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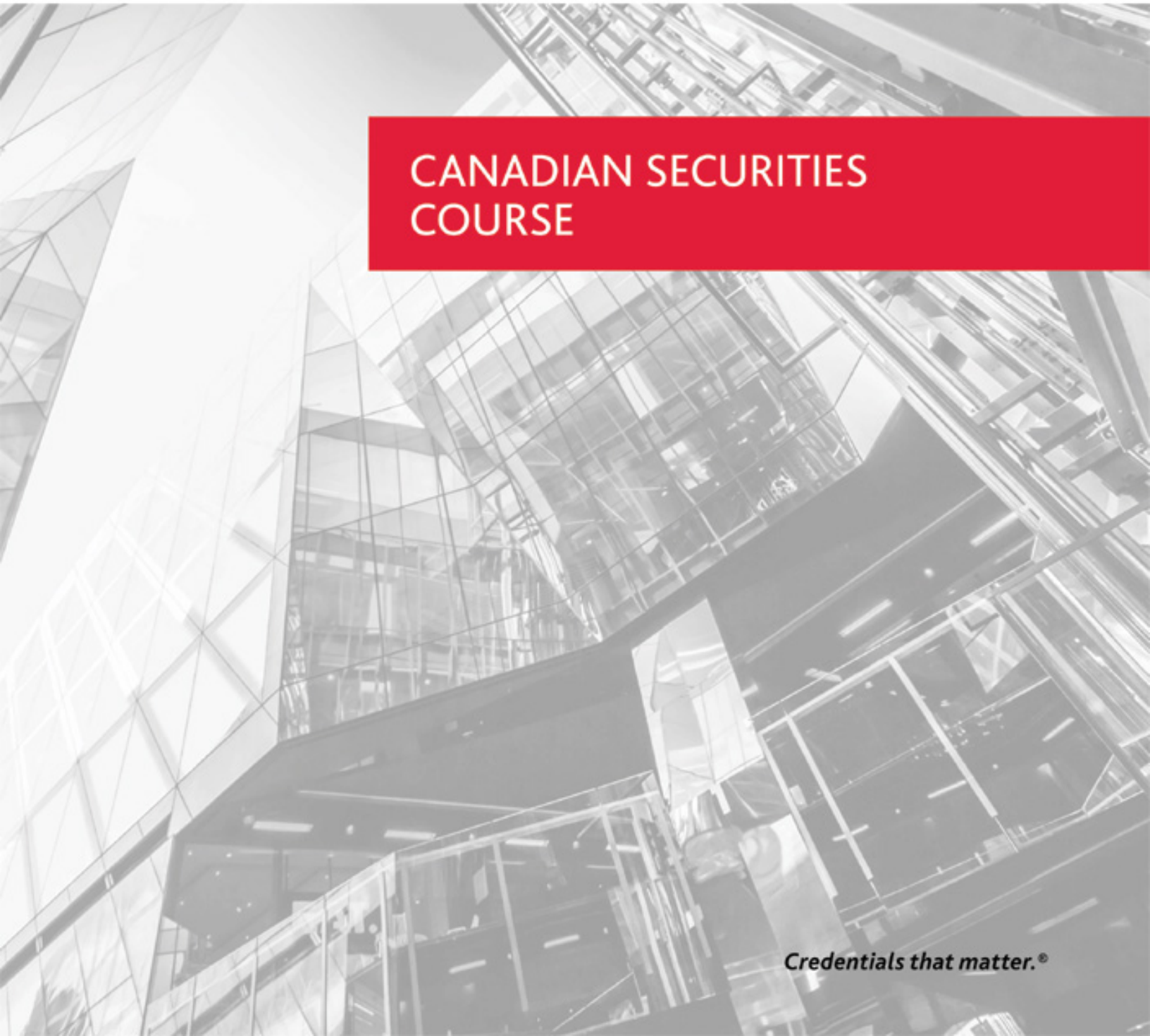

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CANADIAN SECURITIES COURSE (CSC)®

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CHAPTER OVERVIEW

In this chapter, you will learn how analysts use statistical, market, and industry information to value securities and make recommendations on their purchase or sale. You will learn about two methods of analysis: fundamental analysis and technical analysis.

LEARNING OBJECTIVES	CONTENT AREAS
1 | Compare and contrast fundamental and technical analysis.	**Methods of Equity Analysis**
2 | Describe how the three macroeconomic factors affect investor expectations and the price of securities.	**Fundamental Macroeconomic Analysis**
3 | Explain how industries are classified and how industry classifications impact a company's stock valuation.	**Fundamental Industry Analysis**
4 | Describe the tools used in	**Technical**

technical analysis. **Analysis**

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

blue-chip

chart analysis

continuation pattern

contrarian investors

cycle analysis

cyclical industry

declining industries

defensive industries

economies of scale

efficient market hypothesis

emerging growth industries

fundamental analysis

growth industry

head-and-shoulders formation

mature industries

moving average

neckline

quantitative analysis

random walk theory

rational expectations hypothesis

resistance levels

reversal pattern

sentiment indicators

speculative industry

support levels

technical analysis

INTRODUCTION

A great deal of information is available to help investors and their advisors make investment decisions. Resources include market and economic data, stock charts, industry and company characteristics, and a wealth of financial statistical data. All this information can add clarity and perspective to the investment-making process, but the sheer amount can be overwhelming.

Fundamental and technical techniques for analysis are widely discussed in the financial press; however, their use and

interpretation is often misunderstood. To make investment recommendations based on either type of analysis, you must have an understanding of how to interpret the results.

For example, suppose you are considering an investment in the stock of a cyclical company, and you hear reports that an economic slowdown is imminent, what does that information mean for the economy? What does it mean for the industry? And, most pertinent to your decision, what effect will it have on the investment? This chapter will give you the tools to answer those and other questions.

METHODS OF EQUITY ANALYSIS

1 | Compare and contrast fundamental and technical analysis.

Two methods of analysis are used to evaluate equities: **fundamental analysis** and **technical analysis**. Fundamental analysis is a method of assessing the short-, medium-, and long-range prospects of different industries and companies to shed light on security prices. Technical analysis is the study of historical stock prices and stock market behaviour to predict future prices and behaviour.

OVERVIEW OF FUNDAMENTAL ANALYSIS

Fundamental analysis is a method of evaluating capital market conditions, economic conditions (both domestic and global), industry conditions, and the condition of individual companies in an attempt to measure the *intrinsic* or fundamental value of a security. The ultimate goal is to compare the intrinsic value against a security's current price so that you can determine whether the security is overvalued or undervalued.

Fundamental analysts study everything that can affect a security's value. Subjects under scrutiny include macroeconomic factors, such as the economic outlook for Canada's trading partners, and industrial

factors, such as the growth stage of a particular industry. But by far the most important factor affecting a security's price is *the actual or expected profitability of the issuer*. In this regard, fundamental analysts use profitability ratios to determine whether a company can properly service its debt and pay current dividends.

Given the broad range of factors that can influence stock valuation, we examine fundamental analysis in this chapter from a macroeconomic and industry perspective. In Chapter 14, we focus exclusively on company analysis and profitability ratios.

DID YOU KNOW?

Our focus in this chapter is the use of fundamental analysis in valuing equities. However, you can use this method to value most types of securities. For example, you could look at an economic forecast for the future direction of interest rates or the credit rating of an issuer to determine the value of a bond.

OVERVIEW OF TECHNICAL ANALYSIS

Technical analysis is a method of determining the future price direction of a security based on past price movements. Essentially, technical analysts attempt to understand the market sentiment behind the trend in a stock's price instead of its fundamental attributes. They look for recurring patterns that allow them to predict future stock price movements. Technical analysts believe that, by studying the "price action" of the market, they will have better insights into the emotions and psychology of investors. They contend that, because most investors fail to learn from their mistakes, identifiable patterns exist.

Despite these methods of analysis, in times of uncertainty, investors may act irrationally under the influence of mass psychology. Market news can cause investors to overreact and buy or sell quickly en masse, which causes prices to rise or drop suddenly. Sophisticated

computerized trading strategies (called program trading or high-frequency trading) can also have an unintended effect on market prices in a way that is unrelated to the expected earnings of the stocks or their historical price movements.

EXAMPLE

The 2008–2009 subprime mortgage crisis caused extreme uncertainty among investors. As a result, healthy stocks with proven long-term track records collapsed along with weaker stocks. By early 2009, the stock market fell by approximately 50% and did not return to its pre-crisis peak until 2013.

In another example, in May 2010, the Dow Jones Industrial Average fell almost 600 points in less than five minutes but rebounded within 20 minutes. Some argue that the so-called "flash crash" was exacerbated by computerized high-frequency trading.

MARKET THEORIES

Three theories help to explain the behaviour of stock markets: the **efficient market hypothesis**, the **random walk theory**, and the **rational expectations hypothesis**. All three theories suggest that stock markets are efficient and that a stock's price is therefore the best available estimate of its true value; essentially this implies investors cannot consistently 'beat' the market.

Table 13.1 describes the unique assumptions and conclusions of each theory.

Table 13.1 | Stock Market Theories

	Assumptions	Conclusions
Efficient market	Profit-seeking investors in the marketplace react quickly to	A stock's price fully reflects all available

hypothesis	the release of information. When new information about a stock appears, investors reassess the intrinsic value of the stock and adjust their estimation of its price accordingly.	information and represents the best estimate of the stock's true value.
Random walk theory	New information concerning a stock is disseminated randomly over time. Price changes are therefore random and bear no relation to previous prices.	Past price changes contain no useful information because any developments affecting the company have already been reflected in the current price of the stock.
Rational expectations hypothesis	People are rational and have access to all necessary information. People use information intelligently in their own self-interests and make intelligent decisions after weighing all available information.	Past mistakes can be avoided by using available information to anticipate change.

DID YOU KNOW?

If all investors reacted to new information in the same way and at the same time, no investor would be able to outperform others. In fact, however, some investors are sometimes able to consistently outperform index averages like the S&P/TSX Composite Index.

There are three variations of the efficient market hypothesis: weak, semi-strong, and strong. Each variation assumes that a different amount of information is reflected in the prices of securities:

- The weak form assumes that all *past* market information is fully reflected in current prices. With this form, technical analysis is considered to have little or no value.
- The semi-strong form assumes that all *publicly available* information is fully reflected in current prices. With this form, both fundamental analysis and technical analysis have little or no value.
- The strong form assumes that *all* information is fully reflected in current prices, including both publicly available and insider information. In other words, no single investor has information that provides an advantage over any other investor.

Many studies have been conducted over the years to test the three stock market theories. Some evidence supports the theories, whereas other evidence supports capital market inefficiencies. Those inefficiencies may occur for any of the following reasons:

- New information is not available to everyone at the same time.
- Investors do not react in the same way to the same information.
- Not everyone can make accurate forecasts and correct valuation decisions.
- Mass investor psychology and greed may at times cause investors to act irrationally.

DID YOU KNOW?

Investors who believe in the efficient market hypothesis, particularly the strong form, favour a passive investment approach. They are likely to follow a buy-and-hold strategy or invest in market indexes and exchange-traded funds. Investors who reject the hypothesis are likely to use a more

active approach, which involves more buying and selling in an attempt to beat the stock market's average returns.

FUNDAMENTAL MACROECONOMIC ANALYSIS

2 | Describe how the three macroeconomic factors affect investor expectations and the price of securities.

The macroeconomic factors affecting investor expectations (and, therefore, the price of securities) can be grouped into three categories: *fiscal policy*, *monetary policy*, and *inflation*.

Unpredictable events can affect the economy and the prices of securities either favourably or unfavourably. Such events might include international crises such as war, unexpected election results, regulatory changes, technological innovation, and debt defaults. In addition, dramatic changes in the prices of important agricultural, metal, and energy commodities can affect the prices of securities. Many commodity price swings can be predicted by examining supply and demand conditions. Other price changes may not be easy to predict. For example, the Organization of the Petroleum Exporting Countries (OPEC) coordinates production policies of its member countries, thereby affecting the price of oil.

THE FISCAL POLICY IMPACT

The two most important tools of fiscal policy are government expenditure and taxation. These tools are important to market participants because they affect overall economic performance and influence the profitability of individual industries. Levels of expenditure and taxation are usually disclosed in federal and provincial budgets.

TAX CHANGES

By changing tax levels, governments can alter the spending power of individuals and businesses. When governments increase sales or personal income tax levels, people have less disposable income, which curtails their spending. A reduction in tax levels has the opposite effect.

Corporations are similarly affected by tax changes. Higher taxes on profits generally reduce the amount businesses can pay out in dividends or spend on expansion. On the other hand, a reduction in corporate taxes gives companies an incentive to expand.

Several factors limit the effectiveness of fiscal policy. One such factor is the lengthy time lag required to get parliamentary approval for tax legislation. A lag also exists between the time fiscal action is taken and the time the action affects the economy.

GOVERNMENT SPENDING

Governments can affect aggregate spending in the economy by increasing or decreasing their own spending on goods, services, and capital programs.

On the simplest level, an increase in government spending stimulates the economy in the short run, whereas a spending cutback has the opposite effect. Conversely, tax increases lower consumer spending and business profitability, whereas tax cuts boost profits and common share prices. This type of expansionary fiscal policy of tax cuts and spending initiatives can help to spur the economy.

Governments can then target certain sectors of the economy with fiscal policy measures. For example, tax incentives to stimulate growth in housing or investment in technology industries.

Fiscal policies can also be designed to achieve government policy goals. For example, the dividend tax credit and the exemption from

tax of a portion of capital gains were designed to encourage greater share ownership of Canadian companies by Canadians.

Savings by individuals are encouraged through measures such as registered retirement savings plans and tax-free savings accounts. Such policies increase the availability of cash for investments, thereby increasing the demand for securities.

GOVERNMENT DEBT

Higher levels of government debt have a tendency to restrict both fiscal and monetary policy options. Fiscal and monetary decisions affect the overall level of interest rates, the rate of economic growth, and the rate of corporate profit growth. All these factors affect the valuation of stocks.

DID YOU KNOW?

High levels of government and consumer indebtedness impair the government's ability to reduce taxes or increase spending. For example, a government with a high level of debt will find it challenging to use an expansionary fiscal policy of increased spending because the spending will generally need to be financed by borrowing more, thus adding to the debt level and increasing overall interest payments on the outstanding debt.

THE MONETARY POLICY IMPACT

The primary role of the Bank of Canada (the Bank) is to promote Canada's economic and financial welfare, which it does through monetary policy. The Bank achieves this by attempting to preserve the value of the Canadian dollar by keeping inflation low, stable, and predictable. If these goals are threatened, it takes corrective action by changing the rate of monetary growth, thereby encouraging interest rates to reflect the change.

During periods of economic expansion, demand for credit grows (i.e., bank loans for individuals and businesses) and the prices for goods and services generally rise thus creating inflationary pressures. If the Bank believes these pressures are having a negative impact, they can try to restrain the growth rate of money and credit by raising short-term interest rates.

On the other hand, if the economy appears to be slowing down, the Bank may increase the money supply and the availability of credit by reducing short-term interest rates.

Changes in monetary policy affect both interest rates and corporate profits, which are the two most important factors affecting the prices of securities.

MONETARY POLICY AND THE BOND MARKET

When economic growth begins to accelerate, bond yields tend to rise. If inflation begins to rise during an expansion, the Bank most often raises short-term interest rates to slow economic growth and contain inflationary pressures. This action may lead to a more moderate economic growth rate or even a growth recession (i.e., a temporary slowdown that does not become a full recession).

DID YOU KNOW?

When the Bank raises short-term rates to slow the rate of economic growth, a fall in long-term bond yields may result. This effect signals that investors approve of the degree of economic slowing. When short-term yields rise and long-term yields fall, the change in the yield curve is called a *tilting* of the yield curve.

The process is generally as follows:

- As short-term interest rates rise, the rate at which bond yields increase slows down. Long-term bond yields continue to rise, but at a slower pace.

- As the rise in short-term rates continues, economic growth usually slows. Long-term bond prices begin to stabilize and briefly fall below those of equities.
- Suddenly, with each short-term interest rate increase, long-term bond yields fall. Investors purchase long-term bonds under the assumption that a slower economic growth rate will alleviate the need for higher interest rates in the near future. The increased purchase of long-term bonds pushes their yields lower. This drop in yield is crucial evidence for the analyst that bond market participants are satisfied with the slowing of the economy to a more sustainable level of growth.

A decline in long-term rates reduces competition between equities and bonds. On the other hand, higher real bond yields over time increase the degree of competition between bonds and equities and slowly undermine equity markets.

THE IMPACT OF INFLATION

Inflation creates widespread uncertainty and undermines confidence in the future. These factors tend to result in higher interest rates, lower corporate profits, and lower price-earnings multiples.

Inflation leads to higher inventory and labour costs for manufacturers. To maintain their profitability, manufacturers generally try to pass these higher costs on to consumers in the form of higher prices. But higher costs cannot be passed on indefinitely; buyers eventually resist. The resulting squeeze on corporate profits is reflected in lower common share prices.

DID YOU KNOW?

An inverse relationship exists between the rate of inflation and a corporation’s price-earnings multiples. When inflation rises, the value of future cash flows paid by the corporation

will fall. Therefore, if inflation is rising, an investor is more likely to pay a lower price for the earnings of the company. Note that we look at the concept of the price-to-earnings ratio in more detail in the next chapter.

FUNDAMENTAL INDUSTRY ANALYSIS

3 | Explain how industries are classified and how industry classifications impact a company's stock valuation.

Industry and company profitability have more to do with the structure of the industry than with the products or services it sells. Industry structure results from the strategies that companies pursue relative to their competition. Companies pursue the strategies they feel will give them a sustainable competitive advantage and lead to long-term growth. Pricing strategies and company cost structures affect not just long-term growth, but also the volatility of sales and earnings. For this reason, industry structure affects a company's stock valuation.

CLASSIFYING INDUSTRIES BY PRODUCT OR SERVICE

A natural way to classify an industry is by the product or service it produces; for example, the automobile industry comprises companies that manufacture cars. This common classification system is used by investment dealers to define the coverage universe of their equity analysts.

Standard & Poor's (S&P) and Morgan Stanley Capital International (MSCI), two well-known providers of equity indexes, have developed a comprehensive industry and sector classification system known as the Global Industry Classification Standard (GICS). S&P and MSCI assign every company within their indexes to one of 158 sub-

industries. Each sub-industry belongs to one of 69 industries that are apportioned into 24 industry groups and then into 11 sectors.

Table 13.2 lists the 11 sectors and their 24 associated industry groups. Note that some sectors have only one industry group.

Table 13.2 | Sectors and Industry Groups Based on the Global Industry Classification Standard

Sector	Industry Groups
Communication Services	Telecommunication Services Media and Entertainment
Consumer Discretionary	Automobiles and Components Consumer Durables and Apparel Consumer Services Retailing
Consumer Staples	Food and Staples Retailing Food, Beverage, and Tobacco Household and Personal Products
Energy	Energy
Financials	Banks Diversified Financials Insurance
Health Care	Health Care Equipment and Services Pharmaceuticals, Biotechnology, and Life Sciences
Industrials	Capital Goods

	Commercial and Professional Services
	Transportation
Information Technology	Software and Services
	Technology Hardware and Equipment
	Semiconductors and Semiconductor Equipment
Materials	Materials
Real Estate	Real Estate
Utilities	Utilities

Source: “Global Industry Classification Standard (GICS)”, MSCI, www.msci.com/gics.

One problem with classifying an industry by the product or service it sells is that some companies operate in more than one industry. For example, before Canadian Pacific Limited was broken up into several entities, its revenue came from hotels, shipping, and rail. It was a complex process for analysts to compare the company to any other company or analyze its growth potential. However, for companies that operate solely in one industry, analysis provides insight into their short-term behaviour. For example, Barrick Gold Corporation is easily identified as a gold producer, and thus its classification has relevance.

CLASSIFYING INDUSTRIES BY LIFE CYCLE

In theory, all industries exhibit a life cycle characterized by four stages: *emerging growth*, *growth*, *maturity*, and *decline*. However, the length of each stage varies from industry to industry and from company to company.

DID YOU KNOW?

The entire railway industry life cycle in Canada, from its beginnings to its present state of decline, is more than 150 years. In contrast, some high-technology industries have gone through a complete life cycle in just a few years.

Determining where an industry is in its life cycle is an important factor in the valuation process. Throughout that life cycle, sales volume at a company in the industry grows or declines. Therefore, each stage in the cycle affects the relationship between the firm's pricing strategies and its unit cost structure.

EMERGING GROWTH INDUSTRIES

New industries are continually developing to provide products and services that meet society's changing needs and demands. These industries are known as **emerging growth industries**. Today, rapid innovation is particularly evident in software and hardware development in the computer industry.

Emerging growth industries, and companies within them, tend to share certain financial characteristics. Typically, they are unprofitable at first, although future prospects may be promising. Large start-up investments may even lead to negative cash flows. It is sometimes impossible to predict which companies will ultimately survive in a new industry.

DID YOU KNOW?

Emerging growth industries are not always directly accessible to equity investors, especially if privately owned companies dominate the industry, or if the new product or service is only one activity of a diversified corporation.

GROWTH INDUSTRIES

A **growth industry** is one in which sales and earnings are consistently expanding at a faster rate than in most other industries. Companies in these industries are called *growth companies*, and their common shares are called growth stocks. A growth company should have an above-average rate of earnings on invested capital over a period of several years. The company should also be able to continue to achieve similar or better earnings on additional invested capital. It should show increasing sales in terms of both dollars and units, coupled with a firm control of costs.

During the growth period, companies that survive experience increased consumer awareness, lower costs of production, increased competition, rising demand, and growth in profits. Cash flow may or may not remain negative. Growth stocks typically maintain above-average growth over several years, and growth is expected to continue. These companies generally do not pay out large dividends because their growth is often financed through retained earnings. Growth companies therefore tend to exhibit high price-to-earnings ratios and low dividend yields.

DID YOU KNOW?

If the marketplace expects that future growth in a specific growth industry will not meet expectations, growth companies within that industry are likely to have an above average risk of a price decline.

MATURE INDUSTRIES

Mature industries usually experience slower, more stable growth in sales and earnings that more closely matches the overall rate of economic growth. Both earnings and cash flow tend to be positive. Within the same industry, it is more difficult to identify differences in products between companies. For this reason, price competition increases, profit margins usually fall, and some companies expand into new businesses with better growth prospects.

During recessions, stable growth companies usually demonstrate a decline in earnings that is less than that of the average company. Companies in the mature stage usually have sufficient financial resources to weather difficult economic conditions.

DECLINING INDUSTRIES

As industries move from the mature/stable to the declining stage, they tend to stop growing and begin to decline. **Declining industries** produce products for which demand has declined because of changes in technology, an inability to compete on price, or changes in consumer tastes. Cash flow may be large, because there is no need to invest in new plant and equipment. At the same time, profits may be low.

CLASSIFYING INDUSTRIES BY COMPETITIVE FORCES

In his book *Competitive Strategy: Techniques for Analyzing Industries and Competitors* (*Free Press, 1980*), Michael Porter described five basic competitive forces that determine the attractiveness of an industry. According to Porter, those five factors can drastically alter the future growth and valuation of companies within the industry. Table 13.3 outlines and describes Porter's five forces.

Table 13.3 | Porter's Five Competitive Forces

1.	**Threat of new entry**	The ease of entry for new competitors to that industry	Companies choose to enter an industry depending on the amount of capital required, opportunities to achieve **economies of scale**, the existence of established distribution channels, regulatory factors and product differences.

2.	**Competitive rivalry**	The degree of competition between existing firms	This factor depends on the number of competitors, their relative strength, the rate of industry growth, and the extent to which products are unique (rather than simply ordinary commodities).
3.	**Threat of substitutes**	The potential for pressure from substitute products	Other industries may produce similar products that compete with the industry's products.
4.	**Bargaining power of buyers**	The extent to which buyers of the product or service can put pressure on the company to lower prices	The degree of influence depends largely on buyers' sensitivity to price.
5.	**Bargaining power of suppliers**	The extent to which suppliers can put pressure on the company to pay more for the resources they supply	The costs of suppliers' raw materials or inputs affect profit margins or product quality.

In the final analysis, companies can thrive only if they meet customers' needs. Therefore, profit margins can be large only if customers perceive enough value in the goods or services the companies provide.

CLASSIFYING INDUSTRIES BY REACTION TO THE ECONOMIC CYCLE

Industries can be broadly classified according to how they react to the cyclical nature of the economy. Three typical classifications are cyclical, defensive, and speculative.

CYCLICAL INDUSTRIES

Few, if any, industries are immune from the adverse effects of an overall downturn in the business cycle; thus, all industries are cyclical to a degree. However, the term **cyclical industry** is reserved for industries in which the effect on earnings is most pronounced.

Most cyclical S&P/TSX Composite Index companies are large international exporters of commodities such as lumber, base metals (e.g., copper and nickel), or oil. These industries are sensitive to global economic conditions, swings in the prices of international commodities markets, and changes in the level of the Canadian dollar. When business conditions are improving, earnings tend to rise dramatically. In general, cyclical industries fall into three main groups:

- Commodity basic cyclical, such as forest products, base metals, and chemicals
- Industrial cyclical, such as transportation, capital goods, and basic industries (steel and building materials)
- Consumer cyclical, such as merchandising and automobile industries

The energy and gold industries are also cyclical, but they tend to demonstrate slightly different patterns.

The rate of expansion or contraction in the U.S. business cycle tends to significantly influence the profitability of cyclical Canadian companies. Exchange rates are an important secondary factor. Most

cyclical industries benefit from a declining Canadian dollar because their exportable products become cheaper for international buyers.

DEFENSIVE INDUSTRIES

Defensive industries have a relatively stable return on investor equity and tend to do relatively well during recessions. The term **blue-chip** denotes shares of top investment-quality companies, which maintain earnings and dividends through good times and bad. This record usually reflects a dominant market position, strong internal financing, and effective management.

Many investors consider shares of the major Canadian banks to be blue-chip industries; however, bank stock prices are typically sensitive to changes in interest rates. As interest rates rise, banks must raise the rate they pay on deposits to attract funds. At the same time, a large part of their revenue is derived from mortgages with fixed interest rates. The result is a profit squeeze. Bank stock prices are particularly sensitive to changes in long bond yields.

The shares of utility companies (gas, water, electricity) are also considered defensive, blue-chip stocks given their ability to generate consistent earnings over most economic cycles. However, utility stocks that carry large amounts of debt tend to be sensitive to interest rates.

SPECULATIVE INDUSTRIES

All investment in common shares is speculative to some degree because of the risk of ever-changing stock market values. However, the term **speculative industry** usually applies to industries in which risk and uncertainty are unusually high because analysts lack definitive information. Shares in these companies are called *speculative shares*.

Emerging industries are often considered speculative. The profit potential of a new product or service attracts many new companies, and initial growth may be rapid. Inevitably, as the industry

consolidates, many of the original participants are forced out of business, and a few companies emerge as the leaders. The success of these leaders in weathering the developmental period may result from better management, better financial planning, better products and services, or better marketing.

The term *speculative* can also describe any company, even a large one, whose shares are treated as speculative. For example, shares of growth companies can be bid up to high multiples of estimated earnings per share as investors anticipate continuing exceptional growth. If, for any reason, investors begin to doubt these expectations, the price of the stock will fall. In such cases, investors are speculating on the likelihood of continued future growth that may not materialize.

FUNDAMENTAL INDUSTRY ANALYSIS

How is fundamental industry analysis used to determine the value of a stock? *Complete the online learning activity to assess your knowledge*.

TECHNICAL ANALYSIS

4 | Describe the tools used in technical analysis.

Technical analysis is the process of analyzing historical market action in an effort to determine probable future price trends. Technical analysts view the range of data studied by fundamental analysts as too massive and unmanageable to pinpoint price movements with any real precision. Instead, they focus on the market itself, whether it is the commodity, equity, interest rate, or foreign exchange market. They study, and plot on charts, the past and present movements of prices, the volume of trading, and statistical indicators. In the case of equity markets, they track the

number of stocks advancing and declining. The purpose of these activities is to identify recurrent and predictable patterns that can be used to predict future price moves.

Market action includes three primary sources of information: *price*, *volume*, and *time*. Technical analysis is based on the following three assumptions involving these sources of information:

1. **All influences on market action are automatically accounted for or *discounted* in price activity.**	Technical analysts believe that all known market influences are fully reflected in market prices. They believe that there is little advantage to be gained through fundamental analysis; all that is required is that you study the price action itself. By studying price action, technicians attempt to measure market sentiment and expectations. In effect, the technical analyst believes that the market itself indicates the direction and the extent of its next price move.
2. **Prices move in trends, and those trends tend to persist for relatively long periods of time.**	Given this assumption, the primary task of a technical analyst is to identify a trend in its early stages and carry positions in that direction until the trend reverses itself.
3. **The future repeats the past.**	Technical analysts believe that markets essentially reflect investor psychology and that the behaviour of investors tends to repeat itself. Investors tend to fluctuate between pessimism, fear, and panic on one side, and optimism, greed, and euphoria on the other. By comparing current investor

behaviour as reflected through market action with comparable historical market behaviour, the analysts attempt to make predictions. Even if history does not repeat itself exactly, we can still learn a lot from the past, they believe.

COMPARING TECHNICAL ANALYSIS TO FUNDAMENTAL ANALYSIS

In comparing technical analysis with fundamental analysis, remember that the demand and supply factors that technicians observe are the result of fundamental developments in a company's earnings. The main difference between technical and fundamental analysis is the subject of study. The technical analyst studies the effects of supply and demand, which are reflected in price and volume. The fundamental analyst, on the other hand, studies the causes of price movements. Both types of analysts might come to the same conclusion based on very different observations.

DID YOU KNOW?

A fundamental analyst might suggest that a general and prolonged rising trend in equity prices (i.e., a bull market) will likely come to an end as a result of rising interest rates. A technical analyst, on the other hand, might predict that an upward trend is about to reverse based on the appearance of a certain chart formation.

A study of fundamentals can give you a sense of the long-term price prospects for an asset, which might be the first step in making an investment decision. However, at the point where you decide when and at what level to enter or leave a market, technical analysis can serve a vital role.

COMMONLY USED TOOLS IN TECHNICAL ANALYSIS

Technical analysts use four methods to identify trends and possible trend turning points, either alone or in conjunction with each other: chart analysis, quantitative analysis, analysis of sentiment indicators, and cycle analysis.

CHART ANALYSIS

Chart analysis is the analysis of graphic representations of relevant market data. Charts offer a visual sense of where the market has been, which helps analysts project where it might be going. The most common type of chart is one that graphs the high, low, and close (or last trade) of a particular asset (such as a stock, market average, or commodity). Activity may be tracked hourly, daily, weekly, monthly, or even yearly. This type of chart, called a bar chart, often displays the volume of trading at the bottom.

Figure 13.1 shows an example of a bar chart. Other price charts, not discussed here, include candlestick charts, line charts, and point and figure charts.

Figure 13.1 | Daily Bar Chart – S&P 500

A daily bar chart of the S&P 500 Index from February 7 to June 7.

Source: Chart courtesy of StockCharts.com

Technical analysts use price charts to identify **support levels** and **resistance levels**, along with regular price patterns.

- A support level is the bottom price of the trading range for a security. It is the price at which most investors sense value and are willing to buy the security; therefore, demand begins to grow. Most existing holders (or potential short sellers) are unwilling to sell at this price; therefore, supply is low. As demand begins to exceed supply, prices tend to rise above support levels.
- A resistance level is the top price of the trading range, where most investors are willing to sell a security and most buyers are unwilling to buy it. At this point, supply exceeds demand and prices tend to fall.

Figure 13.2 illustrates support and resistance levels.

Figure 13.2 | Varying Levels of Support and Resistance

The Euro index, for example, broke above the resistance level of $1.345 in January 2011 starting a new up trend. This same price level ($1.345) proves to be key support in mid-February during a short-term pullback. Now $1.38 was the new resistance line, but by March, that level too had been broken and acted afterward as a support line.

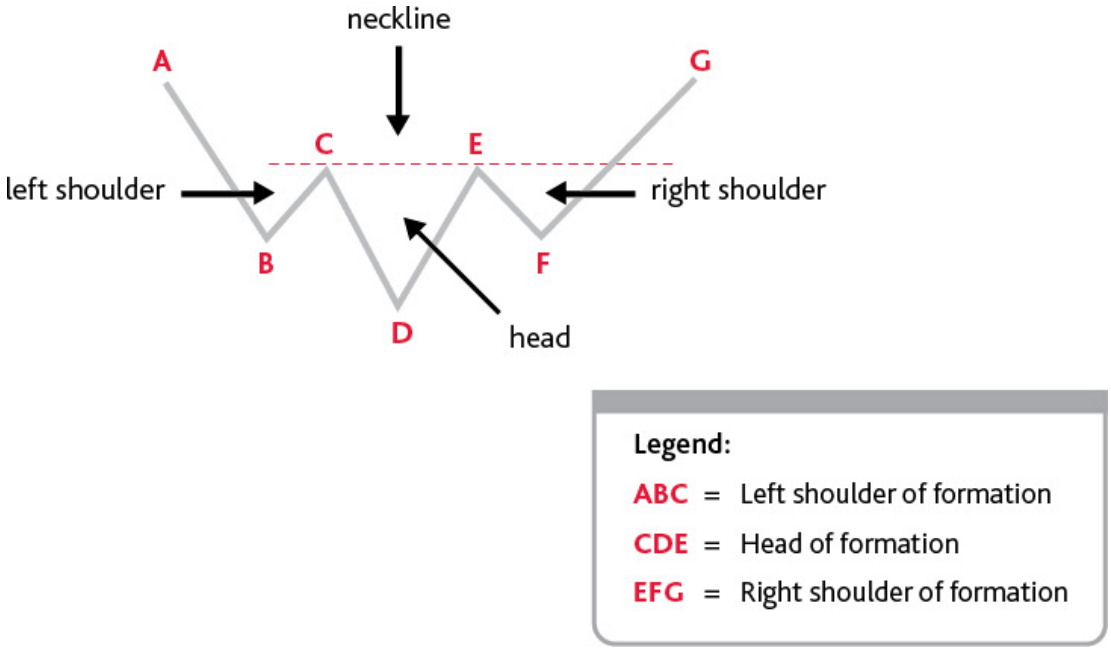
Source: Chart courtesy of StockCharts.com

Chart formations reflect market participant behavioural patterns that tend to repeat themselves. They can indicate either a trend reversal (**reversal pattern**), or a pause in an existing trend (**continuation pattern**).

Reversal patterns are formations on charts that usually precede a sizeable advance or decline in stock prices. There are many types of reversal patterns, but probably the most frequently observed pattern is the **head-and-shoulders formation**. This formation can occur at either a market top, where it is called a *head-and-shoulders top* formation, or at a market bottom, where it is called either an *inverse head-and-shoulders* or a *head-and-shoulders bottom* formation.

Figure 13.3 illustrates a bottom formation.

Figure 13.3 | Head-and-Shoulders Bottom Formation



As Figure 13.3 indicates, the following actions take place:

A to B	A lengthy decline in price occurs, during which time the volume of shares traded can increase as decline deepens, although this may not necessarily occur.
B to C	A minor recovery in price occurs, usually with no substantial increase in volume.
C to D	Price declines again to D, often on increased volume, below the level of the left shoulder (B).
D to E	This second recovery may not consist of any significant increase in volume.

E to F	Another decline occurs, during which volume may or may not increase.
F to G	Further recovery occurs; the greater the symmetry of the right shoulder to the left shoulder, the greater the reliability of the pattern.

The line joining the two recovery points in a head-and-shoulders formation is the **neckline** (points C to E in Figure 13.3, indicated by the broken line). The neckline can extend out to the right of the chart pattern. The final step that confirms a reversal pattern is a price move that carries the stock either below the neckline on increased volume (in a top formation) or above the neckline on increased volume (in a bottom formation). At that point, we see either a *downside break-out* (in a top formation) or an *upside break-out* (points F to G in Figure 13.3).

Figure 13.4 is an example of a downside break-out of a head-and-shoulders top formation in the S&P 500 index.

Figure 13.4 | Head-and-Shoulders Top Formation

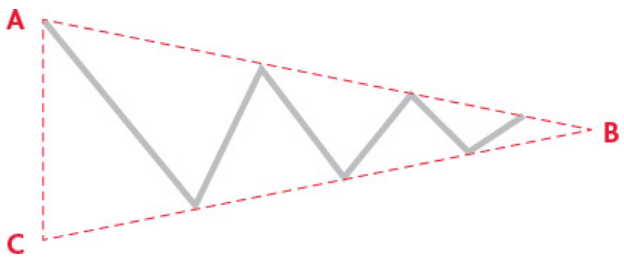
The head-and-shoulders formation was confirmed on the break below the neckline from the right shoulder in August 2011. The market sold off severely on the break.

Source: Chart courtesy of StockCharts.com

Continuation patterns are pauses on price charts before the prevailing trend continues. They typically appear in the form of sideways price movements. These patterns are quite normal and healthy in a trending market and are referred to as a consolidation of an existing trend.

One continuation pattern, called a symmetrical triangle, is shown in Figure 13.5.

Figure 13.5 | Symmetrical Triangle



In the Figure 13.5 formation, the stock trades in a clearly defined area (CB to AB) during a period ranging from three weeks to six months or more. The triangle represents a fairly even struggle between buyers and sellers. The buyers move in to the stock at the bottom line (CB) and the sellers move out of the stock at the top line (AB). This activity repeats itself back and forth until one side proves stronger and the stock price breaks out of the triangle.

Figure 13.6 illustrates a triangle that broke to the downside.

Figure 13.6 | Symmetrical Triangle and Price Projections

A symmetrical triangle formed over three weeks from October 26 to November 13, with a break to the downside on November 16.

Source: CQG, Inc

In most cases, a symmetrical triangle is just a pause in a bull or bear market trend. At times, however, it can indicate a reversal formation. There is no clear way to distinguish whether a triangle indicates a continuation or a reversal, so you must pay close attention to the direction of the break-out.

QUANTITATIVE ANALYSIS

Quantitative analysis is a form of technical analysis that relies on statistics and has thus been greatly enhanced by computer technology. One general category of quantitative analysis tools used to supplement chart analysis is the **moving average**.

A moving average is simply a device for smoothing out fluctuating values in an individual stock or in the aggregate market as a whole. In doing so, either week-to-week or day-to-day, it shows long-term trends. By comparing current prices with the moving average line, you can see whether a change is signalled.

A moving average is calculated by adding the closing prices for a stock over a predetermined period and dividing the total by the number of days or weeks in the period selected. You can follow the same procedure with a market index.

The calculation for a five-week moving average is shown in Table 13.4. (We show a five-week average for simplicity; technical analysts commonly use a 40-week, or 200-day, moving average.)

Table 13.4 | Calculation of Five-Week Moving Average for a Particular Stock Closing Price

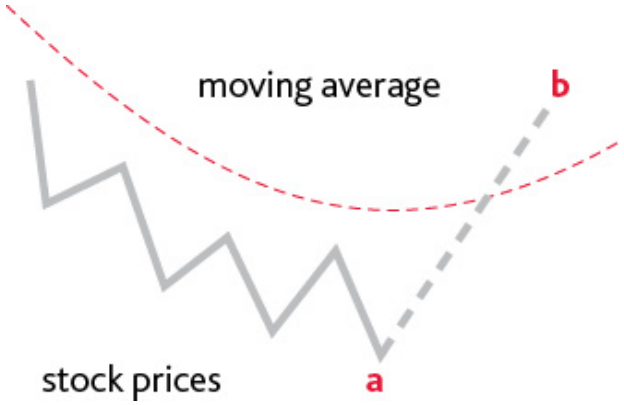
	Closing Price	Five-Week Moving Average
Week 1	$17.50	–

Week 2	18.00	–
Week 3	18.75	–
Week 4	18.35	–
Week 5	19.25	18.37
Week 6	19.42	18.75
Week 7	20.22	19.20
Week 8	22.50	19.95
Week 9	21.75	20.63

Based on the calculation in Table 13.4, an amount of $18.37 is plotted on a chart at the end of five weeks. Note that it takes at least five weeks of closing prices to calculate a five-week moving average. In the next week, the closing price from Week 1 is then dropped, and a new five-week total is calculated for Week 6. The average derived from the new total ($18.75) is then plotted on the chart next to the previous average.

If the overall trend has been down, the moving average line will generally be above the current individual prices, as shown in Figure 13.7.

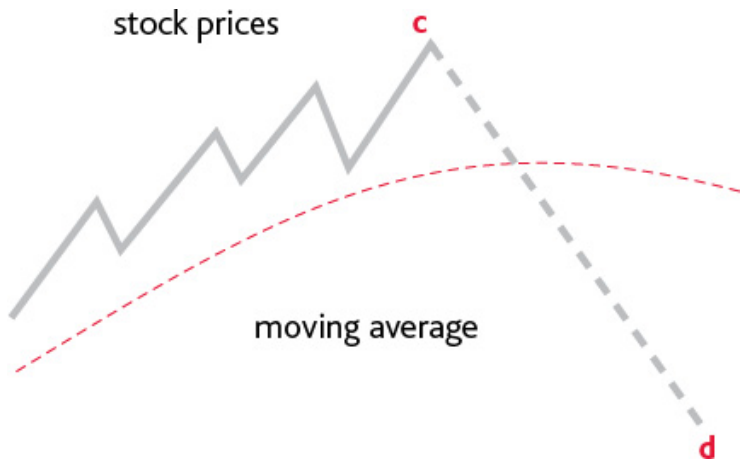
Figure 13.7 | Buy Signal



If the price breaks through the moving average line from below on heavy volume (line a–b in Figure 13.7), and if the moving average line itself starts to move higher, it means that the declining trend has reversed. In other words, it is a *buy signal*.

If the overall trend has been up, the moving average line will generally be below the current individual prices, as shown in Figure 13.8.

Figure 13.8 | Sell Signal



If the price breaks through the moving average line from above on heavy volume (line c–d in Figure 13.8), and if the moving average line itself starts to fall, it means that the upward trend has reversed. In other words, it is a *sell signal*.

Figure 13.9 demonstrates a 65-week moving average.

Figure 13.9 | Moving Average

The 65-week moving average provided support on several occasions throughout this chart. Although the price of gold dipped below the moving average in late 2008, key support at around $700 held and the moving average itself remained in an upward trend.

Source: Chart courtesy of StockCharts.com

SENTIMENT INDICATORS

Sentiment indicators are a measure of investor expectations. **Contrarian investors** use these indicators to determine what the majority of investors expect prices to do in the future, so that they can move in the opposite direction. The contrarian believes, for example, that if the vast majority of investors expect prices to rise, then there probably is not enough buying power left to push prices much higher. The concept is well proven, but sentiment indicators should only be used as evidence to support other technical indicators.

A number of services measure the extent to which market participants are bullish or bearish. If, for example, one of these services indicates that 80% of those surveyed are bullish, it may mean that the market is overbought and that caution is warranted, especially if other indicators provide similar evidence.

CYCLE ANALYSIS

The tools described above can help you forecast the market's probable direction and the probable extent of movement in that direction. **Cycle analysis**, on the other hand, can help you forecast when the market will start moving in a particular direction and when it will ultimately reach its peak or trough. The theory of cycle analysis is based on the assumption that cyclical forces drive price movements in the marketplace.

Cycles can last for periods as short as a few days or as long as decades.

There are four general categories of cycle lengths:

- Long-term (greater than two years)
- Seasonal (one year)
- Primary/intermediate (nine to 26 weeks)
- Trading (four weeks)

Cycle analysis is complicated by the fact that, at any given point, a number of cycles may be operating.

Cycle analysis is useful in identifying a time window when a market peak or trough is expected. However, when it comes to trading, you must supplement cycle analysis with other technical tools, such as trend analysis and chart formations. These tools and formations help confirm that a turn has indeed taken place and that you should take action.

Figure 13.10 identifies a 4-year market cycle.

Figure 13.10 | 4-Year Cycle

The 40-month or 4-year cycle. Notice the various developments that occurred at the end of each 40-month period.

Source: Chart courtesy of StockCharts.com

TECHNICAL ANALYSIS

How is technical analysis used to identify patterns to predict price trends in the future? *Complete the online learning activity to assess your knowledge*.

CASE SCENARIO

Akeilia, one of your favorite clients, has some questions for you about how industries are classified. *Complete the online learning activity to assess your knowledge.*

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, we discussed the following key aspects of fundamental and technical analysis:

- Both fundamental and technical analysis are used to predict changes in the prices of securities. The difference is that technical analysts study the effects of supply and demand on prices, whereas fundamental analysts study the causes of price movements.
- The efficient market hypothesis states that stock prices reflect all available information and thus represent true value. The random walk theory assumes that price changes are random and bear no relation to previous price changes. The rational expectations hypothesis assumes that people are rational and make intelligent economic decisions after weighing all available information.
- Fundamental analysts study three categories of macroeconomic factors: fiscal policy, monetary policy, and inflation. A change in any one of these factors requires a change in investment strategies. Three industry classifications are cyclical, defensive, and speculative. Industries can be further classified by their stage in the life cycle. The four stages are emerging growth, growth, maturity, and decline. Competitive forces in an industry affect growth and risk levels, and therefore help determine stock values.
- Technical analysts chart past and present movements of security prices, volume of trading, and other statistical indicators to identify recurrent and predictable price patterns. Three key

assumptions underlie technical analysis: all market influences are reflected in price activity, prices move in persistent trends, and the future repeats the past.

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 13 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 13 FAQs.

Company Analysis 14

CHAPTER OVERVIEW

In the previous chapter, we examined fundamental analysis from a macroeconomic and an industrial perspective. In this chapter, we discuss company analysis, which fundamental analysts use to measure the actual or expected profitability of the securities issuer. You will learn to examine financial statements and use various financial ratios to determine whether a company is a good prospect for investment.

LEARNING OBJECTIVES	CONTENT AREAS
1 | Identify the factors involved in performing company analysis to determine whether a company represents a good investment.	**Performing Company Analysis**
2 | Explain how to analyze a company's financial statements using trend analysis and external comparisons.	**Interpreting Financial Statements**
3 | Assess company performance using financial ratios.	**Analyzing Financial Ratios**
4 | Distinguish among the criteria used in assessing the investment quality of preferred shares.	**Assessing Preferred Share Investment Quality**

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

asset coverage ratio

capital structure

cash flow

cash flow-to-total debt outstanding ratio

current ratio

debt-to-equity ratio

dividend discount model

dividend payout ratio

dividend yield

earnings per common share

equity value per common share ratio

financial ratios

gross profit margin ratio

interest coverage ratio

inventory turnover ratio

liquidity ratios

net current assets

net profit margin ratio

operating performance ratios

preferred dividend coverage ratio

price-to-earnings ratio

quick ratio

return on common equity ratio

risk analysis ratios

trend ratios

value ratios

working capital

working capital ratio

INTRODUCTION

The decision to invest, or to advise investment, in the securities of a company is a conscious choice that exercises independent judgment. As we learned in the previous chapter, some form of fundamental analysis of relevant factors is necessary to make successful investment choices. In that chapter, we discussed the macroeconomic and industrial factors that are used in fundamental analysis. In this chapter, we focus on company analysis, during which analysts narrow their focus to examine the investment potential of the issuing company itself.

Company analysis is the process of examining company-specific factors that can influence investment decisions. During this process, analysts scrutinize a company's financial information in an effort to answer the following questions:

- Are the company's securities a good investment?
- Do they fit into an investment strategy?
- How will general or specific changes in economic or market factors affect the company?
- Are there risk factors or strengths hidden in the financial statements that may not be readily apparent after a quick review of the company?
- Is there more to the company than is reported in its press releases or in news stories?
- In short, what do the financial numbers tell you about the company?

The reality of investing is that there are no guarantees; all investment has risk of one type or another. One of the goals in performing company analysis is to identify risks and opportunities. This analysis does not eliminate risk, but it can help reduce it.

Our goal in this chapter is to provide you with the tools you need to analyze a company's financial statements to determine its investment potential.

PERFORMING COMPANY ANALYSIS

1 | Identify the factors involved in performing company analysis to determine

whether a company represents a good investment.

Fundamental analysts use a company's financial statements to determine its financial health and potential profitability. You may want to review the accounting principles learned in Chapter 11 before proceeding through this chapter.

STATEMENT OF COMPREHENSIVE INCOME ANALYSIS

The analysis of a company's comprehensive income tells you whether management is making good use of the company's resources.

REVENUE

A company's ability to increase revenue is an important indicator of its investment quality. Clearly, revenue growth is desirable, whereas flat or declining revenue trends are less favourable. Likewise, high growth is usually preferable to a low or moderate rate. However, an analyst should keep informed of the reasons for increase in a company's revenue.

A company's revenue might increase for any of the following reasons:

- It increased the prices or volumes of its products.
- It introduced new products.
- It expanded into a new geographic market.
- It consolidated with another company acquired in a takeover.
- It received an initial contribution from a new plant or diversification program.
- It gained market share at the expense of competitors.
- It launched an aggressive advertising and promotional campaign.
- It benefited from new industry legislation.
- Sales temporarily increased when a strike occurred at a major competitor.
- An upswing in the business cycle occurred.

With this knowledge, the analyst can isolate the main factors affecting revenue and evaluate developments for their positive or negative impact on future performance.

OPERATING COSTS

After studying revenue, the next step is to look at cost of sales.

By calculating cost of sales as a percentage of revenue, you can determine whether costs are rising, stable, or falling in relation to sales. A rising trend over several years may indicate that a company is having difficulty keeping overall costs under control

and is therefore losing potential profits. A falling trend suggests that a company is operating cost effectively and is likely to be more profitable in the future.

You should determine the main reasons for any changes in a company's ability to pay its operating costs, which you can measure using the gross profit margin ratio. Although it may be difficult to identify the causes, it is important to understand them because of the effect they can have on a company's cost structure.

DID YOU KNOW?

The cost at which a company obtains its raw materials has a major impact on its gross profit margin. Companies that rely on commodities such as copper or nickel, for example, may have to cope with wide swings in raw material costs from one year to another.

On the other hand, the introduction of new products or services with wider profit margins can improve profitability.

DIVIDEND RECORD

A company's dividend record shows how much it generally pays out in the form of dividends to shareholders. The company may have an unusually high dividend payout rate (more than 65%, for example) for any of several reasons:

- Stable earnings that allow a high payout
- Declining earnings, which may indicate a future cut in the dividend
- Earnings based on resources that are being depleted, as in the case of some mining companies

Similarly, a low payout may reflect any of the following factors:

- Earnings reinvested back into a growth company's operations
- Growing earnings, which may indicate a future increase in the dividend
- Cyclical earnings at their peak, along with a company policy to maintain the same dividend in good and bad times
- A company policy of buying back shares, rather than distributing earnings through higher dividend payouts

STATEMENT OF FINANCIAL POSITION ANALYSIS

A thorough analysis of the statement of financial position helps you understand a company's overall financial situation. It can reveal important aspects of the company's operations and other factors that may affect its earnings. For example, a company with low interest coverage will be limited in its dividend policy and financing options.

In analyzing the statement of financial position, you should consider the capital structure and the effect of leverage.

THE CAPITAL STRUCTURE

The **capital structure** of a company refers to the distribution of debt and equity that comprise the company's finances. Analysis of a company's capital structure provides an overall picture of its financial soundness because it reveals the amount of debt used in its operations. Analysis may indicate the need for future financing. As well as the type of security that might be used. For example, common shares are suitable for a company with a heavy debt load.

In analyzing capital structure, you should consider the following issues:

- A large debt issue approaching maturity may have to be refinanced by a new securities issue or by other means.
- Retractable securities may also have to be refinanced if investors choose to retract. A similar possibility exists for extendible bonds.
- Convertible securities represent a potential decrease in **earnings per common share** (EPS) through dilution.
- Any outstanding warrants or stock options represent a potential increase in common shares outstanding.

THE EFFECT OF LEVERAGE

The earnings of a company are said to be *leveraged* if the capital structure contains debt or preferred shares. The presence of these securities accelerates any cyclical rise or fall in earnings. In comparison to companies without leverage, earnings increase faster during an upswing in the business cycle and collapse more quickly as economic conditions deteriorate.

The leverage effect of preferred shares on common share earnings is similar to what occurs in a company that uses debt to finance its operations. In either case, a relatively small increase in revenue can produce a magnified increase in EPS. The reverse is true when revenue declines. The market action of shares in leveraged companies shows considerable volatility.

Table 14.1 illustrates the leverage effect of preferred shares on common share earnings at one company in comparison to another company that is unleveraged.

Table 14.1 | The Effect of Leverage on per Share Earnings

	Year One	Year Two	Year Three
Company A (No Leverage)			

Earnings available for dividends	$50,000	$100,000	$25,000
Preferred dividends	Nil	Nil	Nil
Available for common	$50,000	$100,000	$25,000
Per common share	$0.50	$1.00	$0.25
Percentage of return earned on common shares	5%	10%	2.5%
Company B (50% Leverage)			
Earnings available for dividends	$50,000	$100,000	$25,000
Preferred dividends	$25,000	$25,000	$25,000
Available for common	$25,000	$75,000	Nil
Per common share	$0.50	$ 1.50	Nil
Percentage of return earned on common shares	5%	15%	0%

Using the figures outlined in Table 14.1 above, you can calculate the percentage return on common shares for both Company A and Company B.

EXAMPLE

Assume that two companies, Company A and Company B, each have a total capitalization of $1 million and each have earned the following profit:

- Year One: $50,000
- Year Two: $100,000
- Year Three: $25,000

Company A's capitalization consists of 100,000 common shares of no par value. Company A's common share capitalization is equal to its total capitalization of $1 million.

Company B's capitalization consists of 50,000 5% preferred shares of $10 par value and 50,000 common shares of no par value. Company B's preferred share capitalization is $500,000 (calculated as 50,000 preferred shares multiplied by $10 par value). Its common share capitalization is also $500,000.

In Table 14.1, consider the effect of the variation in earnings on the EPS for the two companies. To calculate the percentage return on common shares in Year One for

Company A, divide the $50,000 available for common shares by the $1,000,000 common share capitalization to arrive at 5%, in percentage terms.

To calculate the percentage return on common shares in Year One for Company B, divide the $25,000 available for common shares by the $500,000 common share capitalization to arrive at 5%, in percentage terms.

The stock of Company A is less risky than the stock of Company B, which must pay out interest on senior preferred capital before it can pay dividends to common shareholders. Stock A also has more stable earnings, because it is less vulnerable to shrinkage in earnings, though it is also less sensitive to any increase in earnings.

OTHER FEATURES OF COMPANY ANALYSIS

Other features of company analysis include qualitative analysis, liquidity of common shares, and continuous monitoring.

Qualitative analysis	Qualitative analysis is used to assess management effectiveness and other intangibles that cannot be measured with concrete data. The quality of a company's management is unquestionably a key factor in its success. However, it is not a topic that we can cover in this course. The ability to evaluate the quality of management comes with years of contact with industry and company executives, experience, judgment, and even intuition.
Liquidity of common shares	Liquidity is a measure of how easy it is to sell or buy a security on a stock exchange without causing significant movement in its price. Trading should be sufficient to absorb transactions without undue distortion in the market price. Institutional investors dealing in large blocks of shares require a high degree of liquidity. Information on trading volume is readily available from most financial newspapers and stock exchange publications.
Continuous monitoring	Company analysis involves monitoring the operations of the company for changes that might affect the price of its shares and the dividends it pays. Quarterly financial reports to shareholders are an especially important source of information, which you should scrutinize in detail. You can also glean useful material from prospectuses, trade journals, and financial publications.

INTERPRETING FINANCIAL STATEMENTS

2 | Explain how to analyze a company's financial statements using trend analysis and external comparisons.

You must use caution when analyzing and interpreting financial statements. Companies must adhere to a number of disclosure requirements and accounting rules; however, International Financial Reporting Standards allow flexibility. To attract investors, management sometimes selects accounting practices that show the company's finances in the best possible light.

It is also important to look over the statements in general and read the notes to the financial statements very carefully before delving into ratio analysis. You can often find clues that the financial health of the company may be deteriorating before **financial ratios** relay the same information.

FOR INFORMATION ONLY

Warning Signs Found in the Notes to the Financial Statements

CHANGES IN ACCOUNTING PRACTICES OR AUDITORS

- Look for changes in accounting practices that increase revenue or decrease expenses when the actual operation of the company did not change. The company may be trying to appear more prosperous than it really is.
- Look also for changes in accounting practices that decrease revenue or increase expenses when the actual operation of the company did not change. The company may be trying to deflate its current profit level so that it can appear to be growing in profitability in the next few years.
- A change in the company's auditors may signal a fundamental disagreement between the auditors and company management concerning how certain transactions should be treated.

A SERIES OF MERGERS AND TAKEOVERS

- Companies have been known to acquire a series of smaller companies to manipulate the consolidated statement of financial position in their favour.
- A series of mergers or takeovers may also be an attempt to hide the unprofitability of the parent company.

If any of the above notes are present, it does not necessarily mean that the company is a bad investment. For example, companies often change accounting practices simply in response to new situations, changes in industry practice, or directives from accounting boards. The point is to be aware of these issues when you find them and research further for explanations.

TREND ANALYSIS

Ratios calculated from a company's financial statements for only one year have limited value on their own. They only become meaningful when compared with other ratios. Internally, they can be compared with the same ratios collected from the same company in different years. Externally, they can be compared with the same ratios collected from similar companies or with industry averages.

Analysts identify trends by selecting a base period, treating the figure or ratio for that period as 100, and then dividing it into the comparable ratios for subsequent periods. Table 14.2 shows this calculation for a typical pulp and paper company.

Table 14.2 | Pulp and Paper Company A—Earnings per Share

Year	Year 1	Year 2	Year 3	Year 4	Year 5
EPS	$1.18	$1.32	$1.73	$1.76	$1.99
	1.18	1.32	1.73	1.76	1.99
	1.18	1.18	1.18	1.18	1.18
Trend	100	112	147	149	169

Table 14.2 uses Year 1 as the base period. The EPS for that year, which is $1.18, is treated as equivalent to 100. The **trend ratios** for subsequent years are easily calculated by dividing 1.18 into the EPS for each subsequent year.

A similar trend line over the same period for Pulp and Paper Company B is shown in Table 14.3.

Table 14.3 | Pulp and Paper Company B—Earnings per Share

Year	Year 1	Year 2	Year 3	Year 4	Year 5
EPS	$0.71	$0.80	$0.90	$0.84	$0.78
	0.71	0.80	0.90	0.84	0.78
	0.71	0.71	0.71	0.71	0.71
Trend	100	113	127	118	110

The trend line of each of these two companies shows the characteristic fluctuations of pulp and paper company earnings. For example, adding new machinery often causes temporary over-capacity and reduces earnings until demand catches up with supply.

The trend line for Company B suggests some over-capacity in recent years, as earnings show a decline.

Trend ratio calculations are useful because they clearly show changes. They are also simple to do and easier to interpret than the alternative, which is a two-step method of calculating percentage changes from year to year.

DID YOU KNOW?

A trend line is misleading when the base period is not truly representative. It is also impossible to apply the method if the base period figure is negative, which happens when a loss was sustained in the base year.

EXTERNAL COMPARISONS

Ratios are most useful for comparing financial results of companies in the same or similar industries, for example, when a distiller is compared with a brewer. Differences shown by the trend lines help to put the EPS of each company in historical perspective. They also show how each company has fared in relation to others. Different industries may have different standards for the same ratio, and they often employ a range rather than a specific target number.

Industry standards are different from industry ratios in that the ratios change each year, whereas the standards are relatively static. Ratios show the industry average, which changes depending on the performance of the industry in a particular year. Standards provide a longer-term view and remain the same regardless of the performance of the industry or the economy. For your analysis to be fair and thorough, you must compare the company to both the current average of the industry and the historical industry standard.

EXAMPLE

Assume the current ratio standard for hotels is 1.10 (current assets / current liabilities = 1.10). In the past six months, Granite Hotel Group has an average current ratio of 0.91, which is above all other hotel chains in the industry. Since all companies in the hotel industry are below the current ratio standard, Granite would be considered a top performer in an industry that is underperforming.

ANALYZING FINANCIAL RATIOS

3 | Assess company performance using financial ratios.

Having learned what the financial statements reveal about the financial condition of a company, the next step is to put that knowledge to work by testing the investment merits of the company's bonds and stocks. The tool most commonly used to analyze financial statements is called a ratio, which shows the relationship between two numbers.

Four types of ratios are commonly used to analyze a company's financial statements:

Liquidity ratios	**Liquidity ratios** are used to judge the company's ability to meet its short-term commitments. An example is the **working capital ratio**, which shows the relationship between current assets and current liabilities.
Risk analysis ratios	**Risk analysis ratios** show how well the company can deal with its debt obligations. For example, the **debt-to-equity ratio** shows the relationship between the company's borrowing and the capital invested in it by shareholders.
Operating performance ratios	**Operating performance ratios** illustrate how well management is making use of the company's resources. For example, the **net profit margin ratio** indicates how efficient the company is managed after taking both expenses and taxes into account. These ratios include profitability and efficiency measures.
Value ratios	**Value ratios** show the investor what the company's shares are worth, or the return on owning them. An example is the **price-to-earnings ratio** (P/E ratio), which links the market price of a common share to EPS, and thus allows investors to rate the shares of companies within the same industry.

Ratios must be used in context. One ratio alone does not tell an investor very much. Ratios are not proof of present or future profitability, only clues. An analyst who spots an unsatisfactory ratio may suspect unfavourable conditions. Conversely, analysts may conclude that a company is financially strong after compiling a series of ratios.

The significance of any ratio is not the same for all companies. In analyzing a manufacturing company, for example, analysts pay particular attention to the working capital ratio, which is a measure of the use of current assets. In an electric utility company, however, the working capital ratio is not as important, because electric power is not stored in inventory, but produced at the same time that it is used.

In the sections that follow, we show how to calculate and use the various financial ratios. To make it easier for you to follow and understand the method, we have numbered the items to correspond to the related items in sample financial statements. You can find these statements at the end of this chapter in Appendix A: Financial Statements of Trans-Canada Retail Stores Ltd.

DID YOU KNOW?

For the Canadian Securities Course exam 2, you will not be required to calculate ratios. However, you may be asked to interpret ratio results, compare results between similar companies, and determine how a ratio might be affected by changes in a key ratio component.

LIQUIDITY RATIOS

Liquidity ratios help investors evaluate the ability of a company to turn assets into cash to meet its short-term obligations. If a company is to remain solvent, it must be able to meet its current liabilities, and therefore it must have an adequate amount of **working capital** (also called **net current assets**). Frequent causes of business failure are the lack of sufficient working capital and the inability to liquidate current assets readily.

You can find a company's working capital by subtracting its total current liabilities from its total current assets.

EXAMPLE

The working capital for Trans-Canada Retail Stores Ltd. is calculated as follows:

	Current Assets (Item 9)	$12,238,000
Less:	Current Liabilities (Item 22)	$4,313,000
Equals:	Working Capital	$7,925,000

WORKING CAPITAL RATIO

The working capital ratio, sometimes expressed as the *working capital position* (and also called the **current ratio**), is calculated as follows:

$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$

The ability of a company to meet its obligations, expand its volume of business, and take advantage of financial opportunities as they arise is, to a large extent, determined by this ratio position.

EXAMPLE

The working capital ratio for Trans-Canada Retail Stores Ltd. is calculated as follows:

$$\frac{\text{Item 9}}{\text{Item 22}} = \frac{12{,}238{,}000}{4{,}313{,}000} = 2.84/1$$

The working capital ratio of 2.84 to 1 means Trans-Canada Retail has $2.84 of cash and equivalents to pay for every $1 of its current liabilities.

CURRENT ASSETS

Current assets are cash and other company possessions that can be readily turned into cash (and normally would be) within one year. Current liabilities are liabilities of the company that must be paid within the year.

How you interpret the ratio depends on the type of business, composition of current assets, inventory turnover rate, and credit terms. A current ratio of 2 to 1 is good but not exceptional, because it means that the company has $2 cash and equivalents to pay for each $1 of its debt. However, suppose 50% of Company A's current assets are cash, whereas 90% of Company B's current assets are in inventory. If each company has a current ratio of 2 to 1, Company A is more liquid than B because it can pay its current debts more easily and quickly.

The current ratio does not easily translate into multiples. For example, although a current ratio of 2 to 1 is good, it doesn't follow that a ratio of 20 to 1 is 10 times as good. A company that consistently maintains a current ratio that exceeds 5 to 1 may have an unnecessary accumulation of funds. This situation can arise from sales problems in the form of too much inventory or from financial mismanagement.

Different businesses have different working capital requirements. In a business such as a distillery, for example, several years may elapse before the raw materials are processed and sold as finished products. Consequently, these businesses require a large amount of working capital to finance operations until they receive cash from sales. In a business such as meat packing, the manufacturing process is much shorter, and cash from sales is available to pay current debts sooner. Such a business can safely operate with less working capital.

QUICK RATIO (THE ACID TEST)

The second of the two most common corporate liquidity ratios—the **quick ratio** (also called the acid test) —is shown below:

$$\frac{\text{Current Assets} - \text{Inventories}}{\text{Current Liabilities}}$$

This ratio is a more stringent test than the current ratio. Current assets generally include inventories that can be difficult to convert into cash. For the quick ratio, inventories are subtracted from current assets. The quick ratio, therefore, offers a more conservative test of a company's ability to meet its current obligations. It shows how well current liabilities are covered by cash and by items with a ready cash value.

EXAMPLE

The quick ratio for Trans-Canada Retail Stores Ltd. is calculated as follows:

$$\frac{\text{Item 9} - \text{Item 5}}{\text{Item 22}} \textit{ or}$$

$$\frac{12{,}238{,}000 - 9{,}035{,}000}{4{,}313{,}000} = \frac{3{,}203{,}000}{4{,}313{,}000} = 0.74/1$$

The ratio of 0.74 to 1 means that Trans-Canada Retail has 74 cents of current assets, exclusive of inventories, to meet each $1 of current liabilities.

There is no absolute standard for the quick ratio, but 1 to 1 or better suggests a good liquid position. However, companies with a quick ratio of less than 1 to 1 may be in equally good shape if they have a high rate of inventory turnover. Inventory that is turned over quickly is the equivalent of cash. In our example, a quick ratio of 0.74 to 1 is probably satisfactory because the company we are looking at is a retail store chain. This industry is characterized by large inventories and a high turnover rate.

RISK ANALYSIS RATIOS

The analysis of a company's capital structure enables investors to judge how well the company can meet its financial obligations. Excessive borrowing increases the company's costs because it must service its debt by paying interest on outstanding bank loans, notes payable, bonds, or debentures.

If a company cannot generate enough cash to pay the interest on its outstanding debt, then its creditors could force it into bankruptcy. If the company must sell off its assets to meet its obligations, then investors who have purchased bonds, debentures, or stock in the company could lose some or all of their investment.

ASSET COVERAGE

The **asset coverage ratio** shows a company's ability to cover its debt obligations with its assets after all non-debt liabilities have been satisfied. This ratio typically shows the net tangible assets (NTA) of the company for each $1,000 of total debt outstanding. It enables the debtholder to measure the protection provided by the company's tangible assets after all liabilities have been met.

The asset coverage ratio is calculated as follows:

$$\frac{\text{Tangible Assets} - (\text{Current Liabilities} - \text{Short Term Debt})}{\text{Total Debt Outstanding}}$$

In this ratio, tangible assets are the company's total assets less goodwill and other intangible assets. Current liabilities do not include short-term debt such as short-term

borrowings and the current portion of long-term debt when calculating asset coverage. Total debt outstanding includes all short-term and long-term debt.

EXAMPLE

The asset coverage ratio for Trans-Canada Retail Stores Ltd. is calculated as follows:

$$\frac{\text{Item 10} - \text{Item 2} - \left[\text{Item 22} - (\text{Item 18} + \text{Item 21})\right]}{\text{Item 18} + \text{Item 21} + \text{Item 15}} \textit{ or}$$

$$\frac{19{,}454{,}000 - 150{,}000 - \left[4{,}313{,}000 - (120{,}000 + 1{,}630{,}000)\right]}{120{,}000 + 1{,}630{,}000 + 1{,}350{,}000} = \frac{16{,}741{,}000}{3{,}100{,}000} = 5.4/1$$

The ratio of 5.4 to 1 means that Trans-Canada Retail has, for example, $5,400 in NTA for each $1,000 of total debt outstanding.

The asset value behind each $1,000 of total debt outstanding is important information for debtholders. Normally, they have a claim against all of the company's assets after providing for liability items, which rank ahead of their claims. To be conservative, goodwill and other intangible assets are first deducted from the total asset figure.

In our example, Trans-Canada Retail Stores Ltd. has $5,400 of assets backing each $1,000 of total debt outstanding after providing for current liabilities. (Short-term borrowings and the current portion of long-term debt are excluded from current liabilities, but they are included in total debt outstanding.) If the industry standard for this ratio is that retail companies should have at least $2,000 of NTA for each $1,000 of total debt outstanding, this company meets—in fact, exceeds—this standard.

Industry standards for this ratio vary, due in part to the stability of income provided by the company. Utilities, for example, have a fairly stable source of income and greater assurance of income continuity compared to retail stores. They are characterized by heavy investment in permanent property, which accounts for a large part of their total assets. They are also subject to regulation, which ensures the utility a fair return on its investment.

Trans-Canada Retail Stores Ltd. has only one issue of long-term debt outstanding (item 15). The calculation of NTA for each $1,000 of total debt outstanding is, accordingly, relatively straightforward. If more than one issue were outstanding, the NTA coverage calculation would include that debt figure as well. Of course, the senior issue would be better covered than a junior issue because of its higher priority in interest and liquidation proceeds.

DEBT-TO-EQUITY RATIO

The **debt-to-equity ratio** shows the proportion of borrowed funds used relative to the investments made by shareholders in the company, as follows:

$$\frac{\text{Total Debt Outstanding}}{\text{Equity}}$$

If the ratio is too high, it may indicate that the company has borrowed excessively, which increases its financial risk. If the debt burden is too large, it reduces the margin of safety protecting the debtholder's capital, increases the company's fixed charges, and reduces earnings available for dividends. In times of recession or high interest rates, a high debt burden could cause a financial crisis for the company.

EXAMPLE

The debt-to-equity ratio for Trans-Canada Retail Stores Ltd. is calculated as follows:

$$\frac{\text{Item 21} + \text{Item 18} + \text{Item 15}}{\text{Item 14}} \textit{ or}$$

$$\frac{1{,}630{,}000 + 120{,}000 + 1{,}350{,}000}{13{,}306{,}000} = \frac{3{,}100{,}000}{13{,}306{,}000} = 0.233/1 \textit{ or } 23.30\%$$

The debt-to-equity ratio is often expressed as a percentage of debt to equity. In the example above, the total amount of debt represents 23.3% of the size of the total amount of equity. The ratio of 0.233 to 1 is acceptable for Trans-Canada Retail, if it does not exceed the industry standard for retail stores.

Sometimes, analysts make adjustments to the debt-to-equity ratio by including total liabilities in the calculation. We have excluded other liabilities to focus the ratio on the company's financial risk, based on leverage through the use of debt.

CASH FLOW-TO-TOTAL DEBT OUTSTANDING RATIO

Cash flow from operating activities is a measure of a company's ability to generate funds internally. Other things being equal, a company with a large and increasing cash flow is better able to finance expansion using its own funds, without the need to issue new securities. The increased interest or dividend costs of new securities issues may reduce cash flow and earnings, and issues of convertibles or warrants may dilute the value of common stock.

The **cash flow-to-total debt outstanding ratio** gauges a company's ability to repay the funds it has borrowed. Short-term borrowings must normally be repaid or rolled over within a year. Corporate debt issues commonly have sinking funds requiring annual cash outlays. A company's cash flow from operating activities should therefore be adequate to meet these commitments.

Before calculating this ratio, it is important to recall, from Chapter 11 of this course, the concept of cash flow from operating activities and consider its significance:

Company profits

+ All deductions not requiring a cash outlay, such as amortization
– All additions not received in cash
+ The change in net working capital
= Cash flow from operations

DID YOU KNOW?

Non-cash items are items that do not involve an actual outlay or receipt of funds, such as share of profit of associates.

Because of the substantial size of non-cash items on a statement of comprehensive income, cash flow from operating activities frequently provides a broader picture of a company's earning power than profit alone. Consequently, cash flow from operating activities is considered by some analysts to be a better indicator of the ability to pay dividends and finance expansion. It is particularly useful in comparing companies within the same industry. It can reveal whether a company can meet its debts, even one that shows little or no profit after depreciation.

To properly analyze cash flow, you must consider it in relation to a company's total financial requirements. In financial statements, the cash flow statement puts cash flow from operating activities into perspective as a source of funds available to meet financial requirements.

A relatively high ratio of cash flow to total debt outstanding is considered positive, whereas a low ratio is negative. Analysts use minimum standards to assess debt repayment capacity and provide another perspective on debt evaluation. For example, the industry standard for cash flow-to-total debt ratio for retail stores might be 0.2 to 1 over five years, meaning that annual cash flow in each of the last five fiscal years was at least 20% of total debt outstanding. The ratio is expressed as follows:

$$\frac{\text{Cash Flow from Operating Activities}}{\text{Total Debt Outstanding}}$$

EXAMPLE

The ratio of cash flow to total debt outstanding for Trans-Canada Retail Stores Ltd. is calculated as follows:

$$\frac{\text{Item 34} + \text{Item 36} - \text{Item 32} + \text{Item 37}}{\text{Item 21} + \text{Item 18} + \text{Item 15}} \textit{ or}$$

$$\frac{1{,}298{,}000}{3{,}100{,}000} = 0.4187/1 \textit{ or } 41.87\%$$

The ratio of 0.418 to 1 is acceptable for Trans-Canada Retail because it exceeds the 0.2 to 1 or 20% industry standard for retail stores.

Analysts usually calculate the cash flow-to-total debt outstanding ratio for each of the last five fiscal years. An improving trend is desirable. A declining trend may indicate weakening financial strength unless the individual ratios for each year are well above the minimum standards. For example, if the latest year's ratio was 0.61 (Year 5) and preceding years' ratios were 0.60 (Year 4), 0.63 (Year 3), 0.65 (Year 2), and 0.70 (Year 1), there would seem to be no cause for concern because each year's ratio is strong.

INTEREST COVERAGE

The **interest coverage ratio** reveals the ability of a company to pay the interest charges on its debt based on profit that it has available to pay the interest. The ratio also indicates whether there is a margin of safety for interest coverage. Having such a margin is important because a company's inability to meet its interest charges could result in bankruptcy. When calculating the interest coverage ratio, you must consider *all* interest charges. Default on any one debt may lead to default on other debts.

Interest coverage is generally considered to be the most important quantitative test of risk when considering a debt security. A level of profit well in excess of interest requirements is deemed necessary as a form of protection against possible adverse conditions in future years. Overall, the greater the coverage, the greater the margin of safety.

A common practice is to set criteria to assess the adequacy of interest coverage. For example, you may decide that an industrial company's annual interest requirements in each of the last five years should be covered at least three times by profit available for interest payment in each year. At this level you would consider its debt securities to be of acceptable investment quality.

Interest coverage standards indicate only the *likelihood* that a company will be able to meet its interest obligations. A company may fail to meet the coverage standards while still meeting its debt obligations. However, its securities would be considered a much higher risk because the company lacks an acceptable margin of safety.

It is important that you study the year-to-year trend in the interest coverage calculation. Ideally, a company's coverage will increase year by year to exceed the standard. A stable trend where the company meets the minimum standard is also considered acceptable. However, a deteriorating trend suggests that further analysis is required to determine whether the company's financial position has seriously weakened.

Aberrations in the trend may occur as the result of events such as a prolonged strike. Such abnormalities may cause earnings to drop within a single year but will probably not impair the company's basic financial soundness in succeeding years.

However, a steep decline in earnings should prompt a revaluation of the investment quality of a debt issue. Particularly if the decline is prolonged, it may indicate a fundamental deterioration in the company's financial position. A sudden reversal from a profit to a loss also merits close scrutiny. Other changes, such as a rapid build-up in short-term borrowings, could also reduce the investment quality of a company's debt securities.

The formula used to calculate the interest coverage ratio is as follows:

$$\frac{\text{Profit Before Interest Charges and Taxes}}{\text{Interest Charges}}$$

In general, the lower the ratio, the more a company is burdened by interest charges to cover its debt.

EXAMPLE

The interest coverage ratio for Trans-Canada Retail Stores Ltd. is calculated as follows:

$$\frac{\text{Item 34} + \text{Item 31} + \text{Item 33} - \text{Item 32}}{\text{Item 31}} \textit{ or}$$

$$\frac{1{,}208{,}000 + 289{,}000 + 880{,}000 - 5{,}000}{289{,}000} = \frac{2{,}372{,}000}{289{,}000} = 8.21/1$$

The calculation shows that Trans-Canada Retail's interest charges for the year were covered 8.21 times by profit available to pay them. Stated another way, it shows that the company had $8.21 of profit out of which to pay every $1.00 of interest owing.

Again, standards vary from industry to industry, not only for companies in different industries, but even for those in the same industry. Standards can depend on past earnings records and future prospects. The record of a company's interest coverage is particularly important because the company must meet its fixed charges in both good and bad times. Unless it has already demonstrated its ability to do so, it cannot be said to have passed the test.

A high interest coverage ratio is not required for utility companies. They have a licence to operate in specific areas with little or no competition, and rate boards establish rates that enable them to earn a fair return on their capital investment. By contrast, the profits of retail companies are likely to be more volatile, so a higher coverage ratio is necessary to provide a greater margin of safety.

OPERATING PERFORMANCE RATIOS

The analysis of a company's profitability and efficiency tells the investor how well management is making use of the company's resources.

DID YOU KNOW?

Profit or return calculations are typically expressed as a percentage.

GROSS PROFIT MARGIN

The **gross profit margin ratio**, which is useful both for calculating internal trend lines and for making comparisons with other companies, is calculated as follows:

$$\frac{\text{Revenue} - \text{Cost of Sales}}{\text{Revenue}}$$

This ratio is especially useful in industries such as food products and cosmetics, where both the turnover rate and competition level are high. The gross margin is an indication of the efficiency of management in turning over the company's goods at a profit. In other words, it shows the company's rate of profit after allowing for the cost of sales.

EXAMPLE

The gross profit margin ratio for Trans-Canada Retail Stores Ltd. is calculated as follows:

$$\frac{\text{Item 24} - \text{Item 25}}{\text{Item 24}} \textit{ or}$$

$$\frac{43{,}800{,}000 - 28{,}250{,}000}{43{,}800{,}000} = \frac{15{,}550{,}000}{43{,}800{,}000} = 0.355/1 \textit{ or } 35.50\%$$

Trans-Canada Retail's rate of profit after allowing for cost of sales is 35.50% of revenue.

NET PROFIT MARGIN

The net profit margin ratio, which is an important indicator of the efficiency of a company's management after taking both expenses and taxes into account, is calculated as follows:

$$\frac{\text{Profit} - \text{Share of Profit of Associates}}{\text{Revenue}}$$

Because this ratio is the result of the company's operations for the period, it effectively sums up in a single figure management's ability to run the business.

EXAMPLE

The net profit margin ratio for Trans-Canada Retail Stores Ltd. is calculated as follows:

$$\frac{\text{Item 34} - \text{Item 32}}{\text{Item 24}} \textit{ or}$$

$$\frac{1{,}208{,}000 - 5{,}000}{43{,}800{,}000} = \frac{1{,}203{,}000}{43{,}800{,}000} = 0.0275/1 \quad \textit{or} \quad 2.75\%$$

The calculation shows how much of the money the company collected as revenue remains as its profit.

Not all companies have made investments in associates. Therefore, for comparisons between companies or from one year to another, the profit must be shown before the share of profit of associates is added in.

RETURN ON COMMON EQUITY

The net (or after tax) **return on common equity ratio**, which shows the dollar amount of earnings that were produced for each dollar invested by the company's common shareholders, is as follows:

$$\frac{\text{Profit}}{\text{Total Equity}}$$

The trend in the return on common equity indicates management's effectiveness in maintaining or increasing profitability in relation to the common equity capital of the company. A declining trend suggests that operating efficiency is waning. Further quantitative analysis is needed to pinpoint the causes. For shareholders, a declining ratio shows that their investment is being used less productively. This ratio is very important for common shareholders because it reflects the profitability of their capital in the business.

EXAMPLE

The net return on common equity ratio for Trans-Canada Retail Stores Ltd. is calculated as follows:

$$\frac{\text{Item 34}}{\text{Item 14}} \textit{ or}$$

$$\frac{1{,}208{,}000}{13{,}306{,}000} = 0.0908/1 \quad \textit{or} \quad 9.08\%$$

The calculation shows that Trans-Canada Retail earned $0.09 for each dollar invested.

INVENTORY TURNOVER RATIO

The **inventory turnover ratio**, which measures the number of times that a company's inventory is turned over in a year, is calculated as follows:

$$\frac{\text{Cost of Sales}}{\text{Inventory}}$$

It may also be expressed as a number of days required to achieve turnover, as shown in the example that follows. A high turnover ratio is considered good because the company requires a smaller investment in inventory than one producing the same revenue with a low turnover.

EXAMPLE

The inventory turnover ratio for Trans-Canada Retail Stores Ltd. is calculated as follows:

$$\frac{\text{Item 25}}{\text{Item 5}} \textit{ or}$$

$$\frac{28{,}250{,}000}{9{,}035{,}000} = 3.13/1$$

To calculate inventory turnover in days, divide 365 (days) by the inventory turnover ratio, as follows:

$$\frac{365}{3.13} = 116.61$$

The calculation shows that Trans-Canada Retail turns over its inventory 3.13 times over the span of a year, or every 116.61 days.

The inventory turnover ratio can be used to compare one company's efficiency in turning over inventory with others in the same field. It also provides an indication of the adequacy of a company's inventory for the volume of business being handled.

Inventory turnover rates vary from industry to industry. For example, companies in the food industry turn over their inventory more rapidly than aircraft manufacturers because the process of making and selling planes takes longer.

EXAMPLE

Examples of high-turnover industries include those involved in baked goods, cosmetics, dairy products, groceries, and meat packing—in other words, industries dealing in perishable goods and quick-consumption, low-cost items.

Examples of low-turnover industries include distillers, producers of fur goods, heavy machinery manufacturers, steel plants, and wineries.

If a company has an above-average inventory turnover rate for its industry, it generally indicates a better balance between inventory and sales volume. The company is unlikely to be caught with too much inventory if the price of raw materials drops or the market demand for its products falls. There should also be less wastage due to deterioration in quality or marketability. On the other hand, if inventory turnover is too high in relation to industry norms, the company may have problems with shortages resulting in lost sales.

DID YOU KNOW?

A company may have a low inventory turnover rate for any of the following reasons:

- The inventory contains an unusually large portion of unsaleable goods.
- The company has over-bought inventory.
- The value of the inventory has been overstated.

Because a large part of a company's working capital is usually tied up in inventory, the way in which the inventory position is managed directly affects the company's earnings and the rate of return earned on the company's common equity.

VALUE RATIOS

Value ratios (sometimes called *market ratios*) measure the way the stock market rates a company by comparing the market price of its shares to information in its financial statements. Price alone does not tell analysts much about a company unless there is a common way to relate the price to dividends and earnings. Value ratios do this.

PERCENTAGE DIVIDEND PAYOUT RATIOS

The **dividend payout ratio**, which indicates the percentage of the company's profit that is paid out to shareholders in the form of dividends, is calculated as follows:

$$\frac{\text{Common Share Dividends}}{\text{Profit}} \times 100$$

Deducting the percentage of earnings being paid out as dividends from 100 gives the percentage of earnings remaining in the business to finance future operations.

EXAMPLE

The dividend payout ratio for Trans-Canada Retail Stores Ltd. is calculated as follows:

$$\frac{\text{Item 41}}{\text{Item 34}} \times 100 \textit{ or}$$

$$\frac{387{,}500}{1{,}208{,}000} \times 100 = 32.08\%$$

The calculation shows that Trans-Canada Retail paid out 32.08% of available earnings as dividends in the year; therefore, 67.92% was reinvested in the business.

Dividend payout ratios are generally unstable because they are tied directly to the earnings of the company, which change from year to year. The directors of some companies try to maintain a steady dividend rate through good and poor times to preserve the credit rating and investment standing of the company's securities. If dividends are greater than earnings for the year, the payout ratio will exceed 100%. Dividends are then taken out of retained earnings, which erodes the value of the shareholders' equity.

EARNINGS PER COMMON SHARE

The EPS ratio, which shows the earnings available to each common share, is calculated as follows:

$$\frac{\text{Profit}}{\text{Weighted Average Number of Common Shares Outstanding}}$$

The ratio is an important element in judging an appropriate market price for buying or selling common stock. A rising trend in EPS has favourable implications for the price of a stock.

In practice, a common stock's market price reflects the anticipated trend in EPS for the next 12 to 24 months, rather than the current EPS. Thus, it is common practice to estimate EPS for the next year or two. Accurate estimates for longer periods are difficult because of the many variables involved.

EXAMPLE

Assume that the notes to the financial statements for Trans-Canada Retail Stores Ltd. indicate that the weighted-average number of common shares outstanding is 387,500.

The EPS ratio for Trans-Canada Retail is therefore calculated as follows:

$$\frac{\text{Item 34}}{\text{387,500 shares}} \textit{ or}$$

$$\frac{\$1{,}208{,}000}{387{,}500} = \$3.12 \text{ per share}$$

The calculation shows that Trans-Canada Retail has earned $3.12 for each common share.

Because of the importance of EPS, analysts pay close attention to possible dilution of the stock's value. Dilution occurs when the number of shares outstanding increases, which results in each existing shareholder owning a smaller percentage of the company. It may be caused by changes such as the conversion of outstanding convertible securities, the exercise of warrants, or shares issued under employee stock options.

Fully diluted EPS can be calculated on common stock outstanding plus common stock equivalents such as convertible preferred stock, convertible debentures, stock options (under employee stock-option plans), and warrants. This figure shows the dilution in EPS that would occur if all equivalent securities were converted into common shares.

EXAMPLE

Because Trans-Canada Retail Stores Ltd. has no convertible securities, let us consider the statements of Company ABC, which show the following information:

- 300,000 warrants can be converted on a 1-for-1 basis into common shares.
- The weighted-average number of common shares is 2,800,000 common shares.
- The company had a profit of $10,455,000.

$$\frac{\text{Profit}}{\text{Weighted Average Number of Common Shares Outstanding}} \textit{ or}$$

$$\frac{\$10{,}455{,}000}{2{,}800{,}000} = \$3.73 \text{ per share}$$

To calculate fully diluted EPS, you would have to increase the number of common shares by 300,000 because 300,000 warrants would be converted on the basis of 1 to 1.

The formula is therefore adjusted as follows:

$$\frac{\text{Adjusted Profit}}{\text{Adjusted Weighted Average Number of Common Shares Outstanding}} \textit{ or}$$

$$\frac{\$10{,}455{,}000}{2{,}800{,}000 + 300{,}000} = \frac{\$10{,}455{,}000}{3{,}100{,}000} = \$3.37 \text{ per share}$$

The calculation shows that Company ABC has $3.37 in fully diluted earnings for each common share.

Profit, after all prior claims have been met, belongs to the common shareholders. The shareholders will therefore want to know how much has been earned on their shares. If profit is high, directors may declare and pay out a good portion as dividends. Even in growth companies, directors may decide to make at least a small dividend payment because they realize that shareholders like to receive income. On the other hand, if profit is low or the company has suffered a loss, they may not pay dividends on the common shares.

Describing earnings in terms of common shares shows shareholders the profitability of their ownership interest in the company and whether dividends are likely to be paid. In the Trans-Canada Retail Stores example, earnings are $3.12 for each common share. Because regular dividends of $1.00 per share per year are being paid on common shares, the calculation also indicates that the dividend is well protected by earnings. In other words, the EPS is $2.12 more than regular dividend payments.

Because common share dividends are declared and paid at the discretion of a company's board of directors, no rules govern the amount likely to be paid out at a given level of profit. Dividend policy varies from industry to industry and from company to company.

Before a company can pay a dividend, it must have sufficient earnings and working capital. It is up to the directors to consider pertinent factors and decide whether to pay a dividend; and if so, how large the payment should be.

DID YOU KNOW?

When estimating the dividend possibilities of a stock, you should consider the following factors:

- The amount of profit for the current fiscal year
- The stability of profit over a period of years
- The amount of retained earnings and the rate of return on those earnings
- The company's working capital
- The policy of the board of directors
- Plans for expanding (or contracting) operations
- Government dividend restraints (if any)

DIVIDEND YIELD

The **dividend yield** on common stock is the annual dividend rate expressed as a percentage of the current market price of the stock. It represents the investor's return

on the investment, as follows:

$$\frac{\text{Indicated Annual Dividend per Share}}{\text{Current Market Price}} \times 100$$

EXAMPLE

Assuming a current market price of $26.25 for the common shares of Trans-Canada Retail Stores Ltd., the yield is calculated as follows:

$$\frac{1.00}{26.25} \times 100 = 3.81\%$$

The calculation shows that the dividend yield on Trans-Canada Retail's common stock is 3.81% of the current market price.

Dividend yields allow analysts to make a quick comparison between the shares of different companies. However, to make a thorough comparison, you must also consider the following factors:

- The differences in the quality and record of each company's management
- The proportion of earnings reinvested in each company
- The equity behind each share

Consider all these factors during a company analysis, in addition to yield, and preferably over several years. Only then can you make an informed evaluation.

EQUITY VALUE PER COMMON SHARE

The **equity value per common share ratio**, also called *book value per common share*, measures the net asset coverage for each common share if all assets were sold and all liabilities were paid, as follows:

$$\frac{\text{Equity}}{\text{Number of Common Shares Outstanding}}$$

DID YOU KNOW?

Note from the calculations that the number of common shares outstanding is not the same number as the weighted-average number of common shares outstanding. The weighted-average number of common shares outstanding is calculated by taking the number of shares outstanding and multiplying it by the proportion of the reporting period for which the shares were outstanding, and then summing the total of each portion. This calculation allows a company to incorporate any changes in the number of outstanding shares over a reporting period. As a simplified example, if the number of outstanding shares in the first six months is 1.2 million, and in the second six months is

1.45 million, the weighted average of these two periods would be 1.325 million shares (1.2 million × 0.50 + 1.45 million × 0.50).

EXAMPLE

Assume that the notes to the Trans-Canada Stores Ltd.'s financial statements report that the company has 400,000 common shares outstanding as of December 31, 20XX, as follows:

$$\frac{\text{Item 14}}{400{,}000} \textit{ or}$$

$$\frac{13{,}306{,}000}{400{,}000} = \$33.27 \text{ per Common Share}$$

The calculation shows that equity for each of Trans-Canada Retail's common share is $33.27.

There is no simple answer as to what constitutes an adequate level of equity value per common share. A per-share equity (or book) value figure is sometimes used in appraising common shares. However, in actual practice the equity value per common share may be very different from the market value per common share.

Equity per share is only one of many factors to be considered in appraising a given stock. Many shares sell for considerably less than their equity value, whereas others sell for far in excess of their equity value.

This disparity between equity and market values is usually accounted for by the actual or potential earning power of the company. The shares of a company with a high earning power command a better price in the market than the shares of a company with little or no earning power, even when the shares of both companies may have the same equity value. Thus, we cannot quote a meaningful standard for an adequate equity value per common share.

PRICE-TO-EARNINGS RATIO

The P/E ratio is probably the most widely used of all financial ratios because it combines all the other ratios into one figure. It represents the ultimate evaluation of a company and its shares by the investing public. The P/E ratio is calculated only for common stocks, as follows:

$$\frac{\text{Current Market Price of Common Shares}}{\text{Earnings per Share}}$$

Note: The EPS figure shown is for the latest 12-month period.

EXAMPLE

Assuming that the current market price of Trans-Canada Retail's common stock is $26.25, and that the company's EPS is $3.12, the P/E ratio is calculated as follows:

$$\frac{26.25}{3.12} = 8.41/1$$

The calculation shows that the current market price of Trans-Canada Retail's common stock is 8.41 times the EPS value.

The main reason for calculating EPS, apart from determining dividend protection, is to compare it to the share's market price. The P/E ratio expresses this comparison in one convenient figure, showing that a share is selling at so many times its actual or anticipated annual earnings. This figure allows you to compare the shares of one company with those of another.

Consider Table 14.4, which shows the earnings per share, current market price, and P/E ratio of two companies: Company A and Company B.

Table 14.4 | Earnings per Share, Current Market Price, and P/E Ratio

	Earnings per Share	Current Market Price	P/E Ratio
Company A	$2.00	$20.00	10:1
Company B	$1.00	$10.00	10:1

Although the EPS of Company A ($2) is double that of Company B ($1), the shares of each company represent equivalent *value* because A's shares cost twice as much as B's. In other words, both companies are selling at 10 times earnings.

Two types of elements determine the quality of an issue and are therefore represented in the P/E ratio:

- Tangible elements contained in financial data, which can be expressed in ratios relating to liquidity, earnings trends, profitability, dividend payout, and financial strength
- Intangible elements, such as quality of management, nature and prospects for the industry in which the issuing company operates, its competitive position, and its individual prospects

All these factors are taken into account when investors and speculators collectively decide what price a share is worth.

DID YOU KNOW?

To compare the P/E ratio for one company's common shares with that of other companies, the companies should usually be in the same industry. Analysts also consider individual company P/Es in relation to the relevant market index or average. They compare that number with an average relative P/E over some period of time, such as three years or five years.

In the Trans-Canada Retail Stores example, we calculated the price-earnings ratio on the earnings of the company's latest fiscal year. In practice, however, most investment analysts and firms make their own projections of a company's earnings for the next twelve-month period. They then calculate P/E ratios on these projected figures in relation to the stock's current market price. Because of the many variables involved in forecasting earnings, you should use estimates in calculations with great caution.

The P/E ratio helps analysts determine a reasonable value for a common stock at any time in a market cycle. By calculating a company's P/E ratio over a number of years, you will find considerable fluctuation, with high and low points. If the highs and lows of a particular stock's P/E ratio remain constant over several stock market cycles, they indicate selling and buying points for the stock. A study of the P/E ratios of competitor companies and that of the relevant market subgroup index also provides a perspective.

The P/E ratio comparison assists in the selection process. For example, if two companies of equal stature in the same industry both have similar prospects but different P/E ratios, the company with the lower P/E ratio is usually the better buy.

As a rule, P/E ratios increase in a rising stock market or with rising earnings. Earnings that increase over time are a favourable sign; the company's stock price should also rise over time. Investors see rising earnings as a positive development and are willing to pay a higher price for the stock. The increase in the stock price is usually greater than the increase in earnings; therefore, the P/E ratio increases. The reverse is true in a declining market or when earnings decline.

Generally, it is assumed that when investor confidence is high, P/E ratios are also high, and when confidence is low, P/E ratios are low. Because the P/E ratio is an indicator of investor confidence, its highs and lows may vary from market cycle to market cycle. Much depends on changes in investor enthusiasm for a company or an industry over several years. The P/E ratios of individual stocks are also affected by many factors specific to individual companies, such as comparative growth rates, earnings quality, and risk due to leverage or stock liquidity.

DIVIDEND DISCOUNT MODEL

The widely used **dividend discount model** (DDM) illustrates, in a simple way, how companies with stable growth are priced, at least in theory. The model relates a stock's current price to the present value of all expected future dividends into the indefinite future.

The DDM assumes that there will be an indefinite stream of dividend payments, whose present values can be calculated. It also assumes that these dividends will grow at a constant rate (represented as g the growth rate in the formula). In fact, this version of the DDM is more accurately known as the constant or Gordon growth model. For our purposes in the CSC, we continue with reference to the DDM.

The discount rate used is the market's required or expected rate of return for that type of investment. We can think of the required rate of return as the return that compensates investors for investing in that stock, given its perceived risk. The formula and definitions of the relevant variables for calculating the DDM are shown in Figure 14.1.

Figure 14.1 | Dividend Discount Model

$$\text{Price} = \frac{\text{Div}_0(1+g)}{r-g} = \frac{\text{Div}_1}{r-g}$$

Where:

Price = The current intrinsic value of the stock in question

Div_0 = The dividend paid out in the current year

Div_1 = The expected dividend paid out by the company in one year

r = The required rate of return on the stock

g = The assumed constant growth rate for dividends

EXAMPLE

ABC Company will pay a dividend of $0.94 this year. If the company reports a constant long-term growth rate (g) of 6%, ABC will pay out an expected dividend in one year's time of $0.996 or $1.00 ($0.94 × 1.06).

It is technically incorrect to assume that "r" in the denominator is equal to the general level of interest rates or that "g" is simply equal to growth in corporate profits. However, these simplifying assumptions make it possible to illustrate how changes in interest rates and corporate profits affect stock price valuation during a business cycle. Other, more complex formulas are used to accommodate changing dividends and changing growth rates.

DID YOU KNOW?

Although the DDM has many practical limitations, it is a useful way to think of stock valuation.

EXAMPLE

ABC Company is expected to pay a $1 dividend next year. It has a constant long-term growth rate (g) of 6% and a required return (r) of 9%. Based on these inputs, the DDM is calculated as follows:

$$\text{Price} = \frac{\text{Div}_1}{r - g} = \frac{1.00}{0.09 - 0.06} = 33.33$$

The DDM tells us that, based on the expected dividend, the required return and the growth rate of dividends, the stock has an intrinsic value of $33.33. Thus, if ABC is selling for $25 in the market, the stock would be considered undervalued because it is selling below its intrinsic value. Conversely, if ABC is selling for $40, the stock would be considered overvalued because it is selling above its intrinsic value.

NFR INC. COMPANY ANALYSIS

In this activity, you will practice company analysis on the fictitious Canadian company NFR. Can you apply the formulas you learned to calculate this company's key ratios? *Complete the online learning activity to assess your knowledge*.

COMPARING PERFORMANCE

In this activity, you will review and compare the ratios of the fictitious Canadian company NFR Inc. against another company in the same industry. Can you determine which company offers the better investment? *Complete the online learning activity to assess your knowledge*.

ASSESSING PREFERRED SHARE INVESTMENT QUALITY

4 | Distinguish among the criteria used in assessing the investment quality of preferred shares.

As we discussed in Chapter 8 of the course, preferred shares have characteristics that differ from those of common shares. For example, preferred shareholders are entitled to a fixed dividend and they do not have the right to vote. In addition, the prices of preferred shares act more like bonds than common stocks. For these reasons, preferred shares are evaluated differently than common shares.

INVESTMENT QUALITY ASSESSMENT

The investment quality assessment of preferred shares hinges on three critical questions:

- Do the company's earnings provide ample coverage for preferred dividends?
- For how many years has the company paid dividends without interruption?
- Is there an adequate cushion of equity behind each preferred share?

Analysts used four key tests to answer these questions:

1. **Preferred dividend coverage ratio**	Like interest coverage, the **preferred dividend coverage ratio** indicates the margin of safety for preferred dividends. It measures the amount of money a firm has to pay dividends to preferred shareholders. The higher the ratio the better, as it indicates the company has little difficulty in paying its preferred dividend requirements. Typically, preferred dividend coverage is calculated for the last five years, and a trend is plotted. Ideally, a rising or stable trend is revealed.
2. **Equity (or book value) per preferred share**	Preferred shares rank before common shares in any liquidation, winding up, or distribution of assets. When the preferred shareholders' claims have been met, the holders of common shares are entitled to what is left. Analysts like to see that the minimum equity value per preferred share in each of the last five fiscal years is at least two times the dollar value of assets that each preferred share would be entitled to receive in the event of liquidation.
3. **Dividend payments**	As an analyst, you should ask whether the company has established a record of continuous dividend payments to its preferred shareholders. You can obtain this information from individual company annual reports.
4. **Credit assessment**	Just as with bonds, a company's preferred shares may be rated by one of the recognized securities rating services. During your analysis, you should ask what the rating is and is it high enough to merit investment.

An unexpected change in the rating of a preferred share issue usually affects the shares' market price. An unexpected downgrade to a lower rating has negative implications, whereas an upgrade is a favourable development.

SELECTING PREFERRED SHARES

Other factors to consider when investigating equity securities include marketability, volume of trading, and research coverage by investment firms. The following questions are specific to preferred shares, whether they are straight or convertible:

- What features (such as cumulative dividends or sinking funds) and what protective provisions have been built into the issue?
- Is the yield from the preferred acceptable compared to yields from other, similar investments?

If the preferred are convertible, you should ask additional questions:

- Is the outlook for the common stock positive? A conversion privilege is valuable only if the market price of the common rises above the conversion price during the life of the conversion privilege.
- Is the life of the conversion privilege long enough? The longer the life of the conversion privilege, the greater the opportunity for the market price of the common and preferred to respond to favourable developments.

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, we discussed the following key aspects of company analysis:

- Company earnings reveal how well management makes use of company resources. The statement of financial position reveals important aspects of company operations and factors that may affect earnings.
- Financial ratios are meaningful only when compared with other ratios over a period. Ratios are most useful when comparing financial results of companies in the same or similar industries.
- Four types of ratios commonly used to analyze a company's financial statements are as follows:
  - Liquidity ratios measure a company's ability to meet its short-term commitments.
  - Risk analysis ratios show how well the company can deal with its debt obligations.
  - Operating performance ratios illustrate how well management makes use of the company's resources.

- Value ratios reveal what the company's shares are worth in comparison to the shares of companies in the same industry.

- The investment quality of a company's preferred shares is based on the following three factors:
  - The company's ability to generate enough earnings to cover its preferred dividend obligations
  - Whether the company has consistently paid dividends without interruption
  - The amount of equity behind each preferred share
- The investment quality of a company's preferred shares is evaluated based on the preferred dividend coverage ratio, the equity per preferred share, the record of continuous dividend payments, and independent credit assessments.
- The rating services assign ratings to a number of Canadian preferred shares.

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 14 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 14 FAQs.

APPENDIX A: FINANCIAL STATEMENTS OF TRANS-CANADA RETAIL STORES LTD.

The examples in this chapter are based on the financial statements on the following pages. The statements are simplified for ease of use. They differ from real financial statements in the following three ways:

- Comparative figures from the previous year are not shown.
- Notes to financial statements are not included.
- The consecutive numbers on the left side of the statements do not appear in real reports; they are provided here for reference.

Note: It is assumed that Trans-Canada Retail Stores Ltd. is a non-food retail chain.

Trans-Canada Retail Stores Ltd.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

as at December 31, 20XX

ASSETS			
1.	Property, plant and equipment	$	6,149,000
2.	Goodwill		150,000
3.	Investments in associates		917,000
4.	Total Non-current assets		7,216,000
5.	Inventories		9,035,000
6.	Prepaid expenses		59,000
7.	Trade receivables		975,000
8.	Cash and cash equivalents		2,169,000
9.	Total Current Assets		12,238,000
10.	TOTAL ASSETS	$	19,454,000
EQUITY AND LIABILITIES			
11.	Share capital	$	2,314,000
12.	Retained earnings		10,835,000
			13,149,000
13.	Non-controlling interest		157,000
14.	TOTAL EQUITY	$	13,306,000
15.	Long-term debt		1,350,000
16.	Deferred tax liabilities		485,000
17.	TOTAL NON-CURRENT LIABILITIES	$	1,835,000
18.	Current portion of long-term debt		120,000
19.	Taxes payable		398,000

20.	Trade payables		2,165,000
21.	Short-term borrowings		1,630,000
22.	TOTAL CURRENT LIABILITIES	$	4,313,000
23.	TOTAL EQUITY AND LIABILITIES	$	19,454,000

Approved on behalf of the Board:
[Signature], Director
[Signature], Director

Trans-Canada Retail Stores Ltd.
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
For the year ended December 31, 20XX

	OPERATING SECTION		
24.	Revenue	$	43,800,000
25.	Cost of sales		(28,250,000)
26.	Gross Profit		15,550,000
27.	Other income		130,000
28.	Distribution costs		(7,984,800)
29.	Administration expenses		(4,657,800)
30.	Other expenses		(665,400)
31.	Finance costs		(289,000)
32.	Share of profit of associates		5,000
33.	Income tax expense		(880,000)
34.	Profit		1,208,000
	Other comprehensive income		0
35.	Total comprehensive income	$	1,208,000

Trans-Canada Retail Stores Ltd.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended December 31, 20XX

	Share Capital	Retained Earnings	Total	Non-controlling interests	Total Equity
Balance at January 1, 20XX	1,564,000	10,026,500	11,590,500	145,000	11,735,500
Changes in equity for 20XX					
Issue of share capital	750,000		750,000		750,000
Dividends		(387,500)	(387,500)		(387,500)
Total comprehensive income		1,196,000	1,196,000	12,000	1,208,000
Balance at December 31, 20XX	2,314,000	10,835,000	13,149,000	157,000	13,306,000

Trans-Canada Retail Stores Ltd.

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended December 31, 20XX

OPERATING ACTIVITIES			
34.	Profit	$	1,208,000
	Add or (subtract) items not involving cash		
36.	Depreciation		496,000
32.	Share of profit of associates		(5,000)

37.	Change in net working capital		(401,000)
NET CASH FLOW PROVIDED BY OPERATING ACTIVITIES		$	1,298,000

Trans-Canada Retail Stores Ltd.
CONSOLIDATED STATEMENT OF CASH FLOWS
For the year ended December 31, 20XX

FINANCING ACTIVITIES			
38.	Proceeds from issue of share capital	$	750,000
39.	Repayment of long-term debt		(400,000)
40.	Proceeds from new long-term debt		50,000
41.	Dividends paid		(387,500)
NET CASH PROVIDED BY FINANCING ACTIVITIES		$	12,500
INVESTING ACTIVITIES			
42.	Acquisitions of capital assets	$	(900,000)
43.	Proceeds from disposal of capital assets		75,000
44.	Dividends received from associates		2,000
NET CASH FLOW USED IN INVESTING ACTIVITIES		$	(823,000)
45.	INCREASE IN CASH AND CASH EQUIVALENTS		487,500
46.	CASH AND CASH EQUIVALENTS—YEAR END		2,169,000

AUDITORS' REPORT

To the Shareholders of Trans-Canada Retail Stores Ltd.

We have audited the statement of financial position of Trans-Canada Retail Stores Ltd. as at December 31, 20XX and the statement of comprehensive income, statement of changes in equity, and statement of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards.

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with International Standards of Auditing. Those standards require that we comply with ethical requirements, and plan and perform an audit to obtain reasonable assurance on whether the consolidated financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risk of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes assessing the appropriateness of accounting principles used and the reasonableness of accounting estimates made by management, as well as evaluating the overall financial statement presentation.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

In our opinion, these financial statements give a true and fair view of the financial position of the company as at December 31, 20XX, and of their financial performance and cash flows for the year then ended, in accordance with International Financial Reporting Standards.

Toronto, Ontario

February 8, 20XX

[Signature of Auditors]

SECTION 6

PORTFOLIO ANALYSIS

Introduction to the Portfolio Approach 15

CHAPTER OVERVIEW

In this chapter, we introduce you to the different techniques used to analyze and measure risk and return in a portfolio. You will also learn the formulas used to calculate and interpret expected return and identify strategies for maximizing return while reducing risk. Finally, we will discuss the different management styles used in equity and fixed-income portfolios.

LEARNING OBJECTIVES	CONTENT AREAS
1 | Calculate rates of return of a single security.	**Risk and Return**
2 | Differentiate among the types and measures of risk, and the role of risk in asset selection.	
3 | Calculate and interpret the expected return of a portfolio of securities.	**Relationship Between Risk and Return in a Portfolio**
4 | Summarize the benefits and	

	challenges of combining securities in a portfolio.	
5 |	Compare and contrast the portfolio management styles of equity and fixed-income managers.	**The Portfolio Manager Styles**

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

active investment strategy

alpha

beta

bottom-up analysis

business risk

buy and hold

capital gain

capital loss

cash flow

correlation

default risk

diversification

ex-ante

ex-post

foreign exchange rate risk

holding period return

indexing

inflation rate risk

interest rate risk

liquidity risk

non-systematic risk

passive investment strategy

political risk

rate of return

real rate of return

risk-free rate of return

sector rotation

specific risk

standard deviation

systematic risk

top-down analysis

volatility

yield

INTRODUCTION

No perfect security exists that meets all the needs of every investor. If it did exist, there would be no need for investment and portfolio management, and no need to measure the return and risk of investments. In fact, advisors and portfolio managers spend a great deal of time selecting securities, allocating funds among security classes, and managing risks and returns.

The portfolio approach to making investment decisions consists of creating a diversified portfolio that allows investors to reduce overall risk without necessarily decreasing the expected return. In taking a portfolio approach to investing, you can theoretically eliminate some types of risks altogether through **diversification**.

Recognizing that there are no perfect securities, investors and advisors use measures and methods to estimate risk and predict return. Based on these results, they construct portfolios designed to fit the particular needs and circumstances of individual investors. Building portfolios that correlate to specific investor needs is key to being successful in the investment industry. Generating the highest returns is not enough; higher returns that require exposure to risky investments may not be appropriate for a particular investor.

In this chapter, we integrate information about individual securities, the markets, and the different analysis techniques. We focus on the relationship between risk and return and the various measures used to assess these factors. We also discuss the reasons why a portfolio

manager might choose an active or passive approach to managing an equity or fixed-income portfolio. All this information provides a foundation of knowledge on which to build your skills in using a portfolio approach to investing.

RISK AND RETURN

1 | Calculate rates of return of a single security.

2 | Differentiate among the types and measures of risk, and the role of risk in asset selection.

Given a choice between two investments with the same amount of risk, a rational investor would always take the security with the higher expected return. Likewise, given two investments with the same expected return, the investor would always choose the security with the lower risk. In reality, the choice is rarely so simple. Risk and return are interrelated in such a way that, to earn higher returns, investors must accept higher risk; and to avoid risk, they must accept lower returns. The choice investors make depends on their risk profile. Some investors will always choose lower-risk securities; others are willing to take on more risk if they believe there is a potential for higher returns.

Investors also have different views of what constitutes risk. To some, it means the risk of losing money on an investment. To others, it means the risk of losing purchasing power if the return on the investments does not keep up with inflation.

Given that all investors do not have the same degree of risk tolerance, different securities and different funds were developed to serve various market niches. For example, guaranteed investment certificates (GIC) suit investors seeking safety, fixed-income securities suit those seeking income, and equities suit those seeking growth or capital appreciation.

No matter what their risk profile, few people invest all of their funds in a single security. With a portfolio of securities, they are able to diversify their investments and reduce risk to a suitable level. For example, the same portfolio might contain the following investments:

- Government of Canada bonds, from which the investor expects to earn interest income
- Common shares, which the investor expects to grow in value while providing dividend payments

DID YOU KNOW?

The return on an investment is rarely guaranteed, which is why it is often called the *expected return*.

Investments are typically purchased in anticipation that they will grow in value; in reality, however, values can also decline. Selling a security for more than its purchase price is called a **capital gain**, whereas selling a security for less than its purchase price is a **capital loss**. For an investor, any income derived from an investment, in the form of interest payments or dividend, is called **cash flow**.

Returns on an investment are some combination of cash flows and capital gains or losses.

Figure 15.1 shows the formula used to calculate the expected return of a single security.

Figure 15.1 | Expected Return of a Single Security

$$\text{Expected Return} = \frac{\text{Expected Cash Flow} + \text{Expected Capital Gain } (or\ -\ \text{Capital Loss})}{\text{Beginning Value}}$$

Where:

Expected Cash Flow = Expected dividends, interest, or any other type of income

Expected Capital Gain/Loss = Expected Ending Value – Beginning Value

Beginning Value = The initial dollar amount invested by the investor

Expected Ending Value = The expected dollar amount the investment is sold for

---

RATE OF RETURN

Returns from an investment can be stated in absolute dollars; however, absolute numbers obscure the significance of a gain or loss. For example, an investor may state that she earned $100 on a particular investment, but without knowing the amount of the original investment, the number is meaningless. A $100 gain made on an investment of $1,000 is significant, whereas the same gain on an investment of $100,000 might signal a poor investment choice.

The more common practice is to express returns as a percentage, called the **rate of return** or **yield**. To convert a dollar amount to a percentage, the usual practice is to divide the total dollar returns by the amount invested, as follows:

$$\text{Return \%} = \frac{\text{Cash Flow} + (\text{Ending Value} - \text{Beginning Value})}{\text{Beginning Value}} \times 100$$

EXAMPLE

Consider the following three scenarios:

1. You purchase a stock for $10 and sell it one year later for $12. The rate of return is 20%, calculated as follows:

$$\frac{0 + (12 - 10)}{10} \times 100 = 20\%$$

2. You purchase a stock for $20 and sell it one year later for $22, and during this period you receive $1 in dividends. The rate of return is 15%, calculated as follows:

$$\frac{1 + (22 - 20)}{20} \times 100 = 15\%$$

3. You purchase a stock for $10 and receive $2 in dividends, but one year later you sell it for only $9. Your rate of return is 10%, calculated as follows:

$$\frac{2 + (9 - 10)}{10} \times 100 = 10\%$$

The examples show that cash flow and capital gains or losses are used in calculating a rate of return. You should also note that all trading periods in the examples are set for one year; hence, the percentage of return is also called the *annual rate of return*. If the transaction period were longer or shorter than a year, the return would be called the **holding period return**. The generic formula used to calculate return forms the basis of yield calculations throughout this chapter.

DID YOU KNOW?

Rates of return can be **ex-ante** (expected returns) or **ex-post** (actual historical returns). Investors estimate ex-ante returns to determine where funds should be invested. They calculate ex-post returns to compare actual results against both anticipated results and market benchmarks.

Choosing a realistic expected rate of return can be difficult. One common method is to expect the Treasury bill (T-bill) rate plus a certain performance percentage related to the risk assumed in the investment. Thus, corporate bond issues with a higher risk profile are expected to earn a higher rate of return than the more secure Government of Canada bond issues.

HISTORICAL RETURNS

You can gain important insights into the market and determine appropriate investments and investment strategies by studying historical data. However, past performance is not necessarily indicative of future performance, although historical returns do provide insight into the long-term performance of the market. In other words, we can create an estimate of the future return based on past performance, but we cannot predict it accurately. For this reason, investors use diversification to reduce risk (i.e., they invest in a wide range of securities, rather than putting all their resources in a single security or type of security).

As shown in Table 15.1, the highest rates of return are typically achieved by securities that have the greatest *variability* risk.

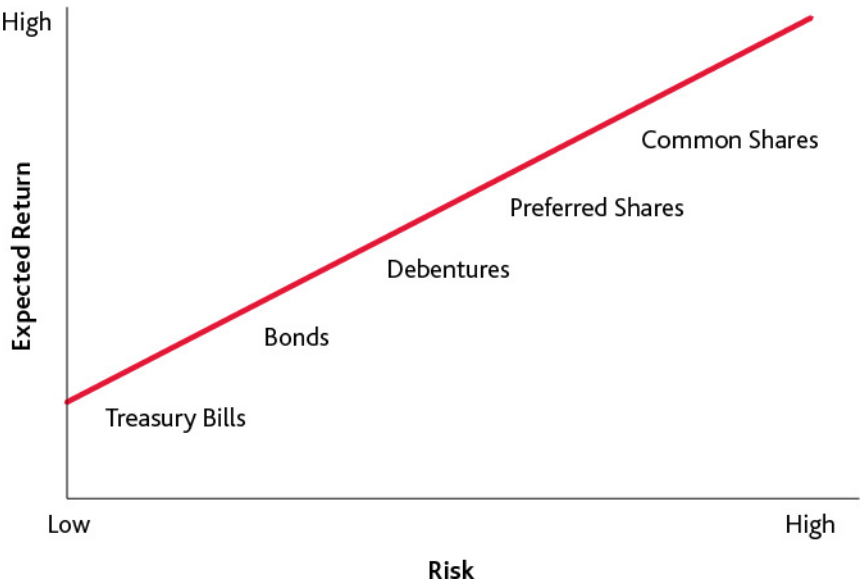
Table 15.1 | Comparative Total Rates of Return on Specific Security Classes

Annual Total Return (Percentage of Change in Value Indices, December to December)			
Annual Returns	**T-Bills 91-Day (%)**	**Long-Term Bonds (%)**	**S&P/TSX Composite Stocks (%)**
1990	13.48	4.32	–14.80
1995	7.57	26.34	14.53
2000	5.49	12.97	7.41
2005	3.37	13.84	21.91
2010	0.98	3.54	17.22
2015	0.50	3.80	–11.10

Source: Bloomberg

Figure 15.2 further illustrates the connected relationship between risk and return.

Figure 15.2 | Risk and Return Relationship



NOMINAL AND REAL RATES OF RETURN

So far, we have looked only at a simple rate of return, otherwise known as the *nominal rate of return*. For example, if a one-year GIC reports a 6% return, this 6% represents the nominal return on the investment. However, investors are more concerned with the **real rate of return**, which is the return adjusted for the effects of inflation.

The formula used to calculate the real rate of return is as follows:

Real Return = Nominal Rate – Annual Inflation Rate

EXAMPLE

A client earned a 10% nominal return on an investment last year. Over the same period, inflation was measured at 2%. The client therefore earned an approximate real rate of return of 8% on the investment, calculated as follows:

10% – 2% = 8%

THE RISK-FREE RATE OF RETURN

T-bills often represent the **risk-free rate of return**, given that there is essentially zero risk associated with this type of investment. The yield paid on a T-bill is roughly determined by estimating the short-term inflation rate and adding a real return.

Because T-bills are considered essentially risk-free, other securities must pay at least the T-bill rate plus a risk premium to compensate investors for the added risk.

In a statistical sense, risk is defined as the likelihood that the actual return will be different from the expected return. As the uncertainty of the outcome increases, so does the degree of risk.

EXAMPLE

An investor purchases a $500, 2% GIC and cashes it one year later. He receives exactly $500 plus 2% accrued interest. The same investor purchases $500 worth of common stock at $25 per share in the expectation that the price will rise from $25 per share to $30 in one year. He may receive much more than $30 per share or much less than the original $25 per share. Common stocks are riskier than GICs because the outcomes are much less certain.

TYPES OF RISKS

Investing in the markets entails the following types of risks, each of which can add to the uncertainty of expected returns for a particular security:

Inflation rate risk	**Inflation rate risk** is the risk that inflation will reduce future purchasing power and the real return on

	investments.
Business risk	**Business risk** is the risk that a company's earnings will be reduced as a result of a labour strike, the introduction of a new product into the market, or the outperformance of a competing firm, among other factors. The uncertainty regarding a company's future performance is its basic business risk.
Political risk	**Political risk** is the risk of unfavourable changes in government policies. For example, the government may decide to raise taxes on foreign direct investment, making it less attractive for foreign investors to invest in the country. Political risk also refers to the general instability associated with investing in a particular country. Investing in a war-torn country, for example, brings additional risk of investment loss.
Liquidity risk	A liquid asset is one that can be bought or sold at a fair price and converted to cash on short notice. **Liquidity risk** is the risk that an investor will not be able to buy or sell a security at a fair price quickly enough because buying or selling opportunities are limited.
Interest rate risk	**Interest rate risk** is the risk that changing interest rates will adversely affect an investment. For example, investors purchase fixed-income securities expecting to earn a certain return on the investment. However, because of the inverse relationship between interest rates and bond prices, if interest rates rise, the investment will fall in value.
Foreign	There are several risks associated with foreign

investment risk	investments. **Foreign exchange rate risk** is the risk of loss resulting from an unfavourable change in exchange rates. Investors who invest abroad or in businesses that buy and sell products in foreign markets are subject to this risk. Other foreign investment risks include: • A dramatic drop off of liquidity for international small-cap issuers • Larger bid-ask spreads for small cap international issuers • Varying legal rights of shareholders and bond investors • Poor shareholder communication in terms of reliability, quality, level of detail, and frequency of reporting
Default risk	When a company issues debt to finance its operations, servicing the debt through interest payments creates a further burden on the company. The more debt the company issues, the greater is the risk that it may have difficulty servicing its debt load through its current operations. **Default risk** is the risk that such a company will be unable to make timely interest payments or repay the principal amount of a loan when it comes due.

SYSTEMATIC AND NON-SYSTEMATIC RISK

The risk of a portfolio is determined by the risk of the various securities within it. Certain risks can be reduced by diversifying among a number of securities. However, other risks are always present that cannot be reduced or eliminated through diversification. These risks stem from such things as inflation, the business cycle,

and high interest rates. Altogether, this type of risk is called **systematic risk**, or market risk.

Systematic risk is the risk associated with investing in each capital market. When stock market averages fall, most individual stocks in the market also fall. When interest rates rise, nearly all individual bonds and preferred shares fall in value. Systematic risk cannot be diversified away.

DID YOU KNOW?

The more a portfolio becomes diversified within a certain asset class, the more it ends up mirroring the market for that asset.

Non-systematic risk, or **specific risk**, is the risk that the price of a specific security or a specific group of securities will change in price to a different degree or in a different direction from the market as a whole. For example, the stock of a particular bank may rise in price when the S&P/TSX Composite Index falls, or financial companies as a group may fall more than the S&P/TSX Composite Index.

Specific risk can be reduced through diversification. This type of risk theoretically could be eliminated completely by buying a portfolio of shares that consisted of all S&P/TSX Composite Index stocks, by using index funds, or by buying exchange-traded funds based on the S&P/TSX Composite Index.

MEASURING RISK

Investors may expect a given return on an investment, but the actual results may be higher or lower. To get a better feel for the possible outcomes and their probability of occurrence, several measures of risk have been developed. The two most common of these are **standard deviation** and **beta** (also called *beta coefficient*).

Standard deviation is the measure of risk commonly applied to portfolios and to individual securities within that portfolio. The past performance (i.e., the historical returns of securities) is used to determine a range of possible future outcomes. The more volatile the price of a security has been in the past, the larger the range of possible future outcomes.

The standard deviation, expressed as a percentage, gives the investor an indication of the risk associated with an individual security or a portfolio. The greater the standard deviation, the greater the risk. When an investor purchases a T-bill, the return is predictable; it cannot change as long as the investor holds the T-bill until maturity. With securities such as equities, the possible outcomes are varied: the price could increase, stay the same, or decrease. The greater the number of possible outcomes, the greater the risk that the outcome will not be favourable. And the greater the distance estimated between the expected return and the possible returns, the greater the standard deviation.

Beta is another statistical measure that links the risk of individual securities or a portfolio of securities to the market as a whole. As we saw earlier, the risk that remains after diversifying is market risk. Beta is important because it measures the degree to which individual securities, or a portfolio of securities, tend to move up and down with the market. Once again, the higher the beta, the greater the risk.

RELATIONSHIP BETWEEN RISK AND RETURN IN A PORTFOLIO

3 | Calculate and interpret the expected return of a portfolio of securities.

4 | Summarize the benefits and challenges of combining securities in a portfolio.

As indicated earlier, few people invest all of their funds in a single security. The focus now shifts to the expected return of a portfolio and the effects of combining securities.

CALCULATING THE RATE OF RETURN IN A PORTFOLIO

The expected rate of return on a portfolio is calculated using a slightly different method than the one used for the rate of return of a single security. Because the portfolio contains a number of securities, you must first calculate the return generated by each security. The return on the whole portfolio is then calculated as the weighted average return on all the securities held in the portfolio. Figure 15.3 shows the formula for the second calculation.

Figure 15.3 | Portfolio Expected Returns

$$\text{Expected Return} = R_1(W_1) + R_2(W_2) + \cdots + R_n(W_n)$$

Where:

- R = The expected return on a particular security
- W = The proportion (weight or %) of the portfolio held in the security based on the dollar value of the security
- n = The number of securities in the portfolio

EXAMPLE

A client invests $100 in two securities: $60 in ABC Co. and $40 in DEF Co.

The expected return from ABC Co. is 15%, and the expected return from DEF Co. is 12%. To calculate the expected return of the portfolio, you should look at the rate expected to be generated by each investment proportionally.

Because the total amount invested is $100, ABC Co. represents 60% of the portfolio ($60 ÷ $100) and DEF Co. represents 40% ($40 ÷ $100). If ABC Co. earns a return of 15% and DEF Co. earns 12%, the expected return on the portfolio is calculated as follows:

$$\text{Expected Return} = (0.15 \times 0.60) + (0.12 \times 0.40) = 0.09 + 0.048 = 0.138 = 13.8\%$$

MEASURING RISK IN A PORTFOLIO

Diversification is an important risk management tool; however, as a portfolio manager, you must guard against too much diversification. When a portfolio contains too many securities, it may be difficult to achieve superior performance. The accounting, research, and valuation functions may also be needlessly complex.

Portfolio managers have developed a number of strategies for limiting losses on individual securities or on a portfolio. Most of these strategies involve the use of derivatives. For example, they may use put options on individual equities or on investments such as gold, silver, and currencies. Additionally, they can hedge an entire portfolio by using derivatives on stock indexes, bonds, or interest rates.

COMBINING SECURITIES IN A PORTFOLIO

This section brings together the concepts of risk and return. Portfolio management stresses the selection of securities for inclusion in the portfolio based on the securities' contribution to the portfolio as a whole. This approach suggests that some interaction among securities can result in the total portfolio achieving more than the sum of its parts.

If investors place all of their savings in a single security, their entire portfolio is at risk. If the investment consists of a single equity security, the investment is subject to business risk and market risk. Alternatively, if all of the investor's funds are invested in a single debt

security, the investment is subject to default risk and interest rate risk.

You can eliminate or reduce some of these risks through diversification. However, you must do so carefully, with a good understanding of the methodology for combining securities. A portfolio holding multiple securities whose risk characteristics are very similar is not properly diversified.

Furthermore, although total risk does fall significantly when the first few stocks are added, the rate of reduction declines as the number of stocks increases. A point is finally reached where risk can no longer be reduced through diversification.

CORRELATION

Correlation is the statistical measure of how the returns on two securities move together over time and, therefore, how a change to the value of one security can predict the change in value of another. From a portfolio perspective, we are interested in the way securities relate to each other when they are added to a portfolio, and to how the resulting combination affects the portfolio's total risk and return.

For example, a portfolio consisting only of the stock of several companies in the same industry has a high correlation with the fortunes of that industry. If the stock prices of those companies always move in the same direction and in the same proportion, they would have a perfect positive correlation. Perfect positive correlation is denoted as a correlation of +1. Adding securities with perfect positive correlation to a portfolio does not reduce the overall risk of the portfolio.

EXAMPLE

Your client has invested 100% of her savings in a gold mining stock. She knows she will make money if the price of gold rises, and if the price declines, she will lose money. To reduce this risk,

she wants to diversify into another stock, which happens to be another gold mining company.

You explain to your client that her portfolio would not be properly diversified because the value of both securities is tied to the fortunes of gold. If one security declines in value, the other almost certainly will as well.

But what if the stock prices of two companies always move in opposite directions and in the same proportion? Such securities have a perfect negative correlation, denoted as –1. When the stock of one company rises as the other falls, the investor holding both stocks can earn a positive return with little risk (other than market risk).

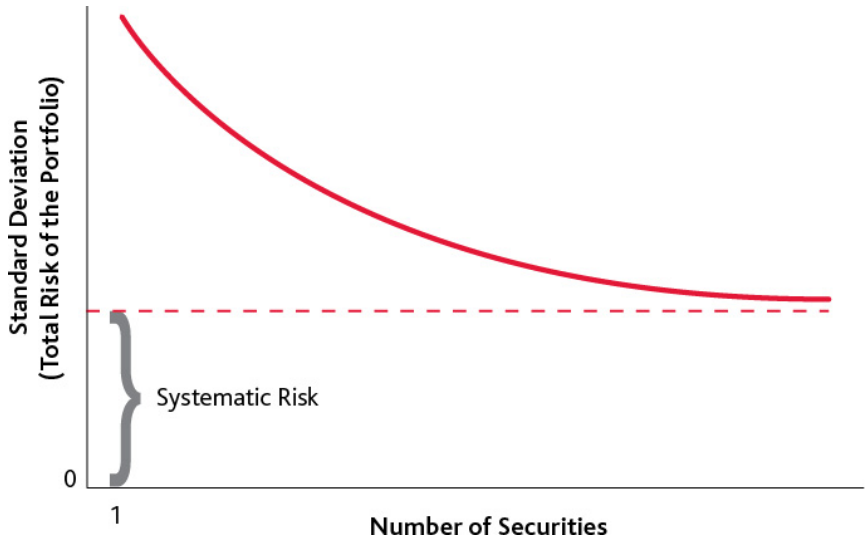
EXAMPLE

Your client has a portfolio of two securities: an airline company stock and a bus company stock. In good economic times people fly, and in hard times they save money by taking the bus. Therefore, when the economy is strong, the investor's airline company shares increase in value. When the economy declines, the airline stock declines accordingly, but the loss is offset by an increase in the price of bus company shares.

With perfect negative correlation between two assets, there is no variability in the total returns of the assets, and thus no risk for the portfolio. The maximum gain from diversification is therefore achieved when securities held within the portfolio exhibit perfect negative correlation. In reality, however, it is very difficult to find securities with perfect negative correlation. Because the securities in an equity portfolio are always positively correlated to some degree, the portfolio is left with systematic risk, which cannot be eliminated. The impact of systematic risk on return is the main source of uncertainty for an investor with a well-diversified portfolio.

Figure 15.4 shows how risk is reduced by adding securities to an equity portfolio.

Figure 15.4 | Risk in an Equity Portfolio



PORTFOLIO BETA

As discussed earlier, the beta relates the **volatility** of a single equity or equity portfolio to the volatility of the stock market as a whole. Specifically, beta measures that part of the fluctuation in returns driven by changes in the stock market. Volatility in this context is a way of describing the changes in return over a long time frame. The wider the range in market returns, the greater the volatility and the greater the risk.

Any equity or equity portfolio that moves up or down to the same degree as the stock market has a beta of 1.0. Any security or portfolio that moves up or down more than the market has a beta greater than 1.0, and a security that moves less than the market has a beta of less than 1.0.

EXAMPLE

- If the S&P/TSX Composite Index rose 10%, an equity fund with a beta of 1.0 would be expected to rise by 10%.
- If the S&P/TSX Composite Index fell by 5%, the equity fund would be expected to fall by 5%.
- An equity portfolio with a beta of 1.30, would be expected to rise 13% (calculated as 1.3 × 10%) when the S&P/TSX Composite Index rose 10%.
- An equity portfolio with a beta of 0.80 would be expected to rise only 8% when the S&P/TSX Composite Index rose 10%.

Most portfolio betas indicate a positive correlation between equities and the stock market.

Industries with volatile earnings (typically cyclical industries) tend to have higher betas than the market, whereas defensive industries tend to have lower betas. This difference implies that, when the market is falling in price, defensive stocks normally fall relatively less and cyclical stocks relatively more.

Simplistically, we could say that it is better to have high beta stocks in a rising market and low beta stocks in a falling market. However, this statement is an over-generalization and presumes that history repeats itself.

PORTFOLIO ALPHA

Equity portfolios often outperform the market and move more than would be expected from their beta. The additional movement is credited to the skill of the advisor or fund manager in picking securities that outperform. This excess return earned on the portfolio is called the **alpha**.

RISK AND RETURN

How does the mix of securities in a portfolio affect both the

risk and return of the portfolio? *Complete the online learning activity to assess your knowledge*.

THE PORTFOLIO MANAGER STYLES

5 | Compare and contrast the portfolio management styles of equity and fixed-income managers.

Portfolio managers, and investors to some extent, tend to use a combination of two investment strategies: active or passive.

ACTIVE INVESTMENT MANAGEMENT

The goal of an **active investment strategy** is to outperform a benchmark portfolio on a risk-adjusted basis. You can judge the success of active strategies by comparing the performance of a portfolio or an asset class within the portfolio to that of an appropriate benchmark or index.

EXAMPLE

The performance of an equity strategy that focuses on small-capitalization stocks should be gauged against a small-cap equity index.

Active equity investment strategies use one of two approaches, **bottom-up analysis** or **top-down analysis**, depending on how stocks are selected for purchase or sale.

- Bottom-up analysis begins with a focus on individual stocks. The portfolio manager looks at the characteristics of various stocks and builds portfolios of the best stocks in terms of forecasted risk-return characteristics.

- Top-down analysis begins with a study of broad macroeconomic factors before narrowing the analysis to individual stocks. The classic approach is to analyze macroeconomic and capital market factors, and then look at industry-specific factors to evaluate a particular company's operating environment. Finally, the manager uses company-specific factors to assess the value of the company's common stock.

The two approaches are not mutually exclusive. A compelling recommendation about a particular stock or managed product should always include both external (macroeconomic and industry) and internal factors that are likely to affect the price of the security.

PASSIVE MANAGEMENT

Managers using a **passive investment strategy** tend to replicate the performance of a specific market index without trying to beat it. Passive investment strategies also use two approaches: **indexing** and **buy and hold**.

- A buy-and-hold strategy is consistent with the view that securities markets are efficient, meaning that the price of a security at all times reflects all relevant information on expected return and risk. The passive portfolio manager does not believe it is possible to identify stocks as underpriced or overpriced, at least to an extent that would achieve enough extra return to cover the added transactions costs.
- Indexing involves buying and holding a portfolio of securities that matches the composition of a benchmark index. This method does not require much trading or managerial expertise unless the underlying stocks in the index change. At that point, the manager must trade, to keep the index fund matching the index.

EQUITY MANAGER STYLES

Equity portfolio managers use one of three approaches to investment management: growth, value, or **sector rotation**.

GROWTH MANAGERS

Growth managers focus on current and future earnings of individual companies, specifically earnings per share (EPS). Growth managers look for earnings momentum and will pay more for a company if they feel its growth potential warrants the higher price. Stocks in this type of portfolio usually have a lower dividend yield, or provide no dividend at all, and managers may turn over the securities in the portfolio more often.

Growth portfolios have the following risks:

- If EPS falters, it can cause large percentage price declines.
- Reported EPS, above or below analysts' expectations, produces high portfolio volatility.
- These types of securities are highly vulnerable to market cycles.

In terms of valuation ratios, growth portfolios have the following characteristics:

- High price-to-earnings
- High price-to-book value
- High price-to-cash flow

Long-term total return is gathered mostly through capital appreciation. Growth managers are usually not concerned with quarterly portfolio fluctuations. Clients must focus on long-term investment horizons and be prepared to tolerate risk in down markets.

Growth investing is a matter of expectations. The growth manager's challenge is to avoid paying too much for over-priced stocks. However, stocks that may seem high today will represent a good investment a year or two from now, if the company continues to grow as expected.

This growth style works best in rising markets. Stocks with above-average prices are more vulnerable in bear markets. Growth portfolios are appropriate for investors who are aggressive or who favour momentum investing, and who enjoy making spectacular gains in rising markets.

The growth style holds greater potential for capital appreciation because of faster earnings growth. Growth stocks tend to reinvest more of their earnings. However, this style has greater volatility, and hence risk, because more of the total return of the portfolio is derived from capital appreciation than from more stable dividend income. Also, growth stocks may fall more rapidly than other stocks in a declining market.

Because portfolio turnover tends to be higher, investors in taxable accounts may be liable for increased amounts of capital gains tax every year.

VALUE MANAGERS

For value investing managers, the focus is on stocks that are perceived to be trading for less than their true or intrinsic value. These managers are bottom-up stock pickers with a research-intensive approach. Security turnover is typically low because these managers usually wait for a stock's intrinsic value to be realized.

By screening stocks for cheap fundamentals, and by investigating a company's management, products and services, and competitive position, managers can buy discounted stocks that should eventually rise in price. Value managers seek stocks that are overlooked, disliked, or out of favour with individual investors, institutional investors, and equity analysts. However, these reasons also imply that it may take some time for the discounted stock to realize its intrinsic value, if ever.

A value portfolio has the following risk characteristics:

- Lower annualized standard deviation

- Lower historical beta
- Stock price is already low and could remain low for a long time

In terms of valuation, it has the following characteristics:

- Low price-to-earnings ratio
- Low price-to-book value ratio
- Low price-to-cash flow ratio
- High dividend yield

Over the long term, value investing has produced total returns virtually identical to those of growth investing but with higher current dividend yield and less portfolio volatility. This style tends to perform best in down markets, with some participation in up markets.

Because of the lower volatility associated with this style of management, value managers can be used as core managers for clients with low-to-medium tolerance for market risk and long-term investment horizons. This style of investing requires patience as the value of the underpriced bargains are slowly realized by the market. Because turnover in portfolios with a value bias tends to be low, investors incur fewer capital gains. Value investing largely ignores short-term market fluctuations.

A value manager's picks may not be immediately recognized as undervalued by the market. Value investing is more successful in inefficient markets, when stock prices may be out of line with corporate fundamentals. It also tends to work in a stagnant or declining market, when there is greater emphasis on preserving capital or minimizing short-term losses.

One drawback to the value style of investing is that, in efficient stock markets, the price of individual securities tends to reflect all that is known about the stocks. An individual stock may therefore be trading at a low price for good reason, which may not show up in its financial statements.

Because of the focus on good value, value managers may be drawn to companies that are in need of a turnaround to overcome financial or competitive difficulties.

SECTOR ROTATION

Sector rotation applies a top-down approach, focusing on analyzing the prospects for the overall economy. Based on that assessment, the managers invest in the industry sectors expected to outperform. These managers typically buy large-cap stocks to maximize their liquidity. They are not as concerned with individual stock characteristics. Their primary focus is to identify the current phase of the economic cycle, the direction the economy is headed in, and the various sectors affected.

In other words, managers applying this strategy try to identify emerging trends in the belief that industry selection is more important than stock selection.

Risk features include high volatility caused by industry concentration and rotation between industries. The consequences are worse if the manager’s economic scenario is wrong and the favoured industries do not perform as expected.

Over short periods, managers and investors who use sector rotation may significantly underperform the market benchmark. The turnover for a portfolio using sector rotation also tends to be high, which pushes up trading costs and the expenses charged to the fund. The higher turnover may create problems for taxable accounts; capital gains tax may be payable because of frequent trades. Also, because this style emphasizes the industry sector, the merits of individual companies get less scrutiny and good individual stocks may be overlooked.

The emphasis on large, liquid companies that lead their particular sector also means that the actual stocks picked may not necessarily represent the performance of the entire sector. Stock-specific

circumstances may cause an individual holding to behave very differently from its industry peers.

Sector rotation is concerned with trying to outperform the market averages such as the S&P/TSX Composite Index.

EXAMPLE

During the last stages of recession, bank stocks may rally first, to be followed by consumer growth stocks, consumer cyclical stocks, and thereafter those stocks that tend to benefit even later in an economic cycle, such as those for capital goods and commodity-based industries.

Theoretically, successful shifts between these groups can produce greater returns than just buying and holding a diversified portfolio of stocks.

The most basic industry rotation strategy involves shifting back and forth between cyclical industries and defensive industries. During periods in which stock prices are falling, cyclical stocks tend to fall relatively faster. Defensive stocks, such as banks or utilities, fall at a relatively slower pace, helping the investor to preserve capital. Conversely, during periods of economic expansion, the profit growth of cyclical industries, such as paper and forestry or integrated mines, is more robust; therefore, their stock tends to rise relatively faster.

Industry rotation strategies become more complex once additional industry types are considered and variations in economic cycles are taken into account.

EXAMPLE

Some industry groups are interest rate sensitive. They follow a pattern that conforms almost entirely to the interest rate cycle. However, growth industries may do consistently well in most economic environments because of sustained growth in corporate profits.

A minority of industries are counter-cyclical, or they may lag below the market averages. For example, gold stocks are occasionally inversely related to the S&P/TSX Composite Index. Gold stock prices sometimes rise during recessions, while stock market average price levels are falling.

Variations in the economic cycle can also have a dramatic bearing on the timing of sector rotation. Generally, two-thirds of an economic recovery is driven by an increase in consumer spending. As a consequence, businesses need to add to plant and capacity, which results in an increased demand for capital goods and provides a boost for the stocks of capital goods makers.

FIXED-INCOME MANAGER STYLES

Fixed-income managers invest in fixed-income products such as bonds, mortgage-backed securities, fixed-income mutual funds, exchange-traded funds, and preferred shares. The managers' choices may vary depending on the product's term-to-maturity period or credit quality, or on their expectations regarding interest rates.

TERM TO MATURITY

Short-term managers hold T-bills and short-term bonds with maturities less than five years. Portfolios holding these products are less volatile when interest rates rise because they have investments maturing that can be reinvested at the higher rates.

Medium-term managers focus on terms to maturity that range from five to 10 years. Mortgage funds are a good example. These funds generally invest in high-quality residential mortgages (usually NHA insured) with terms of five years.

Long-term managers hold bonds with maturities of greater than 10 years.

CREDIT QUALITY

The quality of investment-grade bonds ranges from a high Aaa to a low of Baa3 (refer to Table 6.5 Moody's Long-Term Rating Scale in Chapter 6). High-quality issuers are typically federal and provincial governments and some very well-capitalized corporations. Generally, the lower the quality of the bond, the higher the yield it must have. Managers must balance the return potential with the risk of default. Many bond portfolios have predetermined credit quality limits, under which they will not invest.

High-yield bonds are non-investment grade products, often called junk bonds. Bonds in this category should have a higher yield, but they face greater credit risk. To mitigate this risk, managers often invest in high-yield bonds that mature in less than three years.

Because of the higher credit risk, corporate issues have higher yields than comparable Government of Canada issues. Therefore, by selecting higher-quality corporate issues, a manager can improve a portfolio's yield without taking on much additional risk.

Another factor to consider with corporate issuers is liquidity. Lower-rated bonds have less liquidity than government issues. In a declining market, it may be difficult to find a buyer for this kind of debt.

INTEREST RATE ANTICIPATORS

Some managers feel they can add value by anticipating the direction of interest rates and structuring their portfolios accordingly. When they anticipate a decrease in the general level of interest rates, they extend the average term on their bond investments. Conversely, when they anticipate an increase in interest rates, they shorten the term.

Interest rate anticipation is sometimes also referred to as a form of duration switching. It works best when the yield curve is normal—that is, when there is a wide gap between short-term and long-term rates. If the yield curve is flat, it is not advantageous to extend the term to maturity of the portfolio.

DID YOU KNOW?

As discussed earlier, duration is an approximate measure of a bond's price sensitivity to changes in interest rates. Therefore, if you anticipate that interest rates are going to fall, you could sell lower duration bonds and replace them with higher duration bonds. You thus extend the average duration of the portfolio and increase the portfolio's price sensitivity. As interest rates fall, the increased price sensitivity should lead to greater capital gains.

PORTFOLIO MANAGER STYLES

Different fund managers will vary in the management styles they employ. It is important to know the style that a manager uses to better understand how the portfolio will behave in different market environments. *Complete the online learning activity to assess your knowledge of the different portfolio manager styles.*

CASE SCENARIO

Can you help Sal with his questions about risk? *Complete the online learning activity to assess your knowledge.*

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, we discussed the following key aspects of the portfolio approach to investment:

- Generally, to achieve higher returns, investors must be willing to accept a higher degree of risk. In statistics, risk is defined as the likelihood that the actual return will be different from the expected return.
- Systematic risk is non-diversifiable risk; it is always present and affects all assets within a certain class. Non-systematic risk is the risk that the price of a specific security or group of securities will change to a different degree or in a different direction from the market as a whole. Non-systematic risk can be reduced through diversification. Two common measures of risk are standard deviation and beta.
- Asset allocation involves determining the optimal division of an investor's portfolio among the different asset classes of cash, fixed income, and equities to maximize portfolio return and reduce overall risk. The return is calculated as the weighted average return on the securities held in the portfolio.
- Correlation refers to the way securities relate to each other when they are added to a portfolio and how the resulting combination affects the portfolio's total risk and return. Beta is a measure of a portfolio's volatility in comparison to that of the market. Higher beta means greater risk. Alpha measures the degree to which an equity portfolio performs better than would be expected from beta.
- Active managers attempt to outperform the market by actively seeking stocks that will do better than the market. Passive managers tend to replicate the performance of a specific market index without trying to beat it.
- Fixed-income managers make choices based on term to maturity, credit quality, and their expectations of changes in interest rates. Equity growth managers use the bottom-up style of growth investing by focusing on current and future earnings of

individual companies. Equity value managers focus on buying undervalued stock. Equity sector rotators apply a top-down investing approach. They analyze the overall economy and invest in promising industry sectors.

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 15 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 15 FAQs.

The Portfolio Management Process 16

CHAPTER OVERVIEW

In the previous chapter, you learned about the basic skills of investment management using a portfolio approach. In this chapter, you will learn to apply those skills within a seven-step portfolio management process.

LEARNING OBJECTIVES	CONTENT AREAS
	The Portfolio Management Process
1 | Describe the various investment objectives and constraints.	**Step 1: Determine Investment Objectives and Constraints**
2 | Describe the purpose and use of an investment policy statement.	**Step 2: Design an Investment Policy Statement**
3 | Explain how asset classes are used to construct an appropriate asset mix.	**Step 3: Develop the Asset Mix**
4 | Differentiate between security selection and asset allocation.	**Step 4: Select the Securities**
5 | Describe the process for monitoring the portfolio.	**Step 5: Monitor the Client, the Market, and the Economy**

6 |	Calculate and interpret the total return and risk adjusted rate of return of a portfolio.	**Step 6: Evaluate Portfolio Performance**
7 |	Define the purpose of rebalancing the portfolio.	**Step 7: Rebalance the Portfolio**

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

asset allocation

benchmark

dynamic asset allocation

investment policy statement

new account application form

risk-adjusted rate of return

Sharpe ratio

strategic asset allocation

tactical asset allocation

INTRODUCTION

Portfolio management is a continual process because financial markets and individual circumstances are ever changing. Portfolio managers must therefore be flexible to adapt to change. As we have seen before, there is no “one size fits all” solution to investing, and finding the right fit is critical to achieving financial objectives.

Portfolio management involves analyzing a great deal of personal and financial information about your clients to determine an asset mix that best suits them. A portfolio is never made up of one security; rather, it is a mix of a variety of securities that add up to something that is, or should be, more than the sum of its individual parts. The asset mix can be allocated between cash, fixed-income securities, and equities in any number of ways.

It is often quoted that the **asset allocation** decision has a significant impact on the overall return of a portfolio. Asset allocation means the proportion of a portfolio invested in each asset class. Consequently, it is crucial that you understand what is involved in the decision-making process. When working with clients as an advisor, you must be able to explain the asset choices you make. You must also be prepared to react to changing markets, investor objectives, and economic factors.

In this chapter, we discuss some of the key industry theories, practices, and measurements that are a standard procedure in the process of managing investment portfolios.

THE PORTFOLIO MANAGEMENT PROCESS

Although securities are sometimes selected on their own merits, portfolio management stresses the selection of securities based on their interaction with each other and their contribution to the portfolio as a whole. This process is known as the portfolio approach.

The return of the portfolio is the weighted average of the returns of each security, but the risk of a portfolio is almost always less than the risks of the individual securities within it. Interaction among the securities results in the total portfolio effect being more than the sum of its parts. This improved risk-reward trade-off is a benefit of the portfolio approach, compared to making uncoordinated decisions.

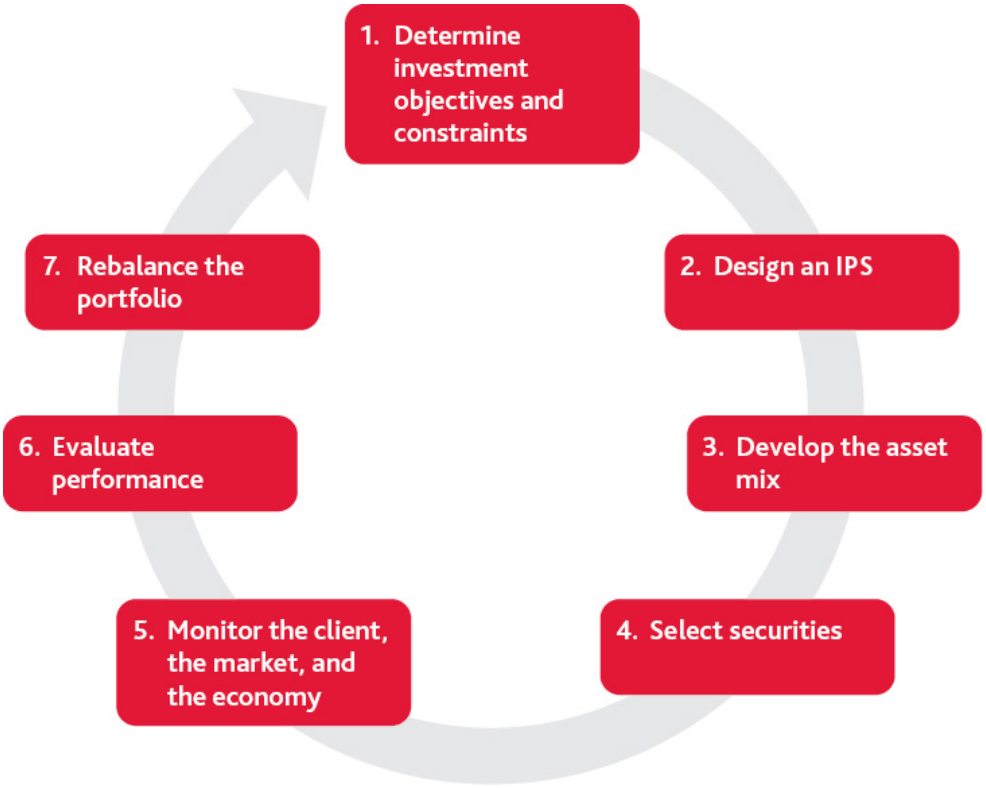
The portfolio management process consists of the following seven basic steps:

1. Determine investment objectives and constraints.
2. Design an investment policy statement.
3. Develop the asset mix.
4. Select the securities.

5. Monitor the client, the market, and the economy.
6. Evaluate portfolio performance.
7. Rebalance the portfolio.

The portfolio management process is a continuous cycle, as shown in Figure 16.1. Your clients' investment objectives and constraints will change throughout their lives. Therefore, you must re-evaluate them periodically.

Figure 16.1 | The Portfolio Management Process



STEP 1: DETERMINE INVESTMENT OBJECTIVES AND CONSTRAINTS

1 | Describe the various investment objectives and constraints.

To determine the appropriate asset allocation for a particular portfolio, you must first determine the client's investment objectives and constraints.

Clients usually do not communicate their primary investment goals in terms of risk and return. Goals might be stated, for example, as a desire to retire at a certain age; a plan to acquire a business, vacation property, or sailboat; or the pursuit of some other tangible goal. With the right approach, and with the client's full agreement and understanding, you can help translate such desires into realistic investment objectives that recognize the client's particular constraints.

Pointed interview questions about related objectives and constraints can reveal a great deal of information. You can also learn a lot from a concluding general question. For example, you might ask, "Is there anything we haven't talked about that might be relevant?" Such questions can reveal important things you may have missed, such as the following pertinent facts:

- A family member who is an insider, which presents a legal constraint
- A serious illness, which has income and time horizon implications
- A pending marital breakup, which can have a material impact on future plans

RETURN AND RISK OBJECTIVES

All information learned from the clients through interviews, questionnaires, and follow-up discussions should be distilled into a return objective and a risk objective. These objectives must address two questions:

- What rate of return does the client need to attain the stated goals?
- What risk is the client willing and able to take on to achieve those goals?

The return objective is a measure of how much a client's portfolio is expected to earn each year, on average. This objective depends primarily on the return required to meet the client's goals, but it must also be consistent with the client's risk tolerance. The client interview should help reveal the preferred result, whether it is maximum return or minimum loss. In the first case, your strategy should be to focus on earning the highest return possible while staying within the client's risk tolerance level. In the second case, you should focus on risk reduction. In addition, the investment policy should be designed to take into account the client's tax position and

needs with respect to the proportion of interest income, capital gains, and dividend income to be generated.

The risk objective is a specific statement of how much risk the client is willing to sustain to meet the return objective. The risk objective is based on the client's risk tolerance—the client's willingness and ability to bear risk. Assessment of risk tolerance is a vital element in the ultimate design of the portfolio because it governs the selection of securities.

Inflation is one consideration in determining a client's risk tolerance. Most retail clients need some degree of inflation protection, but the extent of the need varies. For example, consider a retired person with a long time horizon and income as the primary objective. The future purchasing power of the cash flow from this client's portfolio is an important concern; therefore, protection from inflation is essential.

DID YOU KNOW?

Because the risk of a portfolio is usually less than the average risk of its holdings, a client's risk tolerance should be matched to the risk of the overall portfolio, rather than the risk of each security.

Table 16.1 shows some alternatives available when constructing a portfolio.

Table 16.1 | Sample Risk Categories Within Each Asset Class

Cash and Cash Equivalents	
Government issues (less than a year)	Lowest risk, highest quality
Corporate issues (less than a year)	Highest risk, lowest quality
Fixed-Income Securities	
Short term (one to five years)	Low risk, low price volatility
Medium term (five to 10 years)	Medium risk, medium price volatility
Long term (over 10 years)	High risk, maximum price volatility

Equities	
1. **Conservative**	Low risk; high capitalization; predictable earnings; high yield; high dividend payouts; lower price-to-earnings ratio; low price volatility
2. **Growth**	Medium risk; average capitalization; potential for above average growth in earnings; aggressive management; lower dividend payout; higher price-to-earnings ratio; potentially higher price volatility
3. **Venture**	High risk; low capitalization; limited earnings record; no dividends; price-to-earnings ratio of little significance; short operating history; highly volatile
4. **Speculative**	Maximum risk; shorter term; maximum price volatility; no earnings; no dividends; price-to-earnings ratio not significant

As Table 16.1 shows, equities are grouped by level of risk. Risk assessment is a subjective process, but the four categories provide a basis for risk differentiation. The differences between the categories are largely a function of differences in capitalization, earnings performance, predictability of earnings, liquidity, and potential price volatility. Because these variables apply to all common shares in all industry groups, each industry may have companies whose securities could be ranked in any of the four groups. Also, because companies are not static, the risk in an individual security can change over time and may warrant a shift to a higher or lower ranking.

INVESTMENT OBJECTIVES

In general, an investor's objectives comprise the following three primary investment components:

- Safety of principal (also called preservation of capital)
- Income
- Growth of capital

Secondary investment objectives include liquidity (or marketability) and tax minimization.

As an advisor, you should explain each objective to your client and jointly determine the appropriate balance among all objectives. Allocation to each primary objective on a percentage basis is recommended. This approach adds clarity for both parties, especially when clients have trouble communicating their wishes. Clarity of objectives also translates well into the categories of the **New Account Application Form** (NAAF).

Below are descriptions of the three types of primary objectives, which were noted above.

Safety of principal	Many clients want some assurance that their initial capital invested will largely remain intact. If this is your client's main concern among the three primary objectives, you should help to prevent erosion of the amount initially invested, regardless of the return generated on the capital. However, if safety of principal is the main concern, the client must accept a lower rate of income return and give up much of the opportunity for capital growth. In Canada, a high degree of safety of principal and certainty of income is offered by most federal, provincial, and municipal bonds, if they are held to maturity. Shorter-term bonds also offer a high degree of safety because they are close to their maturity dates. A Government of Canada Treasury bill (T-bill) offers the highest degree of safety; it is virtually risk-free.
Income	Income from a portfolio is a regular series of cash flows received from debt and equity securities, whether as dividends, interest, or other form. In determining the income objective and the split between debt and equity securities, major considerations are taxation of dividends and interest income. This decision is made at the time the asset mix is set. To maximize the rate of income return, investors usually give up some safety if they purchase corporate bonds or preferred shares with lower investment ratings. In general, safety goes down as yield goes up.
Growth	Growth of capital, or capital gains, refers to the profit generated when securities are sold for more than they originally cost to buy. When capital gains are the primary investment objective, the emphasis is on security selection and market timing. Note that capital gains are taxed more favourably than interest

income; however, taxation details are more fully discussed in the Canadian Taxation chapter.

EXAMPLE

Applying the three primary objectives to different types of investors might include:

- Safety of principal:
  - A young couple invest their savings for the eventual purchase of a house.
  - A business executive temporarily invests funds that will be used to buy out a business partner six months later.
- Income:
  - A single parent earning a salary relies on additional income from investments to meet the cost of raising and educating a child.
  - A retired couple's pension income is insufficient to provide for all living expenses.
- Growth:
  - A well-paid young executive with excess income wishes to build a pool of capital for early retirement.
  - A vice-president of a corporation seeks above average returns through common share investments.

Table 16.2 shows, in broad terms, the four major kinds of securities and evaluates them in terms of the three primary investment objectives. *Note:* For our purposes, the evaluation in the table disregards the effects of inflation.

Table 16.2 | Securities and Their Investment Objectives

Type of Security	Primary Objectives		
	Safety	**Income**	**Growth**
Short-term bonds	Best	Very steady	Very limited

Long-term bonds	Next best	Very steady	Variable
Preferred shares	Good	Steady	Variable
Common shares	Often the least	Variable	Often the most

Generally, clients have secondary objectives in addition to the three primary objectives discussed above. Typical secondary objectives include liquidity and tax avoidance, which are detailed below.

Liquidity	Liquidity is not necessarily related to safety, income return, or capital gain. It simply means that, at nearly all times, there are buyers at some price level for the securities, usually at a small discount from fair value. Liquidity is important for investors who may need money on short notice. For others, it may not be vital. Most Canadian securities can be sold quickly in reasonable quantities at some price. Typically, they sell within one business day with settlement to follow within two business days. Some real estate–related securities are an exception.
Tax avoidance	When assessing the returns from any investment, you must consider the effect of taxation. The tax treatment of an investment varies depending on whether the returns are categorized as interest, dividends, or capital gains. Therefore, tax treatment of the returns influences the choice of investments.

INVESTMENT CONSTRAINTS

Investment constraints impose necessary discipline on clients in the fulfilment of their objectives. Constraints may loosely be defined as those items that may hinder or prevent you from satisfying your client’s objectives. Constraints are often not given the importance they deserve in the policy formation process.

Typical constraints include a variety of issues, including the factors described below.

Time horizon	A major factor in the design of a good portfolio is how well it reflects the time horizon of its goals. Fundamentally, the time horizon is the period spanning the present until the next major change in the client's circumstances. Clients go through various events in their lives, each of which can represent a time horizon and a need to completely re-evaluate their portfolio. Some major events, such as a serious health problem or loss of employment, cannot be predicted. Nevertheless, a client's time horizon should extend from the present until the next major expected change in circumstances. For example, a 25-year-old client who plans to retire at age 60 will not likely have a single time horizon of 35 years. Various events in that client's life will end one time horizon and begin a new one. Events might include finishing university, making a career change, planning for the birth of a child, or purchasing a home.
Liquidity requirements	In portfolio management, liquidity refers to the amount of cash and near-cash in the portfolio. The cash component could be higher during certain parts of the market cycle. For example, it could go up when securities are judged to be overpriced, or when the yield curve is inverted and the returns on cash are high.
Tax requirements	Your client's marginal tax rate dictates, in part, the proportion of income that the client should receive as interest income in relation to dividends. Dividends from Canadian corporations are eligible for a tax credit. The subject of the dividend tax credit is discussed in chapter 24. The marginal tax rate also guides the proportion that should be invested in preferred shares versus other fixed-income securities, such as bonds. High tax rates can significantly erode the final return on more traditional investments, such as guaranteed investment certificates (GIC).

Legal and regulatory requirements	Any investment activity that contravenes an act, law, by-law, regulation, or rule must be considered a constraint. For example, a client who is an insider or owner of a control position at a publicly traded company must comply with all applicable regulatory guidelines. All firms have compliance personnel and many have legal counsel on staff. You should consult these resources when you have any question about legal issues.
Unique circumstances	When creating the investment policy, you must consider the unique circumstances specific to your client. Unique circumstances may include such preferences as the desire for ethically and socially responsible investing. For example, some clients may instruct you to ensure that no alcohol or tobacco stocks are purchased to respect their personal convictions.

STEP 2: DESIGN AN INVESTMENT POLICY STATEMENT

2 | Describe the purpose and use of an investment policy statement.

An **investment policy statement** is an agreement between a portfolio manager and a client that provides the investment guidelines for the manager. The investment policy statement outlines how the assets within the portfolio are to be managed. Though there is no standardized list of components to include in an investment policy statement, some important considerations are listed below:

- Operating rules and guidelines
- Asset allocation
- Investment objectives and constraints
- A list of acceptable and prohibited investments
- The method used for performance appraisal agreed to by the advisor and the client

- Schedule for portfolio reviews

The statement can be a lengthy written and signed document, or it can be derived from the NAAF in accordance with the Know Your Client rule. Regardless of its level of formality, the investment policy is the result of many complex inputs.

PORTFOLIO MANAGEMENT PROCESS

Can you advise a client as she starts her investment journey? *Complete the online learning activity to assess your knowledge*.

STEP 3: DEVELOP THE ASSET MIX

3 | Explain how asset classes are used to construct an appropriate asset mix.

After designing the investment policy based on the client's investment objectives and constraints, the portfolio manager must select appropriate investments for the portfolio.

If it is your role to select the asset mix, it is critical that you understand the relationship between the equity cycle and the economic cycle. You must use this understanding to plan the weighting of each asset class. You must also consider the individual characteristics and risk tolerance of the client.

THE ASSET MIX

The main asset classes are cash, fixed-income securities, and equity securities. More sophisticated portfolios may also include alternative investments such as private equity capital funds, currency funds, or hedge funds.

CASH

Cash and cash equivalents includes currency, money market securities, redeemable GICs, bonds with a maturity of one year or less, and all other cash equivalents. Cash is needed to pay for expenses and to capitalize on

opportunities, but is primarily used as a source of liquid funds in case of emergencies.

In general terms, cash usually makes up at least 5% of a diversified portfolio's asset mix. Investors who are very risk averse may hold as much as 10% in cash. Cash levels may temporarily rise greatly above these amounts during certain market periods or during portfolio rebalancing. However, normal long-term strategic asset allocations for cash are within 5% and 10%.

FIXED-INCOME SECURITIES

Fixed-income securities consist of bonds due in more than one year, strip bonds, mortgage-backed securities, fixed-income exchange-traded funds, bond mutual funds, and other debt instruments, as well as preferred shares. Convertible securities may or may not be considered fixed-income products in the asset allocation process. The purpose of including fixed-income products is primarily to produce income, but also to provide some safety of principal. They are also sometimes purchased to generate capital gains.

From a portfolio management standpoint, preferred shares are simply another type of fixed-income security. They have a stated level of income, trade on a yield basis, are subject to the same protective provisions, and have a reasonably definable term. Legally, preferred shares are an equity security. However, they are listed in portfolios as part of the fixed-income component because of their price action and cash flow characteristics.

You can diversify this part of the asset mix in several ways, including the following methods:

- Both government and corporate bonds can be used in a range of credit qualities, from Aaa to lower grades.
- Foreign bonds may be added to domestic holdings.
- A variety of terms-to-maturity are often used (e.g., in a concept called *laddering*, the various consecutive durations mimic rungs on a ladder).
- Deep discount or strip bonds can be chosen alongside high-coupon bonds.

The amount of a portfolio allocated to fixed-income securities is governed by the following factors:

- The need for income over capital gains

- The basic minimum income required
- The desire for preservation of capital
- Other factors such as tax and time horizon

EQUITY SECURITIES

Equities include common shares, equity exchange-traded funds, equity mutual funds, and both convertible bonds and convertible preferred shares. Although a dividend stream may flow from the equity section of a portfolio, its main purpose is to generate capital gains, either through trading or long-term growth in value.

DID YOU KNOW?

If the conversion privilege expires on a convertible security, and the security is therefore no longer convertible, it should be re-categorized as fixed income.

OTHER ASSET CLASSES

Although portfolios of most retail clients consist of cash, fixed income, and equities, investors can diversify further by adding the following types of investments, which fall outside of the major asset classes:

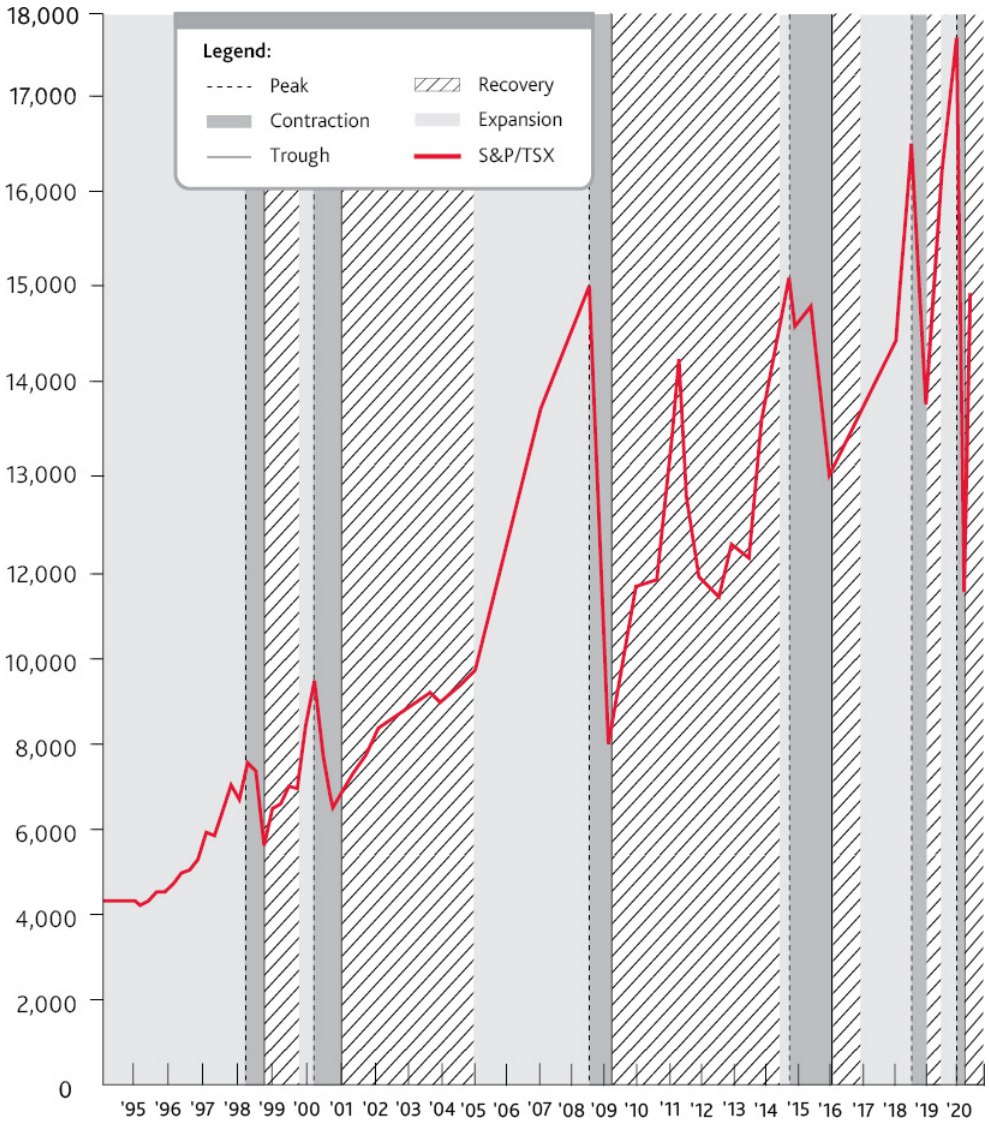
- Hedge funds
- Real estate
- Precious metals
- Collectibles, such as art or coins
- Commodities, such as gold (which is considered a good hedge against inflation)

SETTING THE ASSET MIX

The phases of the equity cycle trace movements in the stock market, which include expansion, peak, contraction, trough, and recovery. A study of the equity cycle is a useful approach for a general understanding of stock market movements.

Figure 16.2 shows the S&P/TSX Composite Index over the last few decades and illustrates (with shading) the different phases. It is important to note that within a stock market expansion phase, which may last several years, there are also serious setbacks or corrections to stock prices, which may last as long as a year.

Figure 16.2 | Broadly Defined Equity Cycles: S&P/TSX Composite Index Price, 1995—2020



Source: adapted from the TSX.

ASSET CLASS TIMING

The rationale behind asset class timing is that investors can improve returns by strategically switching from stocks to T-bills, to bonds, and back to stocks.

The benefits of successful timing are undeniable; however, investors do not always have the analytic tools available that tell them when to shift between asset classes. In reality, most investors are unable to determine whether a rise in interest rates is designed to slow economic growth or whether it is pointing to a coming contraction or recession.

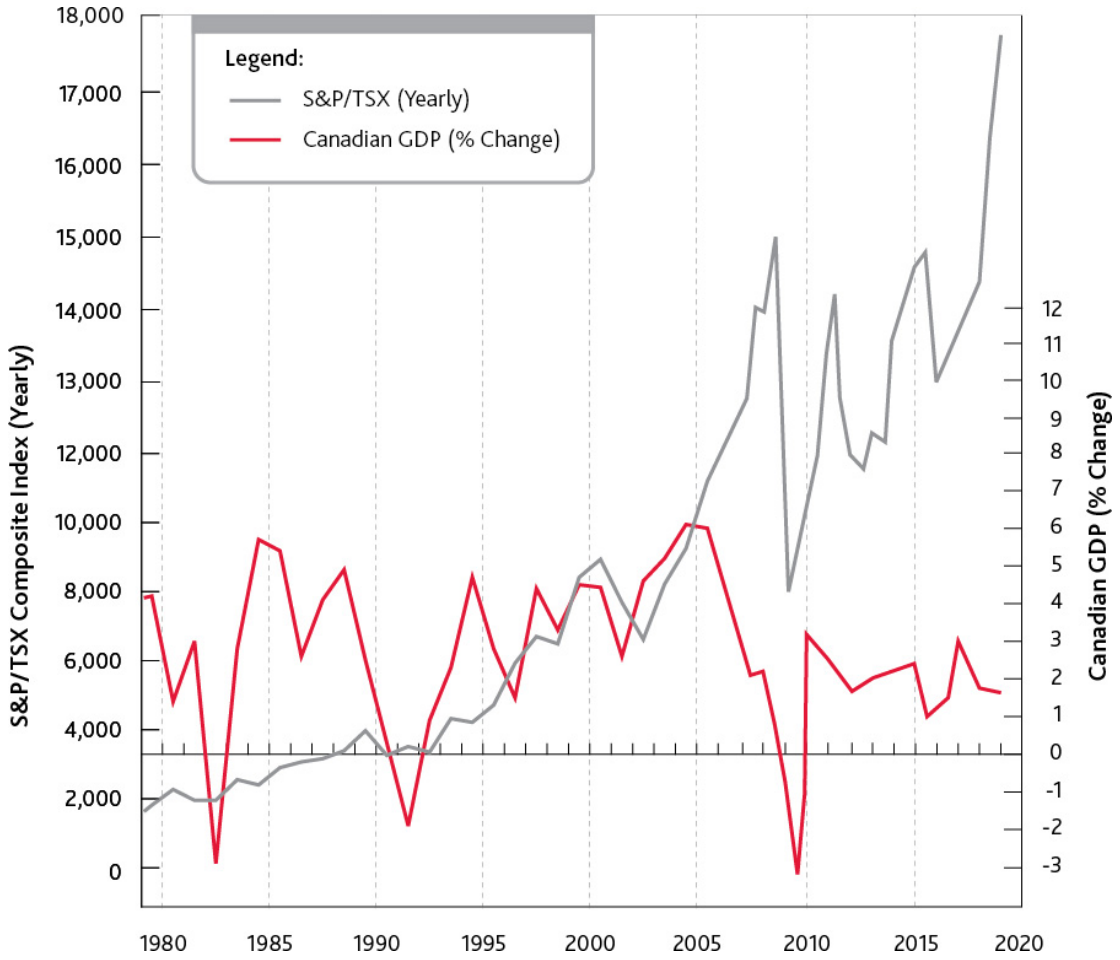
Another consideration in asset class timing is term-to-maturity. If, at the time in question, bonds are the best asset class, then it should make sense to lengthen the term of bond holdings to maximize returns. Similarly, if stocks are the best asset class, then certain strategies can be implemented to maximize stock market gains. It is generally accepted that asset allocation has an important impact on the variation in the total returns of investment portfolios.

THE LINK BETWEEN EQUITY AND ECONOMIC CYCLES

To understand stock market strategies, you must also understand the link between equity cycles and economic cycles. In general, the cycles are very similar, except that the equity cycle tends to lead.

Figure 16.3 shows that the sustained economic growth in nominal gross domestic product, beginning in 1982 and 1996, fits closely with the generally sustained rise in stock prices over that time. You should note that the beginning of the equity cycle preceded the beginning of the economic cycle by several months during 1982 and 1983, and also during 1996 and 1997. The equity cycle also preceded the beginning of the economic cycle in 2009, which further underscores the Toronto Stock Exchange's role as a leading indicator. It is also important to note that the annual chart does not reflect the impact of the world-wide pandemic that affected Canadian and other economies around the world starting in the first quarter of 2020.

Figure 16.3 | S&P/TSX Composite Canadian Gross Domestic Product (Average Annual Percentage Change) 1979–2020



Source: adapted from Statistics Canada.

For investors who understand the relationship between economic and equity cycles, it is possible to follow the general investment strategies outlined in Table 16.3.

Table 16.3 | General Investment Strategies

Equity Cycle	Business Cycle	Market Conditions	Strategies
Contraction phase	End of expansion through peak, into the	Recession conditions are apparent. Interest rates are high.	Lengthen term of bond holdings by selling short-term bonds and buying

	contraction phase		mid-term to long-term bonds. Try to maintain same yield (income). Avoid or reduce stock exposure.
Stock market trough	Late contraction phase to end of contraction phase	The bottom of the business cycle has not been reached, but the stock market has begun to advance because of falling interest rates and the expectations of an economic recovery.	Sell long-term bonds because they rallied ahead of stocks in response to falling interest rates. Common stocks usually rally dramatically; often, the largest gains occur in the higher-risk cyclical industries.
Recovery and expansion	End of trough, into recovery and expansion phase	The bottom of the business cycle has been reached. Economy starts growing again, unemployment is falling and businesses are making profits.	Increase common stock exposure, given that sustained economic

			growth generally allows stocks to do well.
Equity cycle peak	Late expansion into peak phase	Economic growth has been sustained; however, this has also led to higher interest rates and the Bank of Canada may be tightening its monetary policy. Short-term interest rates tend to be higher than long-term rates (i.e., the yield curve is inverted).	Reduce common stocks exposure and invest in short-term interest-bearing paper. The equity cycle peak is generally followed by the contraction phase.

The problem with these general strategies is that they do not account for the many important variations that occur during an equity cycle. These variations may dramatically affect stock and bond market performance for 12 months or longer.

EXAMPLE

During the expansion phase of 1982 to 1989, the stock market experienced sharp declines due to high interest rates for six months in 1984 and during the stock market crash of 1987. Although the general strategies appear attractive, variations within a cycle can affect asset class performance.

Changes in the S&P/TSX Composite Index price level generally result from changes in interest rates or economic growth. The relationships between interest rate trends and economic trends (and therefore corporate profit trends) are of the greatest significance to equity price levels. These two

factors, in combination, generally account for a high percentage of the change in stock market prices.

As a result, these factors are often used together in asset mix models. Interest rates are used by central banks as a policy tool for managing economic growth; therefore, changes in rates tend to lead to changes in economic growth.

ASSET ALLOCATION

Asset allocation involves determining the optimal division of an investor's portfolio among the different asset classes. For example, based on the client's tolerance for risk and investment objectives, the portfolio may be divided as follows: 10% in cash, 30% in fixed-income securities, and 60% in equities.

Portfolio managers and investors may also alter asset allocation to take advantage of changes in the economic environment.

For example, when the economy enters a period of rapid growth, you must decide how best to take advantage of the market to manage a portfolio. You may find that a heavier weighting in equities will generate better returns than holding more of the portfolio in fixed-income securities or cash.

Alternatively, if you determine that the economy is likely to enter a recession, a heavier weighting in cash or fixed-income securities may generate higher returns. This process of altering a portfolio's asset allocation to take advantage of changes in the economy is one meaning of the term *market timing*.

THE IMPORTANCE OF ASSET ALLOCATION

Portfolio managers generate investment returns through the following four means:

- Choice of an asset mix
- Market timing decisions
- Securities selection
- Chance

Asset allocation is the single most important step in structuring a portfolio. An asset allocation strategy is usually specified in the investment policy statement. Although investment advisors may have the freedom to recommend an array of individual securities – subject to any investment restrictions – the overall proportion of a client's portfolio invested in cash, debt securities and equity securities may be fixed. Decisions regarding asset allocation depend on the client's investment objectives and constraints, as well as the returns available from capital markets.

Table 16.4 demonstrates the importance of the asset mix in determining overall portfolio returns.

Table 16.4 | Asset Mix and Total Return

Asset Group	Index or Average	Portfolio Manager X	Portfolio Manager Y
A. Annual Return by Asset Class			
Cash	10%	11%	9%
Fixed-Income Securities	6%	8%	4%
Equities	25%	30%	20%
B. Actual Asset Mix			
Cash		5%	5%
Fixed-Income Securities		70%	25%
Equities		25%	70%
C. Total Return on a $1,000 Portfolio			
Cash		$5.50	$4.50
Fixed-Income		56.00	10.00

Securities		
Equities	75.00	140.00
Total Return	**$136.50**	**$154.50**
Total Percentage Return	**13.65%**	**15.45%**

In the first part of Table 16.4 (A. Annual Return by Asset Class), Portfolio Manager X outperforms Portfolio Manager Y by 22% in cash, 100% in fixed-income securities, and 50% in equities.

However, the second part (B. Actual Asset Mix) highlights the actual allocation of assets in each portfolio. Clearly, Portfolio Manager X invested more heavily in fixed-income securities, whereas Portfolio Manager Y emphasized equities.

The third part (C. Total Return on a $1,000 Portfolio) shows the total return realized by each portfolio manager in a $1,000 portfolio. Note that total return is calculated by multiplying the amount invested in each asset group by the rate of return for that group and adding the results. Even though Manager X significantly outperformed Manager Y in each asset class, Manager Y's asset mix decisions resulted in the portfolio achieving a higher total return.

The conclusion is clear: when seeking to maximize the total return of a balanced portfolio, it is more important to focus on getting the asset group right than to outperform an index or market average within an asset group. This principle is particularly true when capital markets are volatile.

BALANCING THE ASSET CLASSES

The next step in the asset allocation process is to determine the appropriate balance among the selected asset classes by investigating the client's full circumstances to determine an appropriate asset mix.

The asset allocations shown in Table 16.5 use cash, fixed-income, and equity asset classes to make up suitable portfolios for three different clients. These particular allocations should serve as examples only—they should not be mistaken for templates. Each client's situation is unique.

Table 16.5 | Allocation of Asset Classes

Client	Investments	
A young, healthy, single professional with good investment knowledge, high risk tolerance, moderate tax rate, and a long-time horizon	Cash	5 %
	Fixed Income	25 %
	Equities	70 %
	Allocation	**100 %**
A senior citizen in a low tax bracket with no income other than government pensions, a medium-time horizon, and low-risk tolerance	Cash	8 %
	Fixed Income	67 %
	Equities	25 %
	Allocation	**100 %**
A middle-aged line factory worker, married, with three teenaged children, homeowner, with limited investment knowledge, whose main concerns are	Cash	10 %

employment security and college education funding	Fixed Income	40%
	Equities	50%
	Allocation	**100%**

STRATEGIC ASSET ALLOCATION

Investment management firms, both large and small, often have proprietary, highly sophisticated models to forecast security prices. For the purposes of this course, we show how asset allocation is determined through historical results, as shown in Table 16.6. Considering only equities and fixed income, and with 10% increments in the asset mix, the following are the expected returns for the various asset mixes.

Table 16.6 | Expected Returns for the Various Asset Mixes (as a Percentage)

Asset Mix		Historical Returns		
Equities	**Fixed Income**	**Equities**	**Fixed Income**	**Expected Return on Portfolio**
0	100	10	4.4	4.40
10	90	10	4.4	4.96
20	80	10	4.4	5.52
30	70	10	4.4	6.08
40	60	10	4.4	6.64

50	50	10	4.4	7.20
60	40	10	4.4	7.76
70	30	10	4.4	8.32
80	20	10	4.4	8.88
90	10	10	4.4	9.44
100	0	10	4.4	10.00

Table 16.6 above illustrates an analysis that considers equities-to-fixed-income in various combinations: 0% equities-to-100% fixed income; 10% equities-to-90% fixed income; 20% equities-to-80% fixed income; and so on, to 100% equities-to-0% fixed income. The expected return of each asset mix combination is calculated by the manager. After viewing the possibilities outlined above, and considering the relative riskiness of stocks versus bonds, the manager will choose the optimal combination in consultation with the client. This asset mix is usually expressed in terms of percentage holdings, such as a 60-to-40 equities-to-fixed-income mix (in which case the portfolio will have an expected return of 7.76%).

This base policy mix is called the **strategic asset allocation**, which is the long-term mix that the manager will adhere to through monitoring and, when necessary, rebalancing. As shown in Table 16.6 above, a limited number of asset mixes are analyzed to determine the expected return of each combination. In consultation with the client, the manager then reviews the range of outcomes and chooses the most desirable allocation. This strategic allocation determines the long-term policy asset mix.

Suppose a $100,000 portfolio is invested $60,000 in equities and $40,000 in fixed income, for a 60-to-40 asset mix. If the stock market rose 10%, while the bond market sagged 10%, the investor's portfolio mix would be higher than 60% equities, and lower than 40% fixed income, after the change in market values. This is shown in Table 16.7.

Table 16.7 | Portfolio Changes in Asset Mix

Type of Security	Before Change	Change	After Change

Equities	$60,000	+$6,000	$66,000
Fixed Income	$40,000	–$4,000	$36,000
Asset Mix	60 to 40		64.7 to 35.3

ONGOING ASSET ALLOCATION

After the asset mix is implemented, the asset classes will change in value along with fluctuations in the market, and dividends and interest income will flow into the cash component. As a result, the asset mix will also change.

EXAMPLE

A portfolio starting out with an asset mix of 10% cash, 40% fixed income, and 50% equities could see its cash increase to 15% through cash flows from interest, dividends, and maturing bonds, and the equity component could rise to 55% through rising stock values.

The fixed-income class might be higher in value than before; proportionately, however, it would nevertheless be underweighted at only 30% of the total portfolio value. This drift calls for a rebalancing back to the original policy mix of 10% to 40% to 50%.

With this strategy, you should rebalance in a disciplined manner: you should act before the mix gets too far out of balance, while remaining conscious of transaction costs. You would typically specify that an asset class must move more than a certain percentage—perhaps 5%—before rebalancing.

DYNAMIC ASSET ALLOCATION

Portfolio rebalancing, also known as **Dynamic asset allocation**, is a portfolio management technique that involves adjusting the asset mix to systematically rebalance the portfolio back to its long-term target or strategic asset mix. Rebalancing may be necessary in the following situations:

- There is a build-up of idle cash reserves, possibly from dividends or interest income cash flows that have not been reinvested.

- There are movements in the capital markets causing abnormal returns, such as happened during the 1987 market crash, the 1998 Asian financial crisis, or the 2008–2009 global financial crisis.

The portfolio manager follows a policy that places a limit on the degree to which each asset category can drift above or below the long-term target mix. Rebalancing becomes necessary once an asset category moves above or below this range. For example, the policy may call for rebalancing if equities rise by more than 5% above their target weighting.

A dynamic rebalancing approach is demonstrated in Table 16.8. The strong performance in the stock market has altered the target asset mix to 64.7% equities and 35.3% fixed income. One method of rebalancing the portfolio back to its target mix involves the direct buying and selling of the securities in the portfolio. The table demonstrates the approach needed to restore the target mix, as follows:

- Sell $4,800 worth of equities
- Buy $4,800 worth of fixed income

Table 16.8 | Dynamic Rebalancing

Asset Class	Asset Mix After Rise in Stock Market	New Asset Mix	Dynamic Rebalancing	Re-balanced Portfolio	New Asset Mix
Equities	$66,000	64.7%	–$4,800	$61,200	60%
Fixed Income	$36,000	35.3%	+$4,800	$40,800	40%
Asset Mix	$102,000	100.0%		$102,000	100%

Using the dynamic approach, rebalancing dampens returns in a strong market because the portfolio manager is reducing the strongest-performing component. On the other hand, it enhances returns in a weak market period because the manager purchases under-performing asset classes at reduced prices.

The dynamic strategy is suitable for a more risk-averse investor, such as a retired individual with low risk tolerance. The tax situation of the investor should be reviewed carefully, because active management will result in more realized capital gains and losses.

TACTICAL ASSET ALLOCATION

The investment policy statement may indicate a particular long-run balance of equities to fixed income, but this strategic asset allocation need not be rigid. The statement may also allow for some short-term, tactical, deviations from the strategic mix. This strategy, called **tactical asset allocation**, allows you to capitalize on investment opportunities in one asset class before reverting back to the long-term strategic asset allocation.

DID YOU KNOW?

The strategic allocation is considered the long-term strategy, whereas tactical deviations are short-term strategies.

EXAMPLE

If the bond market is depressed and poised for an upswing, you might overweight the portfolio in fixed-income products well over the strategic asset allocation for fixed income. After a few weeks or months, having profited from this move, you would then move back to the long-term strategic asset allocation. In this way, you can exercise your market timing skills while investing for the expected return indicated by the strategic mix.

Though not a passive strategy, this approach is only moderately active, and is appropriate for the long-term investor who is interested in market timing.

ASSET ALLOCATION STRATEGY

Can you help a client rebalance her portfolio? *Complete the online learning activity to assess your knowledge*.

STEP 4: SELECT THE SECURITIES

4 | Differentiate between security selection and asset allocation.

Many investors and advisors mistake security selection for investment management. Selecting securities without following the other steps in the investment management process is meaningless. Still, the investment management process is pointless without the execution of a plan, thus security selection is the pivotal step in the process. Very simply, security selection is the step in which specific securities—stocks, bonds, managed products or any other investment vehicle—are chosen for inclusion in a client's portfolio. Selection stems from the equity and fixed-income analysis which are covered in other chapters of this course.

STEP 5: MONITOR THE CLIENT, THE MARKET, AND THE ECONOMY

5 | Describe the process for monitoring the portfolio.

Constructing a portfolio is only the beginning of an ongoing management process. Having set the investment policy, and having designed and implemented an asset mix, the next step is to monitor the portfolio. It is essential, therefore, that you develop a system to monitor the appropriateness of the securities that comprise the portfolio and the strategies that govern it.

The monitoring process involves three key areas of focus:

- Changes in the investor's goals, financial position, and preferences
- Expectations for individual securities and capital markets
- Industry trends and the overall economic climate

MONITORING THE CLIENT

It is critical that you stay informed about your client's objectives and that you update the client profile regularly. The NAAF sets out the original profile of income, assets, investment knowledge, and goals. You must monitor the client for changes in these areas. As well, you must monitor the client for changes in tolerance for risk, need for liquidity, need for savings, and tax brackets.

If any significant changes occur, you should complete an amended NAAF.

MONITORING THE MARKETS

Capital markets evolve constantly to reflect changes in government and central bank policies, economic growth or recession, and sectoral shifts in prosperity within the economy. You must be constantly aware of the direction of monetary policy, forecasts for gross domestic product and the inflation rate, shifts in consumer demand and capital spending, and the potential impact of all these factors on the strategic asset mix or on individual holdings.

Your challenge is to anticipate change and systematically adjust the portfolio to reflect both return expectations and the objectives of the client. In adjusting a portfolio, you should follow the same methodology you used when constructing it.

MONITORING THE ECONOMY

The asset mix decision is complex because it involves an analysis of all capital markets. The decision-making process should incorporate virtually all information that may affect each asset class. The scope of this material includes expected activities in the private and public sectors (both nationally and internationally), government policies, corporate earnings, economic analysis, existing market conditions, and the forecaster's interpretation of the data.

Because of the complexity of the data and the subjectivity in interpretation, it is very difficult to make an accurate prediction about the magnitude of change in a particular asset class. Therefore, forecasts are sometimes expressed in ranges, with a minimum and maximum level. This method

reflects the unpredictability of capital markets and indicates the degree of risk anticipated.

The expected total returns for each asset group are calculated by adding the expected annual income to the expected capital gain or loss for each group.

EXAMPLE

If stock prices are expected to increase 10% and dividend yields are forecast to be 4%, then the expected total pre-tax return for equities would be 14%.

PORTFOLIO MONITORING

Can you determine the impact of the economy, the market, and the client's situation on a client's portfolio? *Complete the online learning activity to assess your knowledge*.

STEP 6: EVALUATE PORTFOLIO PERFORMANCE

6 | Calculate and interpret the total return and risk adjusted rate of return of a portfolio.

The success of a portfolio is determined by comparing the total rate of return of the portfolio under evaluation with the average total return of comparable portfolios. In this way, you and your client can compare the client's returns to industry norms and estimate your approximate ranking in relation to the returns of other portfolio managers.

You can estimate the ranking of most individual investors most easily by comparing their performance with the averages shown in one of the surveys of funds appearing regularly in financial publications. Because many different funds are measured in the surveys, you can compare both the total return and the component returns of the client's portfolio. For example, the equity component of a diversified portfolio can be compared with the equity funds shown.

Advisors are often measured against a predetermined **benchmark** that was specified in the investment policy statement. One common benchmark is the T-bill rate plus some sort of performance benchmark; for example, the T-bill rate plus 4%. On portfolios that have low turnover to avoid capital gains taxes, performance against the market benchmark may not be appropriate. What investors are interested in is the protection and growth of their purchasing power.

MEASURING PORTFOLIO RETURNS

A simple method of computing total return is to divide the portfolio's total earnings by the amount invested in the portfolio. Total earnings consist of income plus capital gains or losses. In other words, total earnings consist of the increase (or decrease) in the market value of the portfolio, and are calculated using the following formula:

$$\text{Total Return} = \frac{\text{Increase in Market Value}}{\text{Beginning Value}} \times 100$$

EXAMPLE

In the course of a particular year, a portfolio's market value was $106,000 on January 1 and $110,000 on December 31. On this basis, the return for the portfolio for the year was 3.77%, calculated using the total return formula (pre-tax), as follows:

$$= \frac{\$110{,}000 - \$106{,}000}{\$106{,}000} \times 100$$

$$= \frac{\$4{,}000}{\$106{,}000} \times 100$$

$$= 0.0377 \times 100 = 3.77\%$$

The Total Return formula shown above assumes no contributions to or withdrawals from the portfolio by the client. When cash flows in or out of the portfolio, a portion of the change in the value of the portfolio is the result of the cash flows themselves.

EXAMPLE

In the course of a particular year, a portfolio's market value was $100,000 on January 1 and $150,000 on December 31. The client added $15,000 in cash to the portfolio during the year. Therefore, $15,000 of the $50,000 increase in the value of the portfolio is due to the client contribution, not return on the investment.

The return on a portfolio is affected by both the *amount* and *timing* of portfolio cash flows. There are several ways to deal with cash flows, and different portfolio reporting systems use different methods. Although a thorough discussion of these methods is not within the scope of this course, they are explained fully in two other Canadian Securities Institute courses: *Investment Management Techniques* and *Wealth Management Essentials*.

CALCULATING THE RISK-ADJUSTED RATE OF RETURN

Simply comparing the returns of two portfolios to measure performance does not provide an adequate assessment. You must also factor in the risk assumed to earn those returns. A **risk-adjusted rate of return** is a measure of how much risk is involved to produce a return. Risk-adjusted measures can be applied to individual securities as well as to portfolios.

The **Sharpe ratio**, a risk-adjusted measure shown in Figure 16.4 below, is used by mutual fund companies and portfolio managers to compare the excess return of the portfolio (i.e., the return on the portfolio minus the risk-free return) to the portfolio's standard deviation, thereby taking the portfolio's risk into account.

Figure 16.4 | The Sharpe Ratio

$$S_p = \frac{R_p - R_f}{\sigma_p}$$

Where:

S_p = Sharpe ratio

R_p = Return of the portfolio

R_f = Risk-free rate (i.e., typically the average of the three-month T-bill rate over the period being measured)

σ_P = Standard deviation of the portfolio

If a portfolio is being measured against a benchmark, its Sharpe ratio can be compared to the Sharpe ratio of the applicable benchmark. The larger the Sharpe ratio, the better the portfolio's performance. A group of portfolios can therefore be ranked by their risk-adjusted performance. If a portfolio has a Sharpe ratio greater than the Sharpe ratio of the benchmark, that portfolio's manager has outperformed the benchmark. A portfolio's Sharpe ratio that is smaller than the benchmark's signals underperformance. A negative Sharpe ratio means that the portfolio's manager earned a return less than the risk-free return.

EXAMPLE

A Canadian Equity Fund called DEF had an average fund return of 6% and a standard deviation of 5%. The Canadian Equity Benchmark had an average fund return of 8% and a standard deviation of 10%. The average risk-free return was 1%.

For this example, the Sharpe ratio of the fund and its benchmark are calculated as shown below.

Sharpe ratio:

$$S_{DEF} = \frac{6 - 1}{5} = 1$$

Benchmark:

$$S_B = \frac{8 - 1}{10} = 0.70$$

Both the fund and the benchmark had a positive Sharpe ratio, which means that both had an average return greater than the average risk-free return. However, the DEF risk-adjusted return was higher than the benchmark's risk-adjusted return. That means that DEF was able to earn a greater return for each unit of risk compared to the benchmark. Even though the benchmark produced a higher total return, the benchmark employed twice as much risk to do so.

OTHER FACTORS IN PERFORMANCE MEASUREMENT

Dissimilarities in portfolios also make it difficult to get an accurate performance comparison. Each portfolio may have different risk characteristics or special investor constraints or objectives. When you find that dissimilarities are affecting portfolio returns, you should adjust the conclusions you draw from comparing their performance to accurately reflect the impact of the variables.

The large number of variables in the management and measurement of portfolios make it difficult to assess investment performance. Regardless, in comparing performance, you should be concerned primarily with longer-term results. Those results best measure your management ability in all phases of the business cycle. It is also important to have consistent results and performance trends over several previous measurement periods.

STEP 7: REBALANCE THE PORTFOLIO

7 | Define the purpose of rebalancing the portfolio.

Rebalancing is the final step in the investment management process. This step is closely related to monitoring and performance evaluation. As financial markets and values evolve, their relative weights within client portfolios change. Severe market swings can result in the actual weight of an asset class in the portfolio becoming significantly different from the strategic weight established to meet the client's long-term goals. Rebalancing is the process of reallocating assets back to their originally intended portfolio weights by selling securities that have performed well and buying others that have done poorly.

The rebalancing process is more or less a repeat of the dynamic asset allocation process noted in Step 3. During rebalancing, keep in mind the method of developing a strategic asset mix and the dynamic and tactical approaches to asset allocation.

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, we discussed the following key aspects of the portfolio management process:

- Managing a portfolio of investments is a cyclical, seven-step process. As part of the first step, you must determine what rate of return your clients need to attain their goals, and what risk they are willing and able to take to achieve those goals. In general, investors have three primary investment objectives: safety of principal, income, and growth of capital. Investment constraints are limitations that could prevent a client from taking full advantage of particular investments.
- The second step is to create an investment policy statement containing the rules, guidelines, investment objectives, and asset mix agreed on by you and your client.
- The third step is to formulate an asset mix. The basic asset classes are cash, fixed-income securities, and equities. Asset class timing is the practice of switching among industries and asset classes with a goal of maximizing returns and minimizing losses. In making these decisions, you must observe the stages of the economic cycle, which are directly linked to equity cycles. Tactical asset allocation involves short-term deviations from the strategic mix to capitalize on investment opportunities. Dynamic asset allocation involves adjusting the asset mix to systematically rebalance the portfolio back to its long-term strategic asset mix.
- The fourth step is to select specific securities for inclusion in a client's portfolio.
- The fifth step is to monitor the client, the markets, and the economy. The manager makes decisions in light of changes in the investor's goals, financial position and preferences, relative to changing expectations for capital markets and individual securities and shifts in the economy as a whole.
- The sixth step is to evaluate performance. Success is measured by the total rate of return of the portfolio in comparison to the average total return of comparable portfolios. A portfolio manager's results are often measured against a predetermined benchmark specified in the investment policy statement. A simple method of computing total return is to divide the portfolio's total earnings by the amount invested in the

portfolio. The Sharpe ratio measures the portfolio's risk-adjusted rate of return, using standard deviation as the measure of risk.

- Finally, you must rebalance the portfolio by reallocating assets back to their originally intended portfolio weights. In other words, sell the securities that have performed well and buy others that have done poorly.

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 16 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 16 FAQs.

SECTION 7

ANALYSIS OF MANAGED AND STRUCTURED PRODUCTS

Mutual Funds: Structure and Regulation 17

CHAPTER OVERVIEW

In this chapter, we provide a brief introduction to managed products. We then focus specifically on one of the most widely recognized managed products—mutual funds. We discuss various mutual fund structures and explain the rules and regulations of the industry. We then discuss the importance of Know Your Client and suitability requirements in the context of mutual funds. Finally, you will learn about the requirements around documentation and disclosure.

LEARNING OBJECTIVES	CONTENT AREAS
1 | List the advantages and disadvantages of managed products.	**Overview of Managed Products**
2 | Describe the advantages and disadvantages of mutual funds and the types of fund structures.	**Overview of Mutual Funds**
3 | Calculate a fund's net asset value per share and how mutual fund units or shares are priced.	**Pricing Mutual Fund Units**

4 |	Analyze the impacts of charges associated with mutual funds.	
5 |	Describe the mutual fund regulatory requirements.	**Mutual Fund Regulation**
6 |	Describe mutual fund restrictions and prohibited selling practices.	**Other Forms and Requirements**
7 |	Describe the Know Your Client rule, Know Your Product requirements, and suitability.	**The Know Your Client Rule**
8 |	Discuss the elements that must be included in the client disclosure document, and the circumstances in which Know Your Client information requires an update.	**Requirements for Opening and Updating an Account**

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

active management

annual information form

back-end load

custodian

early redemption fee

F-class fund

front-end load

Fund Facts

low load

managed product

management expense ratio

money market

mutual fund

National Instrument 81-101

National Instrument 81-102

National Registration Database

net asset value per share

no-load fund

offering price

open-end trust

passive management

pre-authorized contribution plan

redemption price

registrar

simplified prospectus

switching fees

System for Electronic Document Analysis and Retrieval

trailer fee

transfer agent

trust deed

unsolicited orders

INTRODUCTION

Managed products have been around since the first modern mutual fund was created in the 1920s. Over the past 35 years, there has been tremendous growth in the number of managed products on the market and in the amount of assets under management. In this chapter and the next, we focus exclusively on mutual funds.

Although they may seem simple and are nearly universally available, **mutual funds** are, in fact, a complex investment vehicle. They are available in many forms and through many distribution channels. They may be one of the most visible vehicles for investors, from the smallest retail client to the largest institutional investor. The funds themselves are subject to a range of unique fee structures, provisions, and regulations. As such, they offer many opportunities and challenges. It is important, therefore, that you fully understand this investment vehicle, particularly if you choose mutual fund sales as a career path.

OVERVIEW OF MANAGED PRODUCTS

1 | List the advantages and disadvantages of managed products.

A **managed product** is a pool of capital gathered to buy securities according to a specific investment mandate. The fund is managed by an investment professional that is paid a management fee to carry out the mandate.

The mandate of a fund can specify either **active management** or **passive management**.

Active management	Active fund managers make investment decisions based on their outlook for the markets and securities in which they invest, which should be clearly identified in the fund's investment mandate. In almost all cases, active fund managers intend to outperform the return on a specific benchmark index.
Passive management	Managers of passively managed funds do not make security selections; they assume only the systematic risk associated with investing in a particular asset class. The most common type of passively managed fund is one that attempts to replicate the returns of a market index.

Managed products are available in various different types and formats, each with specific characteristics. The following types are some of the most common formats:

- Mutual funds
- Exchange traded funds (ETFs)
- Segregated funds

- Liquid alternatives
- Hedge funds
- Listed private equity funds
- Closed-end funds
- Labour-sponsored venture capital corporations (LSVCC)

ADVANTAGES AND DISADVANTAGES OF MANAGED PRODUCTS

Managed products can have various advantages for investors, depending on the particular product.

Professional management	Investors benefit from the experience and specialized knowledge of investment professionals.
Economies of scale	The asset size of the pooled investment funds allows for negotiation of lower fees and transaction costs.
Low cost diversification	Investors with relatively small sums to invest have access to diversification, which they could not otherwise achieve.
Liquidity and flexibility	Some managed products, such as mutual funds, can be bought and sold at their net asset value at any time.
Tax benefits	Products such as LSVCCs can provide tax benefits, including provincial and federal tax credits.
Low cost	Products such as exchange-traded funds have

investment options	some of the lowest management costs in the fund universe.

However, managed products can also have various disadvantages, depending on the type of product.

Lack of transparency	Because of the largely unregulated and competitive nature of their business, products such as hedge funds rarely disclose their portfolio holdings on a timely basis.
Liquidity constraints	Some managed products prevent investors from accessing their funds until a specified time, or only when certain conditions are met.
High fees	Active fixed-income and foreign equity mutual funds can charge 2% to 5% in management fees. Some private equity funds and hedge funds typically charge a 20% performance fee.
Volatility of returns	Some mutual funds and hedge funds can be subject to market instability, as well as volatility associated with their underlying securities.

OVERVIEW OF MUTUAL FUNDS

2 | Describe the advantages and disadvantages of mutual funds and the types of fund structures.

A mutual fund is a single investment vehicle sponsored by an investment management company on behalf of many investors. By selling shares or units to a pool of investors, the fund raises capital, which is then invested according to the fund's investment policies and objectives. The fund makes money from the dividends and

interest it receives on the securities it holds. It may also earn capital gains from trading its investment portfolio.

Thousands of mutual funds exist in the Canadian market and globally that cater to many different investment objectives. Some funds take a passive approach by simply replicating a stock or bond index. Others offer moderate risk and moderate return by balancing investments between fixed income and equities. Still others may be very active by constantly trying to beat the market.

Mutual funds' investment objectives are stated in a document called the **Fund Facts** document. This document generally discloses the degree of risk the fund is exposed to, the main types of securities held in its portfolio, and the historical returns it earned, among other things.

Investors in a mutual fund become unitholders or shareholders in the fund. As such, they share in the income, gains, losses, and expenses the fund incurs in proportion to the number of units or shares they own. Professional money managers manage the assets of the fund by investing the proceeds according to the fund's policies and objectives, and based on a particular investing style.

Mutual funds are sold in units or shares, depending on the structure, which are redeemable on demand at the fund's current **offering price**. In the financial press, the offering price is expressed as the **net asset value per share** (NAVPS) or net asset value per unit. The NAVPS depends on the market value of the fund's portfolio of securities at the time of redemption.

DID YOU KNOW?

The mutual funds industry in Canada has experienced tremendous growth since 1980. In that year, mutual fund net assets totalled $3.6 billion in Canada. By March 2020 mutual fund net assets under management was more than $1.45 trillion. For more information, the Investment Funds Institute

of Canada releases statistics and updates on a monthly basis (www.ific.ca).

Individuals who are licensed to sell mutual funds must have a good understanding of the type and amount of risk associated with each type of fund. As is true with other financial services, you must carefully assess each client's profile to ensure that the type of mutual fund you recommend properly reflects that client's risk tolerance and investment goals. You must also keep in mind that your clients' goals and objectives are not static, so the review process is ongoing, rather than transactional. Finally, proper diversification is important, which means that a client's portfolio should contain an asset mix allocated among cash or near-cash investments, equity investments, and fixed-income investments.

DID YOU KNOW?

For the purposes of this course, we use the term *mutual fund sales representative* to refer to investment advisors who have met the regulatory requirements to sell or advise on mutual funds. However, the term *dealing representative* is also used in the industry.

ADVANTAGES OF MUTUAL FUNDS

Mutual funds provide varying degrees of safety, income, and growth for investors. In addition to these basic provisions, mutual funds also offer investors more specific advantages. The most favourable characteristics are described below.

LOW-COST PROFESSIONAL MANAGEMENT

Mutual funds are continually managed by a fund manager who is an investment specialist, which is perhaps one of the main advantages that mutual funds offer. Fund managers analyze the financial

markets and select securities that best match a particular fund's investment objectives. They also play the important role of continuously monitoring fund performance and fine-tuning a fund's asset mix as market conditions change.

Professional management is an advantage for both small and wealthy investors who do not have the time, willingness, or expertise to monitor a portfolio of securities. The low cost of access to professional management is an additional advantage, especially for small investors.

DIVERSIFICATION

Fund ownership provides an inexpensive way for small investors to acquire a diversified portfolio. A typical large fund might have a portfolio consisting of 60 to 100 or more different securities in 15 to 20 industries. For individual investors in a portfolio of stocks, acquiring such a broad-ranging portfolio is likely not feasible. When individual accounts are pooled in a fund, however, the fund sponsor enjoys economies of scale that can be shared with the unitholders. Thus, fund investors have access to a wider range of securities that can trade more economically than they would as individual investors.

VARIETY OF TYPES AND TRANSFERABILITY OF FUNDS

The many types of mutual funds, ranging from fixed-income funds through to aggressive equity funds, enables investors to meet a wide range of objectives. Many fund families also permit investors to transfer between two or more different funds managed by the same sponsor, usually at little or no added fee. Transfers are also usually permitted between different purchase plans under the same fund.

FLEXIBLE PURCHASE AND REDEMPTION OPTIONS

Investors can make a one-time, lump-sum investment in a mutual fund, or they can make regular purchases in small amounts under a **pre-authorized contribution plan**. This ability to make

accumulative, low-cost contributions is one of the main advantages of mutual funds. For example, an investor can open an account through a pre-authorized contribution plan with as little as $100 and then continue to contribute the same amount monthly.
At redemption, similarly flexible options are available.

LIQUIDITY

Mutual fund shareholders have a continuing right to redeem shares or units for cash at NAVPS. Payments must be made within two business days, in keeping with the securities industry settlement requirements.

EASE OF ESTATE PLANNING

Shares or units in a deceased person's mutual fund continue to be professionally managed during the probate period until estate assets are distributed. In contrast, other types of securities may not be readily traded during the probate period, even when market conditions are changing drastically.

DID YOU KNOW?

The term *estate* refers to all the assets owned by a person at the time of his or her death. Estate planning is the process of arranging ahead of time for the administration and disposal of such property when the time comes. Probate is the process of validating the person's will after death before distributing the estate assets.

LOAN COLLATERAL AND MARGIN ELIGIBILITY

Fund shares or units are usually accepted as security for a bank loan. They are also acceptable for margin purposes, thus giving aggressive fund buyers the benefit of leverage in their financial

planning. Note that the use of fund assets for this purpose also poses risk.

VARIOUS SPECIAL OPTIONS

Mutual funds consist of not only an underlying portfolio of securities, but also the following customer services:

Reinvestment and contributions	Most mutual funds offer the opportunity to compound an investment through the reinvestment of dividends. Other mutual funds allow investors to make monthly contributions in amounts as low as $50 per month.
Regulatory filing	Sponsors of mutual funds file a variety of reports annually to meet their regulatory disclosure requirements. These reports include the **annual information form** (AIF), audited annual and interim financial statements, and an annual report, among others. Reports must be provided to unitholders (or any person) on request. They are easily retrieved through the **System for Electronic Document Analysis and Retrieval** (SEDAR) website. Increasingly, these reports contain useful educational features such as manager commentaries.
Record-keeping	Other benefits associated with managed products include record-keeping features that assist with income tax reporting and other accounting requirements.

DISADVANTAGES OF MUTUAL FUNDS

Mutual funds also have disadvantages. In the role of a sales representative, you should be able to explain to your clients the disadvantages of investing in mutual funds, as described below.

COSTS

There are various charges associated with investing in a mutual fund. Historically, most mutual funds charged a sales commission up front, called an initial sales charge or **front-end load**, along with a management fee that was typically higher than the cost to purchase individual securities from a broker. If you pay this sales commission when you sell the fund it's called a deferred sales charge or **back-end load**. More recently, **no-load funds** have become commonplace as competition from lower cost index mutual funds and exchange-traded funds has intensified. Competition in the market has subsequently reduced both front-end loads and management fees.

SHORT-TERM UNSUITABILITY

Most funds emphasize a long-term investment horizon and thus are generally unsuitable for investors wanting short-term gains for an emergency reserve. Because sales charges are often deducted from a planholder's contributions, purchasing funds on a short-term basis is generally not advised. The investor would have to recoup at least the sales charges on each trading transaction.

Mutual fund companies charge an early redemption fee to discourage short-term trading. The prospectus as well as the cost section of the Fund Facts document will identify the fee for short-term trading. The cost could range as high as 2% of the purchase cost of the securities redeemed.

EXAMPLE

Murray was considering using Defy Global Equity Fund as a vehicle for short-term trading. However, he changed his mind

once he read the following statement found in the mutual fund's cost section of the Fund Facts document:

> *Defy Mutual Funds monitors for short-term trading activity. You are charged a short-term trading fee of 2% of the value of the securities if you redeem or switch securities within 30 days of buying securities of the Global Equity Fund.*

However, these disadvantages typically do not apply to **money market** funds, which are designed with liquidity in mind given that these funds mainly invest in short-term fixed-income securities.

SYSTEMATIC RISK

Like equities, mutual fund units can lose value in falling markets; in other words, they are subject to systematic risk. Volatility in the market is extremely difficult to predict, and is thus not controllable by the fund manager.

TAX COMPLICATIONS

Unless the investor's holdings are in a registered account, purchases and sales made by the fund manager creates a series of taxable events that may not suit that unitholder's time horizon. For example, the manager might consider it in the best interests of the fund to take a profit on a security holding. At the same time, the individual unitholder might have been better off if the fund had held on to the position and deferred the capital gains liability.

MUTUAL FUND STRUCTURED AS A TRUST

Although a mutual fund may be structured as either a trust or a corporation, the most common structure for mutual funds is the unincorporated **open-end trust**. The trust structure enables the fund itself to avoid taxation. Any interest, dividends or capital gains income, net of fees and expenses, flows-through directly to the

unitholders. That income is taxed in the hands of the unitholder, based on the type of income the fund generates.

The **trust deed** establishing the open-end fund covers such things as the fund's principal investment objectives, its investment policy, and any restrictions on its investments, among other things. It also establishes who the fund's manager, distributor, and custodian will be.

Investors in an open-end mutual fund receive *units*. They have the right to redeem their units at a price that is the same as, or close to, the fund's current NAVPS. They may or may not be given voting rights under the terms of the trust agreement. Investors should consult the fund's prospectus before purchasing units, to better understand their rights. (Mutual funds prospectuses are discussed later in this chapter.)

The governing policy for mutual funds, in most cases, requires that funds convene a meeting of security holders to consider and approve specific issues. These issues include such matters as a change in the fund's fundamental investment objectives, a change in auditor or fund manager, or a decrease in the frequency of calculating NAVPS.

MUTUAL FUND STRUCTURED AS A CORPORATION

A mutual fund can also be set up as a federal or provincial corporation, provided that it meets the following conditions set out in the *Income Tax Act*:

- The corporation's holdings must consist mainly of a diversified portfolio of securities.
- The income it earns must be derived primarily from the interest and dividends paid out by these securities and any capital gains realized from the sale of these securities for a profit.

Investors in mutual fund corporations receive *shares* in the fund, rather than units.

Investment funds established as corporations lack the flow-through status of investment fund trusts. However, the corporation can achieve a virtually tax-free status by declaring dividends throughout the year that are equivalent to the corporation's net income after fees and expenses. These dividends are then taxed in the hands of the shareholder.

ORGANIZATION OF A MUTUAL FUND

The typical structure and organization of mutual funds, including its directors, manager, distributors, and custodian, are described below.

Directors and trustees	The directors of a mutual fund corporation, or the trustees of a mutual fund trust, hold the ultimate responsibility for ensuring that investments in the fund are consistent with the fund's investment objectives. To assist in this task, they may contract out the business of running the fund to an independent fund manager, a distributor, and a custodial organization.
Fund manager	The fund manager provides day-to-day supervision of the fund's investment portfolio. In trading the fund's securities, the manager must observe the guidelines specified in the fund's own charter and prospectus, as well as constraints imposed by provincial securities commissions. The manager must also maintain a portion of fund assets in cash and short-term highly liquid investments. The manager is thus able to redeem fund shares on demand, pay dividends, and make new portfolio purchases as opportunities arise. Managers must judge the amount of cash needed

and still have fund assets productively invested as fully as possible. Their ability to do so has a direct bearing on the success of the fund.

Managers also have the following responsibilities:

- Calculate the fund's NAVPS
- Prepare the fund's Fund Facts documents, **simplified prospectus**, and reports
- Supervise shareholder or unitholder record-keeping
- Provide the custodian with documentation for the release of cash or securities.

The fund manager receives a management fee for these services, which accrues daily and is paid monthly. Fees are calculated as a percentage of the net asset value of the fund being managed.

Distributors

Mutual funds are sold by the following distributors:

- Investment advisors employed by securities firms
- A sales force employed by some organizations that control both management and distribution groups
- Independent direct sales organizations
- In-house distributors, including employees of trust companies, banks, or credit unions who have duties other than selling

In selling mutual funds, the distributor's representatives must explain the objectives and terms of various funds in language that is understandable to new, often unsophisticated investors. They also mail out confirmations of sales,

handle client inquiries about features of the fund, and accept and transmit orders for fund share redemptions.

In the process, they offer clients financial planning assistance that involves “know your client” and suitability standards. These standards are as important in mutual fund sales as they are in the general securities business.

As compensation for these services, the distributor usually receives a sales fee.

Custodian

When a mutual fund is organized, an independent financial organization, usually a trust company, is appointed as the fund’s **custodian**. The custodian collects money received from the fund’s buyers and from portfolio income, and arranges for cash distributions through dividend payments, portfolio purchases, and share redemptions.

Sometimes the custodian also serves as the fund’s **registrar** and **transfer agent**, maintaining records of who owns the fund’s shares. This duty is complicated by the fact that the number of outstanding shares is continually changing through sales and redemptions. Fractional share purchases and dividend reinvestment plans further complicate this task.

MUTUAL FUNDS FUNDAMENTALS

How are mutual funds structured? What are the advantages and disadvantages of investing in them? *Complete the online learning activity to assess your knowledge*.

PRICING MUTUAL FUND UNITS

3 | Calculate a fund's net asset value per share and how mutual fund units or shares are priced.

4 | Analyze the impacts of charges associated with mutual funds.

Mutual fund shares or units are purchased directly from the fund (often through a distributor) and are sold back to the fund when the investor redeems his or her units. Because the fund's units cannot be purchased from or sold to anyone other than the fund, mutual funds are said to be in a continuous state of primary distribution. Before purchasing any mutual fund units, the purchaser must receive a Fund Facts document.

The price an investor pays for a share or unit is its offering price, which is based on the NAVPS at the close of business on the day the order was placed.

The NAVPS is the theoretical amount that a fund's shareholders would receive for each share if the fund were to sell all its portfolio of investments at market value, collect all receivables, pay all liabilities, and distribute what is left to its shareholders. It is also used to calculate the **redemption price**, which is the amount (subject to redemption fees, if any) that a shareholder receives when he or she redeems the shares.

If a mutual fund does not charge a sales commission to purchase a share or unit, an investor would pay the fund's current NAVPS.

NAVPS is calculated as follows:

$$\text{NAVPS} = \frac{\text{Total Assets} - \text{Total Liabilities}}{\text{Total Number of Shares or Units Outstanding}}$$

EXAMPLE

ABC fund has $13,000,000 in assets, $1,000,000 in liabilities, and 1,000,000 units outstanding. The offering price (the price paid by an investor for 1 unit) is calculated as follows:

$$\text{NAVPS} = \frac{13{,}000{,}000 - 1{,}000{,}000}{1{,}000{,}000} = 12$$

Thus, the NAVPS of this fund is $12. This is also the redemption price, if the fund does not levy any sales charges or fees.

Because most funds calculate an offering or redemption price at the close of the market each day, a specified deadline during the day is set. The generally accepted deadline to get the end of day price is 4:00 p.m. ET. Orders received after that deadline are processed at the price calculated at the end of the next business day.

Mutual fund representatives are expected to transmit any order for purchase or redemption to the principal office of the mutual fund on the same day the order is received. Payment for redeemed securities must be made within two business days after the NAVPS is determined.

The frequency with which mutual funds calculate NAVPS varies. Regulation requires that new funds calculate NAVPS at least once a week. However, funds that were calculating NAVPS on a monthly basis when this regulation came into effect may continue to do so.

In reality, most large funds calculate NAVPS each business day after the markets have closed. If a fund computes its NAVPS less frequently than daily, sales and redemptions are made at the next valuation date. If computed monthly, a fund may require that requests for redemption be submitted up to 10 days before the date of the NAVPS computation. One exception to these rules is real estate funds. They must compute the NAVPS at least once a year, although most funds make the calculation on a quarterly basis.

CHARGES ASSOCIATED WITH MUTUAL FUNDS

Mutual funds can be categorized by the type of sales commission that is levied.

Most load funds have optional sales charges that let the investor choose between front-end or back-end charges. The actual level of the sales charge levied by load funds depends on the following factors:

- The type of fund
- Its sponsor and method of distribution
- The amount of money being invested
- The method of purchase (i.e., lump sum purchases versus contractual purchases spread out over a period of time)

Front-end sale charges vary from firm to firm. Because they are set by the distributor, they are often negotiable, especially if a large amount of money is involved. Back-end sale charges are set by the dealer and are not negotiable. A no-load fund has no sale charges when the fund is purchased or redeemed.

Calculating the impact of the various types of fees on mutual funds can be a complicated process. The Ontario Securities Commission and the department of Innovation, Science and Economic Development Canada (ISED) have developed an online tool to assist in this process.

DID YOU KNOW?

The Mutual Fund Fee Impact Calculator allows investors to determine the impact that mutual fund fees have on investment returns over time. You can find this tool at www.getsmarteraboutmoney.ca.

NO-LOAD FUNDS

Many mutual funds, primarily those offered by direct distribution companies, banks, and trust companies, have no sale charges when investors purchase or redeem units and are referred to as no-load funds. However, some self-directed brokers levy modest administration fees to process the purchase and redemption of no-load funds. Also, like other funds, these funds charge some management fees and other administrative fees.

FRONT-END LOADS

A front-end load is payable to the distributor at the time units are purchased. It is usually a percentage of the purchase price. The percentage typically decreases as the amount of the purchase increases.

Investors should be aware that the front-end load effectively reduces the actual amount invested, which makes the overall offering price higher than the NAVPS. Regulations require that front-end loads be disclosed in the prospectus, both as a percentage of the purchase amount and as a percentage of the net amount invested.

EXAMPLE

A $1,000 investment in a mutual fund has a 4% front-end load, which means that $40 (or 4% × $1,000) goes to the distributor by way of compensation. Therefore, only the remaining $960 is actually invested.

The prospectus states that the front-end load charge is 4% of the amount purchased (calculated as [$40 ÷ $1,000] ×100) and 4.17% of the amount invested (calculated as [$40 ÷ $960] × 100).

CALCULATING A FRONT-END LOAD

To determine a fund's offering price when it has a front-end load charge, you must first determine the NAVPS and then make an adjustment for the load charge, as in the following calculation:

$$\text{Offering Price} = \frac{\text{NAVPS}}{100\% - \text{Sales Charge}}$$

EXAMPLE

For a $1,000 investment in a mutual fund with a NAVPS of $12 and a 4% front-end load, the offering price is calculated as follows:

$$\text{Offering Price} = \frac{12}{100\% - 4\%} = \frac{12}{0.96} = \$12.50$$

Note that the sales charge of 4% of the offering price is the equivalent of 4.17% of the net asset value (or net amount invested), which is calculated as follows:

$$4\% \ \textit{of} \ 12.50 = 0.50$$

$$\frac{0.50}{12} = 4.17\%$$

BACK-END LOADS

A back-end load, or *deferred sales charge*, is payable to the distributor at the time of redemption or sale of the fund. The fee may be based on the original contribution to the fund or on the net asset value at the time of redemption.

In most cases, the back-end loads decrease the longer the investor holds the fund. For example, an investor might incur back-end loads according to the schedule shown in Table 17.1.

Table 17.1 | Back-End Load Schedule

Year Funds Are Redeemed	Back-End Loads
Within the first year	6%

In the second year	5%
In the third year	4%
In the fourth year	3%
In the fifth year	2%
In the sixth year	1%
After the sixth year	0%

EXAMPLE

Calculating a Back-End Load

An investor purchases units in a mutual fund at a NAVPS of $10. If the investor decides to sell the units in the fourth year, when the NAVPS is $15, the fund will charge a 3% back-end load or commission.

If the back-end load is based on the *original purchase amount*, the investor receives $14.70 per unit, calculated as follows:

Selling/Redemption Price = NAVPS – Sales commission

= NAVPS – (NAVPS × sales percentage)

= $15 – ($10 × 3%)

= $15 – $0.30

= $14.70

If the back-end load is instead based on the *NAVPS at the time of redemption*, the investor receives $14.55, calculated as follows:

Selling/Redemption Price = $15 – ($15 × 3%)

= $15 – $0.45

= $14.55

Some companies offer low load funds. A **low load** is similar to a back-end load, but with a shorter fee schedule such as three years.

TRAILER FEES

Mutual funds also incur a **trailer fee**, sometimes called a service fee. The mutual fund manager may pay an annual trailer fee to the mutual fund sales representative who sold the fund, as long as the client holds the funds. Trailer fees are usually paid out of the fund manager's management fee.

The justification for the fund manager paying a fee is that the representative provides ongoing services to investors, including investment advice, tax guidance, and financial statements.

DID YOU KNOW?

The value of trailer fees is an ongoing debate within the industry.

Those in favour of such fees feel that ongoing services are a valuable benefit to investors, and that salespeople must be compensated for their work.

Those who oppose trailer fees believe that they can produce a conflict of interest for sales representatives, who may be tempted to encourage investors to stay in the fund, even when market conditions indicate that they should redeem their shares. Critics of trailer fees also argue that investors who hold funds for the long term end up paying higher overall fees than they would if they had paid a one-time, front- or back-end load.

OTHER FEES

Two other mutual fund fees may be charged in some cases:

- A small number of funds charge a set-up fee on top of a front-end or back-end load.
- Another type of fee is the **early redemption fee**, which may be charged on some no-load funds. The prospectus for such funds states that a fee is charged when the fund is redeemed within 90 days of the initial purchase. It could be a flat fee of $100 or 2% of the original purchase cost. This fee is charged to discourage short-term trading, and to recover administrative and transaction costs.

SWITCHING FEES

Switching fees may apply when an investor exchanges units of one fund for another in the same family or fund company. Some mutual fund companies allow unlimited free switches between funds; others permit a certain number of free switches in a calendar year before fees are applied. In many cases, the advisor may charge a negotiable fee to a maximum of 2% of the amount being transferred. Some advisors choose to waive this fee altogether.

Switching fees generally do not apply if a fund merges with another or is being terminated for any other reason. In such cases, the investor is allowed to transfer to the existing fund or withdraw the cash value of the contract without incurring withdrawal fees.

MANAGEMENT FEES

Management fees vary widely depending on the type of fund, particularly on the level of service required to manage the fund, as described below.

Money market funds	Management fees associated with money market funds are low; typically, they range from 0.50% to 1%.
Equity	The management of equity funds (with the exception of

funds	index funds) requires ongoing research. Therefore, management fees are higher; typically, ranging from 2% to 3% (or higher).
Index funds	Index funds try to mirror the market with occasional rebalancing. Because this strategy is largely a passive buy-and-hold strategy, management fees are usually lower than those of equity funds.

In all cases, the management fees charged are outlined in the prospectus.

Management fees are generally expressed as a straight percentage of the net assets under management. For example, the fee might be expressed as follows: “An annual fee of not more than 2% of the average daily net asset value computed and payable monthly on the last day of each month”. This method of compensation has been criticized because it rewards fund managers not on the performance of the fund, but on the level of assets managed. Of course, a fund that consistently underperforms will lose assets as investors redeem their holdings.

The management fee compensates the fund manager, but it does not cover the following operating expenses:

- Interest charges
- Taxes, audit, and legal fees
- Safekeeping and custodial fees
- Provision of information to share or unitholders

These expenses are charged directly to the fund.

The **management expense ratio** (MER) represents the total of all management fees and other expenses charged to a fund, expressed as a percentage of the fund’s average net asset value for the year. Trading or brokerage costs are excluded from the MER calculation

because they are included in the cost of purchasing or selling portfolio assets.

The MER is calculated as follows:

$$\text{MER} = \frac{\text{Aggregate Fees and Expenses Payable During the Year}}{\text{Average Net Asset Value for the Year}} \times 100$$

EXAMPLE

A fund with $500 million in assets has total annual expenses of $10 million. Its MER for the year is 2% (calculated as $10 ÷ $500).

All expenses are deducted directly from the fund, as opposed to charged to the investor. As such, they decrease the ultimate returns to the investors. For example, if a fund reports a compound annual return of 8% and an MER of 2%, it has a gross return of roughly 10%. This means that the MER, expressed as a percentage of returns, is 20% of the return (calculated as [2% ÷ 10%] × 100).

DID YOU KNOW?

Another ratio used to measure fund performance is the trading expense ratio (TER). Unlike the MER, which represents the total of *all* management fees and other expenses, the TER represents only the amount of trading commissions incurred to manage the portfolio, compared to the total assets of the fund.

Published rates of return on mutual funds are calculated after deducting the MER. The NAVPS of the funds, on the other hand, are calculated after the management fee has been deducted. By law, funds must disclose in the fund prospectus both the management fee and the MER for the last five fiscal years.

F-CLASS FUNDS

An **F-class fund** is a type of fee-based fund with a lower MER. With a fee-based account, the client is charged a percentage of the assets under management, rather than a commission or fee for each transaction. In the past, on top of the asset-based fee, clients were charged an MER that included compensation to the sales representative. To accommodate fee-based financial advisors, many mutual fund companies began offering F-class mutual funds. These funds reduce or eliminate the double charge. As a result, many more financial advisors now provide fee-based, rather than commission-based, accounts.

MUTUAL FUNDS FEES

What are the costs and fees associated with purchasing, owning, and redeeming mutual fund units? *Complete the online learning activity to assess your knowledge*.

MUTUAL FUND REGULATION

5 | Describe the mutual fund regulatory requirements.

The Canadian securities industry is a regulated industry in which each province and territory has its own securities act and its own regulator. Regulators are responsible for regulating the underwriting and distribution of securities designed to protect investors and the industry.

Securities regulations related to mutual funds are based on three broad principles: personal trust, disclosure, and regulation. The success of these principles in promoting positive market activities relies largely on ethical conduct by industry registrants.

MUTUAL FUND REGULATORY ORGANIZATIONS

Investment firms that are members of one or more of the Canadian self-regulatory organizations (SROs), and the registered employees of such dealer members, are subject to the rules and regulation of the applicable SROs. (For more information about SROs, consult Chapter 3 in Volume 1 of this course.) Furthermore, all securities industry participants are subject to the securities law in their particular province, and in any other province where the relevant securities administrators may claim jurisdiction.

DID YOU KNOW?

Note that any reference to *province* or *provincial* encompasses not only Canada's 10 provinces, but also its three territories.

The Mutual Fund Dealers Association (MFDA) is the SRO for the distribution side of the mutual fund industry. It does not regulate the funds themselves; that responsibility remains with the provincial securities commissions. However, the MFDA does regulate how the funds are sold. The organization is not responsible for regulating the activities of dealers who are already members of another SRO. For example, members of the Investment Industry Regulatory Organization of Canada (IIROC) who sell mutual fund products will continue to be regulated by IIROC.

In Quebec, the mutual fund industry is under the responsibility of the Autorité des marchés financiers and the Chambre de la sécurité financière. The Autorité is responsible for overseeing the operation of fund companies within the province, whereas the Chambre is responsible for setting and monitoring continuing education requirements and for enforcing a code of ethics. A co-operative agreement currently in place between the MFDA and the Quebec

regulatory organizations will help to avoid regulatory duplication and to ensure that investor protection is maintained.

NATIONAL INSTRUMENTS 81-101 AND 81-102

Canadian funds fall under the jurisdiction of the securities act of each province. Securities administrators control the activities of these funds, their managers, and their distributors by means of a number of national and provincial policy statements dealing specifically with mutual funds. Provincial securities legislation governing all issuers and participants in securities markets also imposes requirements.

Examples of applicable legislation include two national instruments:

- **National Instrument 81-101** deals with mutual fund prospectus and Fund Facts disclosure.
- **National Instrument 81-102** and its companion policy contain requirements and guidelines for the distribution and advertising of mutual funds.

GENERAL MUTUAL FUND REQUIREMENTS

Most mutual funds are qualified for sale in all provinces and are therefore registered for sale in each jurisdiction. With certain exceptions, the funds must annually file a full or simplified prospectus, which must be acceptable to the provincial securities administrator. Most funds, particularly the smaller ones, file a prospectus or a simplified prospectus only in provinces where sales prospects appear favourable. Selling a fund's securities to residents of provinces in which the fund has not been qualified is prohibited. Therefore, mutual fund representatives must deal only in those funds registered in their own jurisdiction.

Because mutual funds are considered to be in a continuous state of primary distribution, investors must receive a Fund Facts document

before making any purchase. The actual requirements are set out in NI 81-101.

Mutual funds require the following disclosure documents:

- A Fund Facts document
- A simplified prospectus
- The AIF
- The annual audited statements or interim unaudited financial statements
- Other information required by the province or territory where the fund is distributed, such as material change reports and information circulars

NI 81-101 requires only that the Fund Facts document be delivered to investors before they purchase a mutual fund. However, an investor may also request delivery of the simplified prospectus, the AIF, or the financial statements. In such case, the distributor must provide all those documents as well.

THE FUND FACTS DOCUMENT

The Fund Facts document is designed to give investors key information about a mutual fund. It must be written in plain language and must consist of no more than two double-sided pages. It must be presented in an easily understood format that follows a universal standard so that investors can compare mutual fund data consistently. The purpose of the Fund Facts document is to provide timely information that may affect the investors' decision.

Pre-purchase delivery of the Fund Facts document to investors is mandatory for each class or series of mutual funds. It may be delivered in person, by email, or through other means, according to how the dealer typically interacts with its investors.

The following disclosure of investor rights related to withdrawal and misrepresentation must appear in the Fund Facts document:

- Investors have the right to withdraw from the purchase within 48 hours after confirmation of the purchase is received.
- Depending on the province, they maintain their right of damages or to rescind the purchase if the Fund Facts document, simplified prospectus, AIF, or financial statements contain a misrepresentation.
- Each province specifies a time limit within which investors must act to claim the right to damages or rescission.
- Investors can request a copy of the simplified prospectus at no charge.

DISCLOSURE COMPONENTS OF FUND FACTS

As shown in Table 17.2, the Fund Facts document is divided into two major sections, each with subsections of related items.

Table 17.2 | Components of the Fund Facts Document

Section 1: Fund Information	
Introduction	This subsection provides the document date, fund name, fund manager name, and name of class or series, if the mutual fund has more than one.
Quick Facts	This subsection provides key background points, including the date the fund was created, the total value of all units of the fund, the MER, the identity of the portfolio manager, the expected frequency and date of distributions, and the minimum investment needed for both the initial and repeat purchases.
Investment of the Fund	This subsection describes the fundamental nature of the mutual fund under the heading “What Does the Fund Invest In?” It provides a list of top the 10

	investments and the percentage of net asset value for each investment, as well as the investment mix and a breakdown of the fund's investment exposure.
Risks	This subsection reminds investors that the fund is subject to a certain degree of risk. It rates the extent of the fund's risk on a scale that ranges from low, low-to-medium, medium, medium-to-high, and high. It also reminds investors that the fund does not guarantee a return and that they may not get back the amount of money invested.
Past Performance	This subsection asks "How has the fund performed?" and provides the following three illustrations: • A chart showing returns, after expenses have been deducted, over the previous 10 years on a year-by-year basis (or since the date of its inception, if under 10 years). • A table showing both the best and worst returns for the fund in a three-month period over the previous 10 years (or since the date of its inception, if under 10 years). • An average return calculation based on an investment of $1,000 into the fund 10 years ago (or since the date of its inception, if under 10 years) and its worth today, together with the percentage annual compound return during this period.
Suitability	This subsection asks "Who is this fund for?" It describes the characteristics of the investor for whom the fund may or may not be appropriate, and the portfolios for which the fund is and is not suited.

Impact of Income Taxes on Investor Returns	This item highlights the tax consequences of the fund under the heading of “A Word About Taxes”.

Section 2: Costs, Rights, and Other Information	
Cost of Buying, Owning, and Selling the Fund	This subsection outlines the following three items: • Sales charges—This item discloses the types of fees charged to the investor, whether they are front load, low load, deferred sales charges, or no load. • Fund expenses—These expenses may include the MER and the TER. Both ratios are expressed as a percentage value and translated to a dollar figure relative to every $1,000 invested. Trailing commissions are also highlighted in this area. • Other fees—Fees may include short-term trading fees, switch fees, change fees, or a combination.
Statement of Rights	This subsection asks “What if I change my mind?” It advises the investor of their rights and options within a defined period, including the right to cancel a purchase within 48 hours after receiving confirmation of the purchase.
More Information About the Fund	This subsection provides contact information for investors who may wish to obtain more information, such as the simplified prospectus and other disclosure documents.

THE SIMPLIFIED PROSPECTUS

In addition to the Fund Facts document, the simplified prospectus of a mutual fund must be filed and mailed or otherwise delivered to mutual fund investors upon request.

A mutual fund prospectus is normally shorter and simpler than a typical prospectus for a new issue of common shares. Under the simplified prospectus system, the issuer must abide by the same laws and deadlines that apply under the full prospectus system. As well, the buyer is entitled to the same rights and privileges.

The simplified prospectus must be filed with the securities commission annually, but need not be updated annually unless there is a change in the affairs of the mutual fund. Like the Fund Facts document, the simplified prospectus must be written in plain language and presented in an easy-to-understand format. For further purchases of the same fund, it is not necessary to provide the Fund Facts document or simplified prospectus again unless it has been amended or renewed.

The simplified prospectus has the following two sections:

- Part A provides introductory information about the mutual fund, information about mutual funds in general, and information applicable to funds managed by the mutual fund.
- Part B contains detailed information about the specific mutual fund.

The simplified prospectus may be used to qualify more than one mutual fund. However, Part A of each prospectus must be substantially similar, and the funds must belong to the same mutual fund family, administered by the same entities, and operated in the same manner.

The simplified prospectus must contain the following information:

- Introductory statement describing the purpose of the prospectus and identifying the other information documents that the fund must make available to investors

- Name and basic information about the issuer, including a description of the issuer's business
- Risk factors and description of the securities being offered
- Method used to set the price of the securities being sold or redeemed, and disclosure of any sales charges
- Method of distribution
- Statement of who has the responsibility for management, distribution, and portfolio management
- Fees paid to dealers
- Statement of management fees and other expenses, including the annual MER for the past five years
- The fund's investment objectives and practices
- Information on the amount of dividends or other distributions paid by the issuer
- In general terms, the income tax consequences to individuals holding an investment in the fund
- Notice of any legal proceedings material to the issuer
- Identity of the auditors, transfer agent, and registrar
- Statement of the purchaser's statutory rights
- Summary of the fees, charges, and expenses payable by the security holder

The prospectus must be amended concurrently with the Fund Facts document when material changes occur, and investors must receive a copy of the amendment.

Funds that invest in real property may not use the simplified prospectus system under NI 81-101.

As part of the simplified prospectus system, a fund must provide its investors with financial statements on request. Annual audited financial statements must be made available to the securities

commission (or commissions) where the fund is registered on or before the deadline set by the commission. These statements must be made available to new investors.

Financial statements that are unaudited at the end of six months after the fund year-end must also be submitted to the securities commissions, usually within 60 days after the reporting date. These statements must also be made available to new investors.

THE ANNUAL INFORMATION FORM

The AIF must be delivered to investors on request. Much of the disclosure required in the AIF is similar to that provided in the simplified prospectus. In addition to that information, the AIF contains the following details:

- Significant holdings in other issuers
- The tax status of the issuer
- Directors, officers, and trustees of the fund and their indebtedness and remuneration
- Associated persons, the principal holders of securities, and the interests of management and others in material transactions
- The particulars of any material contracts entered into by the issuer

OTHER FORMS AND REQUIREMENTS

6 | Describe mutual fund restrictions and prohibited selling practices.

Under securities legislation, mutual fund dealers must abide by several other requirements. Those additional requirements are described below.

REGISTRATION REQUIREMENTS FOR THE MUTUAL FUND INDUSTRY

Mutual fund managers, distributors, and sales representatives must be registered with the securities administrators in all provinces in which they operate. The commissions also insist that they be informed within five business days of any important change in personal circumstances, such as a change of address or a bankruptcy.

EDUCATION QUALIFICATIONS

Mutual fund sales representatives must have successfully passed a mutual funds course such as the Canadian Securities Institute's *Canadian Securities Course* (this two-volume course), the *Investment Funds in Canada* course, or another qualifying education program.

REGISTRATION REQUIREMENTS

An application for registration must be filed electronically with the **National Registration Database** (Form NRD 33-109F4), with the appropriate fee. Provincial securities acts set the requirements for initial and continuing registration. In Quebec, the representative must register with the Autorité des marchés financiers.

To work as a mutual fund sales representative, you must also meet the following requirements, among others:

- Generally, you must be employed by the distribution company.
- You are not permitted to carry on other forms of employment without the prior approval of the appropriate securities administrators and any industry associations of which your firm is a member. However, many provinces have issued policy statements permitting persons to be dually registered as mutual fund representatives and life agents.

- You must complete a detailed report about your past businesses, employment, and conduct and submit it to a police review. The report must include the following information:
  - Any companies with which you have been associated in certain capacities
  - Any action against you regarding any government licence to deal in securities
  - Any action against you regarding any government licence to deal with the public in any other capacity requiring registration
  - Any disciplinary action regarding an approval by any securities commission or similar professional body
  - Any past criminal convictions or current charges or indictments
  - Any bankruptcies or proposals to creditors
  - Any civil judgment or garnishment

NOTICE OF CHANGES

As a mutual fund representative, you must notify the provincial securities administrator within five business days (or 10 days in Quebec) of any of the following changes in your provincial application:

- Change of address
- Disciplinary action of a professional body
- Personal bankruptcy (Ontario and Quebec)
- Criminal charges or civil judgments

TRANSFER OF REGISTRATION

As soon as a mutual fund sales representative ceases to work for a registered dealer, registration is automatically suspended. The

employer must notify the provincial securities administrator of the termination of employment and, in most provinces, the reason for termination.

Before a representative's registration can be reinstated, notice in writing must be received by the securities administrator from another registered dealer of the employment of the representative by that other dealer. The reinstatement of the registration must be approved by the securities administrator.

If the securities administrator does not receive a request for reinstatement and transfer to a new company within the permitted period, the registration lapses and the representative must reapply for registration. The permitted period is 30 days in most provinces and six months in Quebec.

MUTUAL FUND RESTRICTIONS

A mutual fund's manager provides day-to-day supervision of the fund's investment portfolio. In trading the fund's securities, the manager must observe a number of guidelines specified in the fund's charter and prospectus, as well as constraints imposed by provincial securities commissions.

RESTRICTIONS ON MUTUAL FUND MANAGEMENT PRACTICES

When managing a portfolio of securities, mutual fund managers are restricted on what they can or cannot do. Some funds have more restrictions than others.

A mutual fund manager may have any or all of the following restrictions:

- Purchases of no more than 10% of the total securities of a single issuer or more than 10% of a company's voting stock
- No purchases of shares in the manager's own company (e.g., a fund owned by a bank cannot buy shares in that bank)

- Purchases of no more than 10% of the net assets in the securities of a single issuer or 20% of net assets in companies engaged in the same industry (except specialty funds)
- No purchases of the shares of other mutual funds, except in certain cases where no duplication of management fees occurs
- No borrowing for leverage purposes
- No margin buying or short selling
- No commodity or commodity futures purchases
- Limitations on the percentage of holdings in illiquid securities, such as those sold through private placement and unlisted stocks

USE OF DERIVATIVES

Mutual fund managers are subject to strict regulatory controls regarding the use of derivatives—contracts whose value is based on the performance of an underlying asset, such as a commodity, a stock, a bond, a foreign currency, or an index. However, mutual fund managers are allowed to incorporate specific *permitted* derivatives as part of their portfolios. For example, options (such as puts or calls), futures, forwards, rights, warrants, and combination products are among the permitted derivatives that mutual fund managers can include.

Derivatives are most commonly used by mutual fund managers for two purposes: to hedge against risk and to facilitate market entry and exit. It is often cheaper and quicker to enter the market using derivatives rather than by purchasing the underlying securities directly.

EXAMPLE

A fund manager has experienced rapid growth in the value of her portfolio, but she is concerned that the market may fall. To protect

herself against a fall in value, she purchases put options on the iUnits S&P/TSX 60 Index Fund (i60s). If the market declines, any loss in the portfolio's value will be offset by an increase in the value of the put options.

Other managers may sell call options on shares they already own in order to enhance the fund's income. When fund managers deal internationally, they may use futures contracts as protection against changes in currency values.

One focus of NI 81-102 is to allow the use of derivatives to benefit investors by minimizing overall portfolio risk. At the same time, regulations seek to ensure that portfolio managers do not use derivatives to speculate with investors' money.

Derivatives regulation covers the following requirements:

- The total amount that can be invested in derivatives (10% maximum as a percentage of the net assets of a fund)
- How derivative positions must be hedged by the assets of the fund (based on daily portfolio valuations)
- Expiry dates on different option products
- Permitted terms
- The qualifications required by portfolio advisors to trade these instruments

Hedge funds are exempted from these rules. Another exception is alternative mutual funds, which are permitted to use derivatives in a leveraged manner for speculation. These products will be covered in a later chapter.

The use of permitted derivatives must be disclosed in a mutual fund's simplified prospectus. The disclosure must explain how they will be used to achieve the mutual fund's investment and risk objectives. It must also describe the limits of and risks involved with the planned use of derivatives.

PROHIBITED SELLING PRACTICES

As a mutual fund sales representative, or one considering that role, you should be aware of various sales practices that are prohibited by the regulators. Engaging in these and other types of unethical behaviour could lead to a loss of registration. Some sales practices that are prohibited are described below.

Quoting a future price	When an investor places an order to buy or sell a mutual fund, the price per unit or share the investor will pay or receive is not known. The purchase or sale price is based on the NAVPS on the next regular valuation date. Depending on the time of day on which the order is entered, the NAVPS may be priced at the end of the current business day or the end of the next business day. Mutual fund companies specify the time by which a trade must be entered to receive the closing price for the current business day. The general practice is to price orders entered before 4:00 p.m. ET at the end of the current business day. Orders received after 4:00 p.m. ET are priced at the end of the next business day. Consequently, it is unlawful for a representative to backdate an order in an attempt to buy or sell shares or units at a previous day's price.
Offer to repurchase	As a sales representative, you may not make offers to repurchase securities in an attempt to insulate your clients from downturns in price. Of course, investors have the normal right of redemption, should they wish to sell their mutual fund investments.
Selling without	You must be licensed in each province where

a licence	you intend to sell mutual funds, which requires registration with each provincial regulatory authority under which you intend to work. You must inform authorities of material changes in your personal circumstances that could affect your registration status. Furthermore, it is against the law to sell products you are not registered to sell. For example, as a mutual fund representative, you cannot sell stocks, bonds, or insurance in any province unless you are licensed to do so in that province.
Advertising the registration	You may not advertise or promote the fact that you are registered with a securities authority. Doing so could imply that regulatory authorities sanction your conduct or the quality of the funds you offer, which is not relevant.
Promising a future price	You may not make promises that a fund will achieve a known price in the future.
Sales made from one province into another province or country	Despite ease of electronic access to out-of-province investors, you may not fill orders, even **unsolicited orders**, unless you are registered in the investor's province. If you sell mutual funds to clients in a province in which you are not registered, or to a non-Canadian resident, your registration may be cancelled.
Sale of unqualified securities	Likewise, any mutual funds you sell must be approved in the province in which you are registered. It is forbidden to sell mutual funds that have not been approved by the provincial regulator. Fortunately, most mutual funds

available on the market are approved in every Canadian jurisdiction.

GUIDELINES AND RESTRICTIONS

Distributor firms and fund managers are also subject to guidelines and restrictions. Those guidelines indicate what the firms and managers are permitted to do. As a mutual fund sales representative, you need to consider the impact of the following prohibitions on your role:

- Fund managers may not provide money or goods to a distributor firm or its representatives in support of client appreciation.
- The commission rate on a fund cannot be changed unless the simplified prospectus for that fund is renewed. (However, the commission rate for a new fund may differ from commission rates set for already established funds.)
- Fund managers may not provide co-operative funds for practices that are considered general marketing expenses, such as general client mailings.
- Fund managers may not financially subsidize skill enhancement courses such as courses in effective communication or improving presentation skills development.
- Fund managers may not provide non-monetary benefits of any significant value to a distributor firm or its representatives. Occasional rewards of minimal value may be permitted if they are unlikely to influence the behaviour of the recipient (e.g., pens, t-shirts, or golf balls).

This list is not exhaustive. It is your responsibility as a mutual fund sales representative to be aware of what is and what is not allowed. The Investment Funds Institute of Canada publishes Sales Practices Bulletins, which interpret the rules and give examples of acceptable and unacceptable sales practices.

SALES COMMUNICATIONS

NI 81-102 and NI 81-105 outline specific guidelines with respect to sales communications. The following summary briefly describes these policies, but, as a mutual fund representative, you should be familiar with the entirety of both instruments. These rules apply commonly, whether the communication comes from the representative, the representative's firm, the fund's promoter, manager or distributor, or anyone who provides a service to the client with respect to the mutual fund. When in doubt, you should always consult with your branch manager or compliance officer. Their approval is needed before you send out any sales communications.

These guidelines apply to any type of sales communication, including advertising or any oral or written statements you make to a client.

Sales communications can include any of the following information:

- A description of the fund's characteristics
- A comparison between funds under common management or funds with similar investment objectives
- A comparison of the fund to an index
- Performance information (which must follow very specific rules with respect to how performance is calculated and presented)
- Advertising that the fund is a no-load fund

Any information or comparisons must include all facts that, if disclosed, would likely lead clients to certain conclusions or affect their decisions.

It is of paramount importance that the communication not be misleading. It cannot make an untrue statement, nor can it omit any information that, if omitted, would make the communication misleading. Additionally, it cannot present information in a way that

distorts that information. All information must agree with the information found in the simplified prospectus.

COMMUNICATING RATES OF RETURN TO CLIENTS

As with any communication delivered to the client, the expectation is that the client will be provided with “full, true, and plain disclosure”. This obligation extends to any communication that provides an annualized rate regarding a specific account or group of accounts. Such client communications must include a clear explanation of the method by which the rate of return was calculated. That method must be in accordance with standard industry practices.

DID YOU KNOW?

Standard industry practice with regard to calculating a rate or return includes a time-weighted or dollar-weighted return, daily valuation, or any method approved under the Global Investment Performance Standards, as endorsed by the Chartered Financial Analyst Institute.

For those client accounts that have been opened for less than 12 months, the rate of return shown must be the total rate of return since the account was opened at the mutual fund dealer. It is also expected that any client communication that contains, or makes reference to, a rate of return has been reviewed and approved by appropriate supervisory staff at the mutual fund dealer.

CLIENT ACCOUNT PERFORMANCE REPORTING

Along with rates of return, clients must be provided with information regarding the performance of their investments. As described under MFDA rule 5.3.4, the mutual fund representative must provide clients with an annual performance report that covers, at a minimum, a 12-month period.

Performance reports provided to clients must include the following information:

- The market value of the assets held in the client account at the beginning and end of the 12-month period covered by the report
- The total assets deposited and withdrawn during the 12-month period and since opening the account
- The annual change in the market value of the client's account for the 12-month period
- The cumulative change in the market value of the account since the account was opened
- Annualized total percentage return using a money-weighted methodology for periods of one, three, five and 10 years, as well as since inception.

Client communication that contains an annualized rate of return must be calculated according to standard industry practices. It must also provide a clear explanation of the method used to calculate the return.

The minimum threshold for account performance reporting is no less than yearly, and the report must cover, at a minimum, a 12-month period. Some mutual fund dealers elect to report on performance more frequently than the required minimum.

THE KNOW YOUR CLIENT RULE

7 | Describe the Know Your Client rule, Know Your Product requirements, and suitability.

Before accepting a client account, securities regulations require that mutual fund dealers and their sales representatives gather enough information about their client to ensure that the purchase of mutual

funds is suitable. This requirement is called the Know Your Client (KYC) rule.

To meet the KYC requirements as a mutual fund sales representative, you must take the following due diligence measures:

- Learn the essential facts about the client before opening an account, including age, net worth, earnings, and investment objectives.
- Learn the essential facts relevant to every order accepted and make sure that it is within the bounds of good business practice.
- Learn the circumstances behind each transaction.
- Make sure that your recommendations are appropriate for the client, based on factors such as the client's financial situation, investment knowledge, investment objectives, and risk tolerance.
- Maintain your client's account information and update it regularly as circumstances change.

Clients purchasing mutual funds must provide KYC information, whether or not they are acting on your recommendation. This information must be obtained for all persons who have trading authority for the account and any other person with a financial interest in the account.

To make sure all orders are suitable for the client, order forms may contain a KYC section. In some cases, the KYC form is a separate document that must be completed by the purchaser. For clients with multiple accounts, you should obtain separate KYC information for each account. The investment objectives, risk tolerance, and investment horizon of each account may differ.

Clients who refuse to provide the necessary information should be informed that its collection is required by law, and by all other mutual fund dealers. You should let your clients know that the KYC rule requirements are intended to benefit the client. You collect the information because it helps you choose an appropriate mutual fund to meet their investment needs and objectives.

If the client still refuses to provide KYC data, then you cannot process the transaction.

SUITABILITY AND KNOW YOUR PRODUCT

As set out under the KYC rule, among other responsibilities, mutual fund sales representatives must use due diligence in assessing the suitability of investments within each client's account. This responsibility extends to any of the following situations:

- The client transfers their account to the dealer.
- The dealer or mutual fund representative becomes aware of a material change in the KYC information.
- A different mutual fund representative has taken over the client's account.

MFDA rules require that mutual fund dealers and their sales representatives maintain an adequate record of each order and of all instructions, given or received, for the purchase or sale of mutual funds. This requirement holds whether or not the transaction is executed. Furthermore, the review must be completed within a reasonable period.

In addition to the initial suitability assessment, mutual fund representatives also have an ongoing responsibility to assess that the investments in the client account continue to be suitable. As such, you must maintain documented evidence of all suitability reviews and any follow-up action taken as a result of a review. It is also expected, under MFDA Policy No.2, *Minimum Standards for Account Supervision*, that a supervisor, branch manager, or branch compliance officer also perform a suitability review of the investments in a client's account. They must maintain evidence of that review and any follow-up action taken as a result of their review.

The suitability requirement applies to recommendations you make to a client, as well as to unsolicited orders. Unsolicited orders are orders for mutual funds that have not been recommended by the

representative; the request comes from the clients. Before accepting an unsolicited order, you must verify that the purchase is reasonable given the client's investment objectives, risk tolerance, investment horizon, and investment knowledge.

If you determine that the order is unsuitable for the client, you must advise the client of its unsuitability. If the client wishes to go against your advice, you must maintain the following details in the record of the order:

- Evidence that the transaction was unsolicited
- Proof that you performed a suitability review
- Clear indication that you advised the client that the proposed transaction was unsuitable

Before proceeding with an unsuitable, unsolicited trade, you should consult with your branch manager or compliance officer. Mutual fund dealers must have written procedures for dealing with unsuitable, unsolicited orders, and there should be no obligation to accept an unsuitable purchase order from a client.

The KYC rule provides a service to the client, the dealer, and the mutual fund dealer's representative. Having complete details of your client's financial positions, investment objectives, and risk tolerance allows you to determine whether your clients' investments are appropriate for them.

KNOW YOUR PRODUCT

In addition to meeting KYC obligations, representatives must fully understand the features of the products being recommended to clients. You must fully understand the characteristics of a fund, such as level of risk and investment objectives, before you can make suitable recommendations to your clients.

THE ROLE OF KYC INFORMATION IN OPENING AN ACCOUNT

Gathering KYC information is a critical part of the process of opening accounts and taking orders. During this process, you must obtain information about anyone with a financial interest in the account and information about any changes in the client's circumstances. You must also fulfil requirements related to anti-money laundering and anti-terrorist financing laws.

FINANCIAL INTEREST IN AN ACCOUNT

As a mutual fund dealer's representative, you should obtain the investment experience and knowledge of all persons with trading authority over the client's account, as well as KYC information for anyone with a financial interest in the account. Such persons may include joint account holders and beneficiaries of trusts or trust accounts for children.

A trustee has trading authority over the trust. Therefore, the trustee's investment experience and knowledge is essential information, as is the KYC information of the beneficial owner of the account.

DID YOU KNOW?

The contributing spouse of a spousal registered retirement savings plan has no financial interest in the account, so KYC information is required only for the non-contributing spouse. However, if the contributing spouse has another account with you, you must obtain KYC information in regard to that account.

CHANGES IN CIRCUMSTANCES

MFDA rules require that KYC information be updated whenever a representative or other employee of the firm becomes aware of a

material change in the client's circumstances. At least once a year, the dealer must request, in writing, that each client notify the dealer of any material change in his or her circumstances.

ANTI-MONEY LAUNDERING AND ANTI-TERRORIST FINANCING LAWS

Federal legislation regarding anti-money laundering (AML) and anti-terrorist financing (ATF) is set out in the *Proceeds of Crime (Money Laundering) and Terrorist Financing Act*. The Financial Transactions and Reports Analysis Centre of Canada (FINTRAC) is the agency authorized to facilitate this legislation.

AML and ATF requirements must be met before any client's account is opened. Every mutual fund dealer must have processes and procedures in place for this purpose, and it must provide appropriate training to all its employees and representatives. The firm must also appoint an AML compliance officer (often, the branch compliance officer).

AML and ATF processes generally focus on the need to verify the identity of every person authorized to provide instructions regarding a client's account or who has a beneficial interest in that account. Other procedures involve the freezing of accounts of individuals and organizations that appear on a FINTRAC-published list, the reporting of suspicious transactions and attempted transactions, and client identification requirements that apply in special circumstances.

Cash transactions (or a series of transactions) in a single account of $10,000 or more on any given day must be reported to the dealer's compliance officer.

REQUIREMENTS FOR OPENING AND UPDATING AN ACCOUNT

8 | Discuss the elements that must be included in the client

disclosure document, and the circumstances in which Know Your Client information requires an update.

The first step in ensuring compliance to the rules and policies that govern the mutual fund business is the accurate completion of documentation when new accounts are opened. Accurate and current account documentation provides the tools necessary to perform a suitability assessment of the investments in a client account.

RELATIONSHIP DISCLOSURE

For each new client account opened, securities regulation requires that the mutual fund dealer provide written relationship disclosure information to the client. The information may be provided in a stand-alone document or it may be included in the account opening documentation. The documentation should include any information that a reasonable client would consider important about the relationship between the client and the mutual fund dealer and its sales representative.

Regardless how the relationship disclosure information is provided to the client, it must include several key details described below.

The nature or type of client account	This section may include a statement confirming that the client is ultimately responsible for investment decisions made in the account, but that the client may rely on the investment advice provided by the representative.
The products and services offered	This section includes relevant product and services information. For example, it may state whether only proprietary (in-house) mutual funds are available, or whether third-party mutual funds may be held in the client account.

The procedures regarding the handling of cash and cheques	This section details how cash and cheques will be handled. For example, it may confirm that email transfers are an acceptable form of payment for services.
The dealer's obligation to the client	This section may state that the dealer is obliged to ensure that each order accepted or any recommendation made to the client is suitable. It may also advise that the representative remains responsible for ensuring suitability, even if the client provides investment direction.
The circumstances in which a suitability review is needed	Circumstances stated may include a client's transfer of assets to the dealer, a material change in the KYC information previously provided, or a change in the representative responsible for the client account.
The terms with respect to KYC information	This section may state how the information collected by the dealer will be used in assessing investments in the client account.
The terms of account reporting	This section may state the content and frequency of client reporting for the account.
The nature of compensation paid to the dealer	This section outlines how compensation is paid to the dealer. It may also refer to more specific fee information that can be found in the client account documentation or a similar type of agreement.

Relationship disclosure provided in a standardized document should be approved by the head or branch office (or both). Mutual fund dealers must also maintain evidence that relationship disclosure has been provided to the client. The disclosure information can be signed by the client and incorporated into account documentation, in which case a copy of the signed account documentation is sufficient evidence.

If the dealer chooses to provide relationship disclosure as a stand-alone document, it may ask the client for signed acknowledgment of receipt as evidence that it was delivered. Copies of the disclosure documents may be maintained in the client's file.

DID YOU KNOW?

As the representative, you should maintain detailed notes of client meetings and discussions as evidence that the relationship disclosure information was provided, even if you do not have a client-signed copy.

Whenever a significant change occurs in the relationship disclosure information, the dealer must take reasonable steps to notify the client of the change as soon as possible.

NEW ACCOUNTS

The first step in satisfying the KYC rule is to establish the client's account in accordance with both securities regulation and the mutual fund dealer's policies and procedures. Upon accepting a new client account, it must be reviewed and approved as soon as possible by the person responsible for approving new client accounts at the firm. Account numbers should not be assigned until the client's full legal name and address is confirmed.

A New Account Application Form (NAAF) must also be completed for each new client account. Typically, the NAAF includes the necessary

KYC information. If this information is not included in the NAAF, it must be captured on a separate form.

Regardless of how the KYC information is documented, it must include, among other things, the client's personal information, financial information, risk tolerance, and investment objectives. The last two items in particular should be precise enough to allow for an appropriate suitability assessment.

UPDATING CLIENT INFORMATION

For any material changes in an existing account, you must complete an updated KYC form. The account must also be re-approved by the proper authority. You must fully discuss all changes made to the KYC with the client. Material changes include the following items, among many other possible modifications:

- A change in risk tolerance level
- A new investment time horizon
- A new investment objective or objectives
- A material change in assets or income

A client signature, or other method to confirm client identity, should be in place at the mutual fund dealer to provide evidence of any change to the client's name, address, or banking information.

As the mutual fund sales representative, you are also expected to maintain evidence of client instructions regarding any material changes in their information. All such changes must be approved by the person responsible at the firm for approving new client accounts. MFDA rules require that the mutual fund dealer request in writing that each client notify them if their KYC information has materially changed. The request must be made at least annually. The date of the request and the date on which the client informs the representative of any changes to the KYC information must be recorded and maintained.

DISTRIBUTION OF MUTUAL FUNDS BY FINANCIAL INSTITUTIONS

Some rules apply specifically to the distribution of mutual funds by a financial institution (FI) such as a bank, trust company, insurance company, and loan company. The FI must observe the requirements described below for the distribution of mutual funds.

Control of registrant	An FI can sell mutual fund securities in its branches only through a corporation (i.e., dealer) that it controls directly or indirectly, or with which it is affiliated. The dealer must be registered in each province or territory in which the mutual fund securities are sold.
Registration of employees	Only registered mutual fund sales representatives can sell mutual funds.
Dual employment	Employees of an FI who engage in financial services activities can also become registered mutual fund representatives of the dealer. Registration allows them to sell mutual fund securities provided that dual employment is permitted by the legislation to which the FI is subject.
Conflicts of interest	Conflicts of interest can arise as a result of dual employment. For example, some FI employees may be compensated only on the basis of their sales of mutual fund securities. Such employees may be motivated to sell mutual funds to a client even when other products are more suitable. A conflict can also arise even when dually employed representatives are paid on a salary-only basis. For example, a representative with the

	authority to approve a client loan may do so to fund the client's mutual fund purchase. To address these concerns, dealers must have in place supervisory rules regarding potential conflicts arising from dual employment. The rules must be approved by the relevant provincial securities administrator, unless such rules make the following provisions: • Dually employed representatives are paid salary only, and one of the following two requirements also applies: ◦ A dually employed representative cannot make loans to finance purchases of mutual fund securities sold by that representative. ◦ Any loan made by a dually employed representative to finance the purchase of mutual fund securities sold by that representative must be approved by a senior lending officer of the FI.
In-house funds	Rules regarding the distribution of mutual funds by an FI are based on the assumption that the FI will distribute only in-house mutual fund securities. In other words, the securities sold through the FI must be issued by a mutual fund sponsored by the FI (or by the FI's subsidiary or affiliated dealer). If an FI wants to sell mutual fund securities sponsored by a third party, the relevant securities regulator must be consulted. The regulator will determine what amendments, if any, are needed to the rules regulating the sale of such securities.
Proficiency	Officers, directors, and representatives of the dealer must satisfy normal proficiency

	requirements, as set out by the applicable securities commission.
Premises and disclosure	The dealer must carry on its business in such a way that it is made clear to clients that the business of the dealer and the FI are separate and distinct. Separate premises within a branch are not required, although adequate disclosure of the distinction must be made to customers of the FI. The disclosures are intended to make it clear to clients of the FI that the mutual funds they purchased were purchased from a separate entity. Clients are further informed that those mutual funds are not guaranteed by the financial institution, are not covered by deposit insurance (e.g., the Canada Deposit Insurance Corporation), and may fluctuate in terms of value and returns. This disclosure must be printed in bold face type and must appear on the following documents: • *Fund prospectuses*: The disclosure must be contained in the body of prospectuses; on renewals, the disclosure must appear on the face page. • *Subscription or order forms*: If these forms are used, disclosure must appear on them. (Order forms may not be required for processing telephone transactions.) • *Confirmation slips* • *Promotional material*: The disclosure must appear on all promotional material appearing or handed out in any branch of the FI. The FI may lend money to a client to facilitate the purchase of mutual fund securities sold by the

dealer. The dealer must disclose to the client that the full amount of the loan must be repaid, even if the value of the mutual fund securities (purchased with the loan) declines.

Note: The Nova Scotia provincial securities administrator may require further details of such a loan.

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, we discussed the following key aspects of mutual fund structures and regulation:

- A mutual fund is an investment vehicle, operated by an investment company, that pools contributions from investors and invests these proceeds in a variety of securities, including stocks, bonds, and money market instruments. A professional money manager manages the fund and follows a particular investing style. Contributions from investors are pooled and invested in various asset classes according to the fund's policies and objectives.
- An open-end trust does not incur a tax liability. Any income flows through to the unitholder to be taxed in the hands of the holder based on the type of income the fund generates. Mutual funds can also be set up as federal or provincial corporations and can be eligible for a special tax rate.

- Mutual fund units are purchased directly from the fund company, usually through a distributor, and are sold back to the fund when redeemed. The offering price is the NAVPS, the price that the investor pays for one unit. The redemption price is the price shareholders receive when they redeem each unit. A front-end load is a percentage of the purchase price paid to a distributor at the time of purchase. No-load funds are sold with low to no direct percentage selling charges, although an administration fee may be charged. Back-end load funds levy a fee at redemption.
- The MFDA is the industry's SRO for the distribution of mutual funds. In Quebec, the mutual fund industry is the responsibility of the Autorité des marchés financiers and the Chambre de la sécurité financière. The regulation of Canadian mutual funds falls under the jurisdiction of the securities act of each province.
- Investors purchasing a mutual fund for the first time must be provided with the Fund Facts document, which provides key information about the fund in plain language. The simplified prospectus must be filed with the securities commission annually.
- Mutual fund managers, distributors, and sales personnel must be registered with the securities commissions in all provinces in which they operate (and with the Autorité des marchés financiers, if they operate in Quebec). Mutual fund sales registration must be renewed annually.
- Securities regulations and the KYC rule requires that dealers and their dealing representatives know the objectives, investment knowledge, time horizon, and risk tolerance of their clients. Investment recommendations must be based on the client's information and must be suitable for the particular client. Especially important is information about individuals with a financial interest in an account, information about changes in the client's circumstances, and requirements relating to AML and ATF laws.

- Relationship disclosure information is all the information that a reasonable client would consider important about his or her relationship with the mutual fund dealer and the mutual fund representative.
- Specific information must be included in the relationship disclosure document to ensure that each order accepted or any recommendation made is suitable. The relationship disclosure document includes a description of the nature or type of the account, a description of the products and services offered by the dealer and dealing representative, a description of the procedures at the dealer regarding the handling of cash and cheques, and a description of the dealer's obligations.

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 17 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 17 FAQs.

Mutual Funds: Types and Features 18

CHAPTER OVERVIEW

This chapter will discuss the features and risk characteristics of the various types of mutual funds. You will learn about the different fund management styles and strategies, and the theories behind them. You will also learn how to make appropriate recommendations, including price calculation, the various types of withdrawal plans, and the tax consequences of redemption. Finally, you will learn how mutual fund performance is measured and how to assess the performance of one fund against that of another.

LEARNING OBJECTIVES	CONTENT AREAS
1 | Compare and contrast the features of the different types of mutual funds.	**Types of Mutual Funds**
2 | Differentiate between the mutual fund management styles.	**Fund Management Styles**
3 | Calculate the redemption/selling price of a mutual fund. 4 | Explain the tax consequences of redemptions. 5 | Compare the features and benefits of the types of withdrawal plans.	**Redemption of Mutual Fund Units or Shares**
6 | Explain the process for measuring and comparing mutual fund performance.	**Measuring Mutual Fund Performance**

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

adjusted cost base

asset allocation funds

balanced funds

bond funds

closet indexing

daily valuation method

dividend funds

equity funds

fixed-dollar withdrawal plan

fixed-period withdrawal plan

glide path

index fund

life expectancy-adjusted withdrawal plan

Modified Dietz method

peer group

ratio withdrawal plan

right of redemption

systematic withdrawal plans

T3 form

T5 form

target-date funds

time-weighted rate of return

INTRODUCTION

When recommending a mutual fund investment to a client, there are many factors to consider before selecting from among the numerous types of funds available. Mutual funds can be categorized based on the types of investments held in the portfolio, the level of risk and reward, and the management style. You should be able to explain the various categories and the implications of choosing a particular fund. Two important factors to consider are the available methods of withdrawal and the tax implications.

But before, and after, you recommend a mutual fund, you must assess its performance against a benchmark. There are several methods to choose from to assess performance, and several factors to consider when choosing a benchmark. Canada has regulations regarding performance measures that make it easier to compare similar mutual fund investments.

In each mutual fund category, there are many individual funds to choose from. It is essential, therefore, that you be able to assess the risk and return characteristics of a particular fund so that you can make intelligent and well-informed recommendations.

TYPES OF MUTUAL FUNDS

1 | Compare and contrast the features of the different types of mutual funds.

Mutual funds are distinguished by either their basic investment policy or by the kind of assets they hold. The Canadian Investment Funds Standards Committee (CIFSC) groups Canadian-domiciled mutual funds into several categories, based on the types of assets under management:

- Money market funds
- Fixed-income funds
- Balanced funds
- Equity funds
- Commodity funds
- Specialty funds
- Target-date funds
- Alternative Funds

The different types of funds offer different risks and rewards to investors. When recommending funds to clients, you have the duty to match the appropriate fund with the particular needs of each client.

MONEY MARKET FUNDS

As their name implies, money market funds invest in the securities that trade in the money market. All assets in a money market fund are invested in cash, cash-equivalent securities, and short-term debt securities of an approved credit rating. Investments might include Treasury bills, bankers' acceptances, high quality corporate paper, and short-term bonds. Funds in this category include Canadian and U.S. funds.

Money market funds add liquidity to a portfolio. They also provide a small stream of income and relative safety of principal. They are considered the least risky type of mutual fund.

To comply with National Instrument 81-102, funds designated as money market funds must maintain a minimum weighting of 95% of their total net assets in cash or cash-equivalent securities.

A feature of these funds is a constant share (or unit) value, often $10. To keep their net asset value per share (NAVPS) constant, the net income of the fund is calculated daily and credited to unitholders. The earned interest is paid out as cash or reinvested in additional shares on a monthly (or sometimes quarterly) basis.

Although risk is low, money market funds, like all mutual funds, are not guaranteed. The main risk to these funds is interest rate risk. Fund managers try to maintain a stable NAVPS, but rapid increases in interest rates can reduce the value of the shares.

Distributions received from a money market fund are taxable as interest income when they are held outside of a registered plan. Investors must add the interest to their income and pay tax on that portion at their marginal rate.

FIXED-INCOME FUNDS

Fixed-income funds are designed to provide a steady stream of income and safety of principal, rather than capital appreciation. Funds in this category must invest at least 95% of their non-cash assets in fixed-income securities. This category includes the following fund types:

- Canadian short-term fixed income
- Canadian long-term fixed income
- Canadian inflation-protected fixed income
- Global fixed income
- High-yield fixed income

High-yield fixed-income funds invest in fixed-income securities with a non-investment-grade credit rating. Otherwise, all mutual funds in the fixed-income category invest primarily in high-quality government and corporate debt securities. Their degree of volatility is related to the degree of interest rate fluctuation. However, fund managers may attempt to change the duration of the portfolio and the mix of low- and high-coupon bonds to compensate for changes in interest rates.

Interest rate volatility is the main risk associated with this type of fund. Funds that invest in corporate bonds are also exposed to default or credit risk.

The primary source of returns from **bond funds** is interest income. The investor may also receive a capital gain if the fund sells some of its bonds at a profit.

BALANCED FUNDS

Balanced funds invest in both stocks and bonds to provide a balanced mix of income and capital growth. Some managers add value by shifting investment proportions in anticipation of market conditions. Otherwise, if diversification is the goal, investors can achieve the same effect by putting their money into more than one fund.

This category includes the following fund types:

- Canadian equity balanced
- Canadian neutral balanced
- Canadian fixed income balanced
- Global equity balanced
- Global neutral balanced
- Global fixed income balanced
- Tactical balanced

The main investment objective of these funds is, as the name implies, to provide a balanced portfolio of safety, income, and capital appreciation. Fixed-income securities provide stability and income, and a broadly diversified group of common stock holdings provide diversification, dividend income, and growth potential.

The balance between defensive and aggressive security holdings is rarely split evenly. Rather, managers of balanced funds adjust the percentage of each part of the total portfolio in accordance with current market conditions and future expectations. In most cases, the prospectus specifies the fund's minimum and maximum weighting for each asset class. For example, a balanced fund may specify a weighting of 60% equity and 40% fixed income.

According to the CIFSC, balanced funds can hold a range of 5% to 90% in equities and 10% to 95% in fixed-income securities.

Investors in balanced funds are subject to market and interest rate risk in varying degrees, depending on the split between fixed-income and equity securities. They may receive a combination of interest, dividends, and capital gains, and are taxed accordingly.

DID YOU KNOW?

Asset allocation funds have similar objectives to those of balanced funds, but they differ in that they typically do not have to hold a specified minimum percentage of the fund in any class of investment. The portfolio manager has great freedom to shift the portfolio weighting among equity, money market, and fixed-income securities as the economy moves through the different stages of the business cycle. These types of funds are subject to the risks and tax implications of balanced funds.

EQUITY FUNDS

The CIFSC divides **equity funds** into as many as 24 different subcategories, including the following fund types:

- Canadian, U.S., and global equity
- Canadian dividend
- Canadian and U.S. small- and mid-cap equity
- International, European, and emerging markets equity
- Asia Pacific equity
- Greater China equity
- Health care, precious metal, natural resources, and real estate equity

Funds in the equity category must invest a minimum of 90% of their non-cash assets in equity securities.

The main investment objective of equity funds is long-term capital growth. The fund manager invests primarily in the common shares of publicly traded companies. They may purchase short-term notes or other fixed-income securities from time to time in limited amounts for liquidity and, occasionally, income. The bulk of assets, however, are in common shares in the pursuit of capital gains. Because common share prices are typically more volatile than other types of securities, prices of equity funds tend to fluctuate widely. These funds are therefore considered riskier than other fund types.

As with common stocks, equity funds range greatly in degree of risk and growth potential. All equity funds are subject to market risk, and investments in markets outside of Canada are subject to foreign exchange rate risk.

Some equity funds are broadly diversified holdings of blue chip, income-yielding common shares. This type is classified at the conservative end of the equity fund scale. Other equity funds adopt a slightly more aggressive investment stance. For example, they may invest in emerging growth companies with the objective of above-average growth of capital.

Still other equity funds are more speculative; they aggressively seek capital gains at the sacrifice of safety and income. These funds invest in certain sectors of the market, such as precious metals, health care, and biotechnology, or in certain geographical locations, such as China, Latin America, and Japan.

The tax implications are the same as for any fund that holds equity securities. Distributions are in the form of capital gains and dividends and are taxed accordingly.

SMALL-CAP AND MID-CAP EQUITY FUNDS

Some Canadian equity funds limit investments to companies with capitalization below those of the hundred largest Canadian companies. These funds are considered to be small- to mid-cap Canadian equity funds. Smaller companies are considered to have higher potential for growth than large, well-established ones. These funds, therefore, offer opportunities that theoretically differ from general Canadian equity funds. Because these young companies tend to reinvest profits into expansion, they do not usually pay dividends.

Along with the potential for greater gains comes more volatility than is typically experienced with equity funds that invest in mature blue-chip equities. Distributions in this type of fund are usually in the form of capital gains.

DIVIDEND FUNDS

Canadian **dividend funds** provide tax-advantaged income with some possibility of capital appreciation. Dividend funds invest in preferred shares as well as high-quality common shares, with a history of

consistently paying dividends. The income from these funds is in the form of dividends, which have the tax advantage of receiving the dividend tax credit. There may be capital gains as well.

The price changes that lead to capital gains or losses on dividend funds are driven by changes in interest rates and general market trends. They are thus subject to both interest rate risk and market risk. Price changes in the preferred share component of these funds are driven by interest rate changes. General upward or downward movements in the stock market most heavily affect the common share component. As discussed earlier in this course, preferred shareholders rank ahead of common shareholders, but below bondholders, in the event of bankruptcy or insolvency. Consequently, dividend funds are considered riskier than bond funds, but less risky than equity funds.

COMMODITY FUNDS

The funds that fall under the commodity grouping must either invest in physical commodities or gain exposure to commodities through the use of derivatives. The exposure to commodities is primarily long and must not exceed 100% by way of leverage.

SPECIALTY FUNDS

Specialty funds are narrowly focused funds that do not fit easily into any of the broader categories defined above. They concentrate their assets into one main area, such as a specific industry or region. This category includes the following fund types:

- Retail venture capital
- Alternative strategies
- Miscellaneous, including:
  - Income and real property
  - Leveraged
  - Geographic
  - Sector

Specialty funds seek capital gains and are willing to forgo broad market diversification in the hope of achieving above-average returns. Because of their narrower investment focus, these funds often carry substantial concentration risk.

Specialty funds offer some diversification when combined with other fund types in a portfolio. However, they are vulnerable to swings in the industry in which they specialize or, if they have a portfolio of foreign securities, in currency values. Many, but not all, specialty funds tend to be more speculative than most types of equity funds.

TARGET-DATE FUNDS

Target-date funds (also called *target-based funds* or *life-cycle funds*) are structured on the assumption that risk tolerance declines as investors grow older. These funds have two characteristics that distinguish them from other mutual funds—a target date and a **glide path**—which are described as follows:

- The target date (i.e., the maturity date) is a date set by the investor to match a certain life goal. The date of retirement is a common target date.
- The glide path refers to changes in the fund's asset allocation mix over time. The fund pursues a growth strategy in its early years by holding more risky assets. It then gradually moves towards less risky assets as the target date approaches. The fund manager adjusts the fund over time, without any action required from the fund holder.

Target-date funds have their own category under the CIFSC classification. Upon maturity, they are moved out of the target-date group and included in the appropriate fixed-income or balanced fund category.

EXAMPLE

Your client Angela plans to retire in 2030. In 2020, she bought a 2030 target-date fund. At the time of purchase, the fund's asset allocation was 70% equity and 30% fixed income in the early years and will change over time to gradually lower its risk level. By the 2030 target date, Angela's fund will have an allocation mix of 20% equity and 80% fixed income.

ALTERNATIVE FUNDS

Introduced as a category in 2019, funds in the Alternative Funds category employ alternative strategies such as short selling or other forms of leverage that the typical mutual fund is not permitted to use. Funds in this category may use speculative as well as hedging strategies. Funds that do not issue a simplified prospectus will not be ranked with the funds in this category. Subcategories include Alternative Equity Focused, Alternative Credit Focused, Alternative Multi-Strategy, Alternative Market Neutral and Alternative Other. The Alternative Other category includes those funds that employ a unique strategy that does not fit into any of the other subcategories. More information on alternative funds can be found in Chapter 20 and 21.

INDEX FUNDS

An **index fund** sets out to match the performance of a broad market index, such as the S&P/TSX Composite Index (for an equity index fund) or the FTSE Canada Universe Bond Index (for a bond index fund). Index funds are not specifically listed in these categories; instead, they are categorized under the type of asset class they tend to replicate.

EXAMPLE

ABC Fund replicates the FTSE Canada Universe Bond Index. This fund is categorized as Fixed-Income Fund—Canadian Fixed Income.

The index fund manager invests in the securities that make up the model index, in the same proportion that these securities are weighted in the index.

EXAMPLE

DEF Fund replicates the S&P/TSX Composite Index, and the Bank of Montreal represents 0.75% of that index. DEF Fund must therefore include 0.75% of Bank of Montreal stock.

Overall, the management fees associated with index funds are usually lower than those of other equity or bond funds. Investing in an index fund is therefore a low-cost way for an investor to pursue a passive investment strategy.

The investment objective of an equity index fund is to provide long-term growth of capital. These funds are subject to market risk because the portfolio is tied to the performance of the market. With a bond index fund, the main risk is interest rate risk.

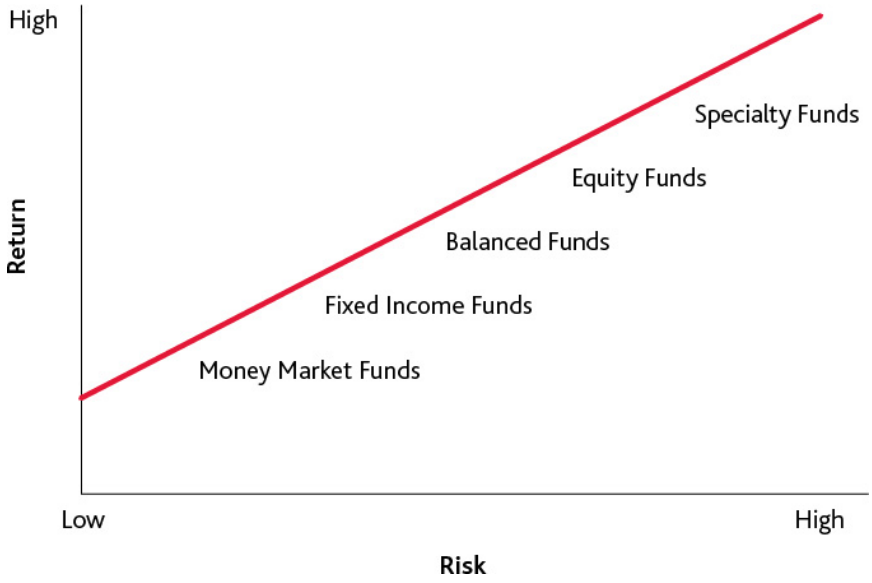
The distributions of an index fund depend on the type of index being matched. For example, the income of a fund matching a bond index will be primarily interest, with some capital gains. An index fund matching an equity index, on the other hand, may have dividend and capital gains distributions.

COMPARING FUND TYPES

The variety of funds provided by the mutual fund industry are designed to meet the diverse needs of the Canadian investing public. Because each fund category holds different types of securities and pursues different investment objectives, the risk and return between the various funds also differ.

Figure 18.1 illustrates the risk-return trade-off between the different categories of mutual funds. Note: Target-date funds are not included in the diagram because the risk profile of this type of fund changes over its lifetime, and commodity funds and alternative funds are not included because of the various investment methods employed.

Figure 18.1 | Risk and Return Between Different Types of Mutual Funds



DID YOU KNOW?

There can be a large range of risk-return profiles within the same fund category. For example, consider two typical equity funds: a Canadian dividend fund and an emerging markets equity fund. The risk profile of the dividend fund may be significantly lower than that of the emerging markets fund.

FUND MANAGEMENT STYLES

2 | Differentiate between the mutual fund management styles.

The absolute and relative return of a portfolio can be attributed first to the choice of asset class, and second to the style in which it is managed. To measure fund performance, you must understand the investment style of its manager. Managers employing a particular strategy may outperform or underperform others using a different strategy over the same periods.

Management style falls into either of two broad categories: passive and active.

A passive investment strategy involves some form of indexing to a market or a customized benchmark. An active investment strategy, in contrast, is designed to outperform the market benchmarks. Overall,

funds that follow a passive strategy report lower management expense ratios than funds that pursue an active strategy.

Most equity styles of management are active. At any one time, several of many different active investment styles may be in favour or out of favour. Active management may involve individual company selection, over-weighting in favoured segments of industry sectors, or country selection for regional funds.

The various equity and fixed-income manager styles that we discussed in previous chapters also apply to mutual funds.

As an example, if you consider yourself an active investor, you might diversify your portfolio using a mix of growth and value investments. The same strategies hold true when investing in mutual funds. You could diversify your portfolio of mutual funds by holding both a value mutual fund and a growth mutual fund. You can then reduce volatility while maintaining an opportunity for higher returns than the returns of the market as a whole.

INDEXING AND CLOSET INDEXING

Indexing and **closet indexing** are two passive styles that some mutual fund managers apply to their investment strategy. There are advantages and disadvantages to both of these styles.

Indexing is a passive style of investing in securities that constitute or closely replicate the performance of a market benchmark such as the S&P/TSX Composite Index or the S&P 500 Composite Index. The indexing style is a low-cost, long-term, buy-and-hold strategy, with no need to conduct individual securities analysis. Many index funds, particularly those that provide foreign exposure, rely on a combination of stock index futures and Canadian Treasury bills.

Closet indexing does not replicate the market exactly, but sticks fairly closely to the market weightings by industry sector, by country or region, or by average market capitalization. Some active managers are closet indexers. Their style can be determined by how closely their returns, volatility, and average market capitalization correspond to the index as a whole.

The concept of index funds is generally simpler for investors to understand than other management styles: the funds simply buy the same stocks as the index. Because they do not need analysts for stock selection, management fees are lower than for actively managed funds. A final advantage is that indexing makes for low portfolio turnover, which is an advantage for taxable accounts.

Because the indexing style is essentially a strategy that mirrors the market, the opportunity to outperform the market is lost. Another disadvantage is that, after the payment of fees and expenses, index mutual funds return somewhat less than the market benchmark in the long term. A further disadvantage of this style is that distributions in the form of derivative-based income are taxable as income rather than as capital gains.

REDEMPTION OF MUTUAL FUND UNITS OR SHARES

3 | Calculate the redemption/selling price of a mutual fund.

4 | Explain the tax consequences of redemptions.

5 | Compare the features and benefits of the types of withdrawal plans.

After acquiring shares or units in a mutual fund, the investor may wish to dispose of them and use the proceeds. The mechanics of disposing of fund units are fairly straightforward.

For example, to redeem your client's mutual fund units would require the following three steps:

1. The client contacts you and asks to sell or redeem fund units.

2. You then place the trade request with the fund or the fund's distributor through your dealer.
3. At the end of the valuation day, the fund calculates the net asset value, and the proceeds are sent to the investor.

Most funds also allow investors to redeem shares or units over time using various systematic withdrawal methods, which we will discuss later in this chapter. However, there are several tax consequences of redemption that you need to consider first.

TAX CONSEQUENCES OF REDEMPTION

Mutual funds redeem their shares on request at a price that is equal to the fund's NAVPS. If there are no back-end load charges or deferred sales charges, the investor receives the NAVPS amount. Otherwise, the investor receives the NAVPS amount less the sales commission. Mutual funds can generate taxable income in one of two ways:

- Through the distribution of interest income, dividends, and capital gains realized by the fund
- Through any capital gains realized when the investor sells the fund

DID YOU KNOW?

Transactions that occur *within* a fund (such as the buying and selling of individual stocks or bonds) could result in income distributions to fund investors, such as a capital gain, in the year the distribution occurs.

On the other hand, when mutual fund investors sell their shares of a fund, they simply receive the cash. Because such transactions do not occur within the fund, any capital gain realized results from the investor's action, not a transaction within the fund itself.

ANNUAL DISTRIBUTIONS

When mutual funds are held outside a registered plan such as a registered retirement savings plan or a registered retirement income fund, the fund holder is sent either a **T3 form** (for unitholders) or a **T5 form** (for shareholders). Both tax forms report the types of income distributed that year: foreign income and Canadian interest, capital gains, and dividends, including dividends that have been reinvested. Each type of income is taxed at the fund holder's personal rate in the year received.

EXAMPLE

Lewis purchases an equity mutual fund for $11 per share. In each of the next five years, he receives $1 in annual distributions per share, composed of $0.50 in dividends and $0.50 in distributed capital gains. Each year, Lewis receives a T5 from the fund indicating that he must report to the Canada Revenue Agency an additional $1 per share in income. The T5 may indicate offsetting dividend tax credits (from dividends earned from taxable Canadian corporations).

It is sometimes difficult for mutual fund clients to understand why they have to declare capital gains when they have not sold any of their funds. There is, however, a simple explanation: the fund manager buys and sells stocks throughout the year for the fund. If the manager sells a stock for more than it was bought, the capital gain that results is passed on to the fund holder. Capital losses, however, cannot be passed on. Instead, they are held in the fund and may be used to offset capital gains in subsequent years.

CAPITAL GAINS

When a fund holder redeems the shares or units of the fund itself, the transaction is considered a disposition for tax purposes. As such, it could give rise to either a capital gain or a capital loss. Only 50% of net capital gains is added to the investor's income and taxed at their marginal rate. (Net capital gains is equal to total capital gains less total capital losses.)

EXAMPLE

Suppose a mutual fund shareholder buys shares in a fund at a NAVPS of $11 and later sells them at a NAVPS of $16. The sale generates a capital gain of $5 per share. The investor must therefore report an additional $2.50 per share in income for the year (calculated as 50% × $5 capital gain). This capital gain is not shown on the fund's T5 form because the sale was not a fund transaction.

DISTRIBUTIONS TRIGGERING UNEXPECTED TAXES

Throughout the year, mutual funds generate capital gains and losses when they sell securities. Distribution of capital gains follows the same schedule as interest and dividends. If the distribution of capital gains is carried out only at year end, it can pose a problem for investors who purchase a fund close to the end of the year.

EXAMPLE

Consider an investor with a marginal tax rate of 40% who purchases an equity mutual fund through a non-registered account on December 1 at a NAVPS of $30. This fund had a very good year and earned capital gains of $6 per share. These capital gains are distributed to the investors at the end of December, either as reinvested shares or as cash. As is the case with all distributions, the NAVPS falls by the amount of the distribution, in this case to $24.

The NAVPS of the investor's portfolio after the distribution is calculated as follows:

$30.00 – $6.00 = $24.00

At first glance, you might think that the investor is just as well off, given that the new NAVPS plus the $6 distribution equals the original NAVPS of $30. Unfortunately, the $6 distribution is taxable in the hands of the investor, even though it was earned over the course of the full year.

Assuming that the $6 was a net capital gain, the tax consequences are calculated as follows:

50% × $6.00 × 40% (marginal tax rate) = $1.20 taxes payable per share

Because of the tax implications, some investment advisors caution their clients against buying a mutual fund just before year end. They should first check with the fund sponsor to determine whether a capital gains distribution is pending.

ADJUSTING THE COST BASE

A problem may arise when an investor chooses to reinvest fund income automatically in additional, non-registered fund units. When the fund is sold, the capital gain must be calculated on the difference between the original purchase price and the sale price. The total sale price of the fund includes the original units purchased plus those units purchased over time through periodic reinvestment of fund income.

This mix of original and subsequent units can make it difficult to calculate the **adjusted cost base** of the investment in the fund. The adjusted cost base refers to the total cost of purchase plus commission expenses. If careful records have not been kept, the investor could be taxed twice on the same income. Many investment funds provide this information on quarterly or annual statements. If these statements are not kept, it can be very time consuming to attempt to reconstruct the adjusted cost base of the investment.

EXAMPLE

Maryam buys $10,000 of fund units. Over time, annual income is distributed and Maryam pays tax on it, but she chooses to reinvest the income in additional fund units. Several years later, the total value of her portfolio rises to $18,000 and Maryam decides to sell the fund.

An uninformed observer might assume that Maryam has incurred a capital gain of $8,000. However, the $8,000 increase is actually made up of two parts: a capital gain and the reinvestment of income on which she has already paid tax.

To arrive at the adjusted cost base, the portion of the increase from reinvestment must be added to the original investment of $10,000. The capital gain is calculated on this adjusted cost base. Suppose, for example, that Maryam had received a total of $3,500 in reinvested dividends over the course of the holding period. The adjusted cost base would then be $13,500 (the original $10,000 plus the $3,500 in dividends that have already been taxed). The capital gain is then $4,500, rather than $8,000.

TAX CONSEQUENCES

What are the tax consequences when distributions from a mutual fund are automatically reinvested? *Complete the online learning activity to assess your knowledge*.

REINVESTING DISTRIBUTIONS

Many funds, unless otherwise advised, automatically reinvest distributions into new shares at the prevailing net asset value, without a sales charge on the shares purchased. Most funds also have provisions for shareholders to switch from cash dividends to dividend reinvestment, and vice versa.

The reaction of the NAVPS to a distribution of funds is similar to that of a stock the day it begins to trade ex-dividend. The NAVPS falls by an amount proportionate to the dividend. Because most investors receive their dividends in the form of more units rather than cash, the net result of the distribution is that the investor owns more units, but the units are each worth less.

For example, assume that on the day before a dividend distribution, a fund of $9,000,000 has 1,000,000 units outstanding. The NAVPS of the fund is therefore $9.00 (calculated as $9,000,000 ÷ 1,000,000 = $9.00). The fund decides to pay a dividend of $0.90 per unit (for $900,000 in total), bringing the value of the fund to $8,100,000. The NAVPS after the distribution is therefore $8.10 (calculated as $8,100,000 ÷ 1,000,000 = $8.10).

Table 18.1 shows the impact of the distribution on the total net assets of the fund.

Table 18.1 | Impact of a Distribution on Total Net Assets

	Before Distribution	After Distribution	After Distributions Are Reinvested
Assets			
Portfolio	$8,075,000	$8,075,000	$8,075,000
Cash	950,000	50,000*	950,000
Liabilities			
Expenses	(25,000)	(25,000)	(25,000)
Total Net Assets	$9,000,000	$8,100,000	$9,000,000

* Distributions payable: $950,000 cash – ($0.90 dividend × 1,000,000 units outstanding).

Because the investors receive their distribution in new units, the fund now has 1,111,111.11 units worth $8.10 each (calculated as $900,000 ÷ $8.10 = 111,111.11, plus the original 1,000,000 units). Total fund assets are still $9,000,000. These assets never actually leave the company; they are reinvested in the fund.

As a result, the investor ends up with more units worth less each. As Table 18.2 illustrates, the net effect is that the investor's portfolio is worth the same amount. An investor who owns 1,000 units of the fund would receive a distribution worth $900.00 (calculated as 1,000 units × $0.90), which is invested into new units. These new units now have a NAVPS of $8.10. The investor would receive $900 ÷ $8.10 = 111.11 units. The investor now has a total of 1,111.11 units (calculated as 1,000 + 111.11).

Table 18.2 | Impact of a Distribution on Value of Investment

	Before Distribution	After Distribution
1,000 units × $9.00	$9,000	
1,111.11 × $8.10		$9,000

Those who are new to mutual funds often wonder if there is value in reinvesting distributions into an investment that doesn't seem to change much over time. The following example demonstrates that value, and the power of reinvested distributions.

EXAMPLE

Assume that Martha purchases a no-load mutual fund with $10,000 when the mutual fund units trade at $10. At the end of the year, any distribution is used to purchase additional units at the year-end price. Table 18.3 demonstrates how Martha's investment grows (excluding taxes), even though the unit price of the mutual fund seems to change very little over time.

Table 18.3 | Investment Growth Despite Little Change in Price

	Beginning Unit Price	Units Owned	Year-End Price Before Distribution	Distribution	Year-End Price After Distribution	New Units Purchased
Year 1	$10.00	1,000	$11.50	$1.00 per unit	$10.50	95.24*
Year 2	$10.50	1,095.24	$12.00	$1.00 per unit	$11.00	99.57
Year 3	$11.00	1,194.81	$11.50	$1.00 per unit	$10.50	113.79
Year 4	$10.50	1,308.60				

At the end of Year 3, after the $1.00 per unit distribution was reinvested at a price of $10.50, she would be left with a total of 1,308.60 units. Her investment value would be $13,740.26 (calculated as $10.50 per unit × 1,308.60 = $13,740.26). So even though the price per unit doesn't appear to have changed much in the past three years, Martha's investment in the fund has grown considerably.

* With the $1,000 distribution, Martha purchases 95.24 units at $10.50 per unit (calculated as $1,000 ÷ $10.50 per unit = 95.24 units).

WITHDRAWAL PLANS

A mutual fund's shareholders have a continual right to withdraw their investment in the fund simply by making the request to the fund itself. In return, they receive the dollar amount of their net asset value. This characteristic is known as the **right of redemption** and it is the hallmark of mutual funds.

Withdrawal plans have evolved to meet the needs of investors who require regular income and tax efficiency, and who do not want to withdraw their entire investment in a lump sum. Retiring and retired investors most commonly fit this profile. To meet their needs, many funds offer one or more **systematic withdrawal plans.** In simple terms, rather than withdrawing the entire amount at once, the investor instructs the fund to pay out part of the capital invested, plus distributions, over time. Withdrawals may be arranged monthly or quarterly, or at other predetermined intervals.

If the fund invests its assets successfully, the increased worth of its shares helps offset the reduction of principal that results from withdrawals. However, if the investment decreases in value, the investor's entire investment may be extinguished earlier than expected. This is a real risk that must be explained to investors contemplating withdrawal plans.

RATIO WITHDRAWAL PLAN

With a **ratio withdrawal plan,** the investor receives an annual income from the fund by redeeming a specified percentage of fund holdings each year. The percentage chosen for redemption usually falls between 4% and 10% per year, depending on the amount of income the investor requires. Obviously, the higher the percentage, the more rapid the rate of depletion of the investor's original investment. And, because the payout is a set percentage of the value of the fund, the amounts may vary each time.

Table 18.4 shows an example of a ratio withdrawal plan. We have assumed in this scenario, and each of the examples that follow, that the portfolio will grow by a steady 8% per year. In this example, we have also assumed that the investor wishes to withdraw 10% at the beginning of each year.

Table 18.4 | Ratio Withdrawal Plan

The value of each withdrawal will vary from year to year.

	Value at Beginning of Year			Value of Withdrawal				Value at End of Year
Year 1	$100,000	×	10%	= $10,000	($90,000	× 1.08	=	97,200)
Year 2	$97,200	×	10%	= $9,720	($87,480	× 1.08	=	94,478)
Year 3	$94,478	×	10%	= $9,448	($85,030	× 1.08	=	91,833)
Year 4	$91,833	×	10%	= $9,183	($82,650	× 1.08	=	89,262)
Year 5	$89,262	×	10	= $8,926	($80,336	× 1.	=	86,763)

		%				0 8	

FIXED-DOLLAR WITHDRAWAL PLAN

A **fixed-dollar withdrawal plan** is similar to a ratio withdrawal plan except that the fund holder chooses a specified dollar amount to be withdrawn on a monthly or quarterly basis. Funds offering this type of plan often require that withdrawals be in *round amounts* (e.g., $50 or $100). If the investor's fixed withdrawals are greater than the growth of the fund, the withdrawals will encroach upon the principal.

Table 18.5 shows an example of a fixed-dollar withdrawal plan. In this case, a fixed amount of $10,000 is withdrawn at the beginning of each year.

Table 18.5 | Fixed-Dollar Withdrawal Plan

	Value at Beginning of Year		Value of Withdrawal				Value at End of Year
Year 1	$100,000	–	$10,000	($90,000	× 1.08	=	$97,200)
Year 2	$97,200	–	$10,000	($87,200	× 1.08	=	$94,176)
Year 3	$94,176	–	$10,000	($84,176	× 1.08	=	$90,910)
Year 4	$90,910	–	$10,000	($80,910	× 1.08	=	$87,383)
Year 5	$87,383	–	$10,000	($77,383	× 1.08	=	$83,574)

FIXED-PERIOD WITHDRAWAL PLAN

With a **fixed-period withdrawal plan**, a specified amount is withdrawn over a pre-determined period with the intent that all capital will be exhausted when the plan ends.

Table 18.6 shows an example of a fixed-period withdrawal plan where the investor has decided to collapse the plan over five years. In this case, a specific fraction is withdrawn at the beginning of each year.

Table 18.6 | Fixed-Period Withdrawal Plan

Value at	Percentage of	Value of	Value at

	Beginning of Year		Capital Withdrawn		Withdrawal				End of Year
Year 1	$100,000	×	20%	=	$20,000	($80,000	× 1.08	=	86,400)
Year 2	$86,400	×	25%	=	$21,600	($64,800	× 1.08	=	69,984)
Year 3	$69,984	×	33.3333%	=	$23,328	($46,656	× 1.08	=	50,388)
Year 4	$50,388	×	50%	=	$25,194	($25,194	× 1.08	=	27,209)
Year 5	$27,209	×	100%	=	$27,209				$0

LIFE EXPECTANCY-ADJUSTED WITHDRAWAL PLAN

A **life expectancy-adjusted withdrawal plan** is a variation of a fixed-period withdrawal plan. Withdrawals are designed to deplete the entire investment by the end of the plan, while providing as high an income as possible during the plan holder's expected lifetime. The amount withdrawn on each date is based on periods that are continually readjusted to the changing life expectancy of the plan holder. Readjustments are based on mortality tables. Therefore, the amounts withdrawn vary in relation to the amount of capital remaining in the plan and the plan holder's revised life expectancy.

Table 18.7 shows an example of a life expectancy-adjusted withdrawal plan. Based on actuarial tables, it is assumed in this scenario that the client is currently age 75 and is expected to live to age 85.

Table 18.7 | Life Expectancy-Adjusted Withdrawal Plan

$$\frac{\text{Value of the Portfolio}}{\text{Life Expectancy} - \text{Current Age}}$$

	Value at Beginning of Year			Value of Withdrawal				Value at End of Year
Year 1	$100,000	$\frac{\$100,000}{85-75}$	=	$10,000	($90,000	× 1.08	=	$97,200)
Year 2	$97,200	$\frac{\$97,200}{85-76}$	=	$10,800	($86,400	× 1.	=	$93,312)

						0 8		
Year 3	$93,312	$\frac{\$93,312}{85-77}$	=	$11,664	($81,648	× 1.08	=	$88,180)
Etc.								

SUSPENSION OF REDEMPTIONS

As with all rules, there are exceptions. Securities commissions require all Canadian mutual funds to make payment on redemptions within a specified time; however, redemption suspensions are permitted in rare cases. Almost all funds reserve the right to suspend or defer a shareholder's privilege to redeem shares, if necessary. For example, a suspension might be invoked if normal trading is suspended on securities that represent more than 50% of securities owned by the fund. Obviously, if the fund cannot determine the NAVPS, it cannot determine the redemption price of a unit or share.

MEASURING MUTUAL FUND PERFORMANCE

6 | Explain the process for measuring and comparing mutual fund performance.

Mutual fund investors must be able to measure the performance of their fund over specific evaluation periods. Only by doing so can they tell how well the fund's manager has done over that period relative to the cost of management.

The tools and techniques used to measure performance judge their historical performance, either in isolation or in comparison to other mutual funds. Although past performance is never a guarantee of future performance, it can reveal certain historical trends or attributes that offer some insight into future performance.

Performance data is freely available from several sources: the mutual fund companies themselves, independent research firms such as Morningstar and Globe Investor, and monthly reports in national newspapers. Morningstar, Globe Investor, and other publications and firms also offer more in-depth research and analysis for a fee.

READING MUTUAL FUND QUOTES

Many financial sources report the current net asset values of mutual funds on either a daily or weekly basis. The financial press sometimes includes simple and compound rates of return, the volatility of each fund, the expense ratio, and the maximum sales or redemption charge of each fund.

Table 18.8 shows a typical quotation for a mutual fund that traded in the last 52-week period.

Table 18.8 | Reading Mutual Fund Quotations

			Friday Data				**Rate of Return**				**Weekly D**		
High	Low	Fund	Vty	Cls	$chg	%chg	1mo	1yr	3yr	5yr	High	Low	Cls
16.73	14.50	ABC Growth	4	16.62	–.06	–.36	4.0	6.3	10.0	7.9	16.73	16.62	16.62

The quotation shown in Table 18.8 may vary in format among financial sources. Though complex, it is very useful. It shows the following information:

- The NAVPS of the fund ABC Growth has traded as high as $16.73 per share and as low as $14.50 during the last 52 weeks.
- *Vty* is a measure of fund volatility (i.e., the variability in returns over the previous three-year period compared with other funds in this asset class). The scale is from 1 to 10. Funds with a Vty of 1 have the lowest variability in returns; funds with a Vty of 10 have the highest variability in returns.
- During the day under review, ABC Growth closed at a NAVPS of $16.62. The fund closed down $0.06 from the previous trading day, representing a –0.36% fall over the previous day.
- ABC Growth had a one-month rate of return of 4%, a one-year rate of return of 6.3%, a three-year rate of return of 10% and a five-year rate of return of 7.9%. The rate of return assumes that all dividends have been reinvested in the fund.
- Over the previous week, ABC Growth traded at a high of $16.73 and at a low of $16.62, finally closing at a NAVPS of $16.62, for a dollar increase of $0.01 and a percentage increase of 0.06% from the previous week.

The performance of money market funds is presented somewhat differently. Because of the relatively fixed NAVPS that these funds maintain, financial sources generally do not report the NAVPS. Instead, they report each fund's current and effective yield. The current yield reports the rate of return on the fund over the most recent seven-day period expressed as an annualized percentage. The effective yield is the rate of return that would result if the current yield were compounded over a year, thereby allowing comparison with other types of compounding investments.

In following the performance of a fund in the financial media, you should be aware that dividends and interest earned by the fund's investments are distributed periodically. Many investors use these distributions to automatically purchase additional units in the fund. When distributions are made, the NAVPS is decreased by the amount of the distribution, which can be disconcerting for investors. You should explain to your clients that, under automatic reinvestment plans, the distributions are used to purchase additional shares. Therefore, your clients are just as well off as they were before the distribution decreased the NAVPS.

MEASURING MUTUAL FUND PERFORMANCE

Performance is measured by calculating the return realized by a portfolio manager over a specified time interval called the *evaluation period*.

The most frequently used method to measure mutual fund performance is to compare NAVPS at the beginning and at the end of the period. Usually, this method is based on several assumptions, including the assumption that all dividends are reinvested. The increase or decrease at the end of the period is then expressed as a percentage of the initial value.

EXAMPLE

Beginning NAVPS = $19.50

Ending NAVPS = $21.50

Gain = 10.26%, calculated as [($21.50 – $19.50) ÷ $19.50] × 100 = 10.26%

This calculation assumes that the investor made no additions to, or withdrawals from, the portfolio during the evaluation period. If funds were added or withdrawn, then the result may be inaccurate.

TIME-WEIGHTED RATE OF RETURN

When you are measuring the return on a mutual fund, it is important to minimize the effect of investor contributions and withdrawals because they are beyond the control of the portfolio manager. You can do this by using a **time-weighted rate of return** (TWRR), which measures the actual rate of return earned by the portfolio manager.

The TWRR is calculated by averaging the return for each sub-period in which a cash flow occurs to create a return for the reporting period. Therefore, unlike a total return, it does account for cash flows such as deposits, withdrawals, and reinvestments.

Methods of calculating a time-weighted return include the **daily valuation method** and the **Modified Dietz method**.

Daily valuation method	With this method, the incremental change in value from day to day is expressed as an index from which the return can be calculated. This method is beneficial for mutual funds, which generally calculate NAVPS daily. It greatly simplifies their return calculation at the end of the month. The main drawback is the need to value the portfolio every day. It can be difficult to price the daily market value of such assets as real estate, mortgage-backed securities, and illiquid issues.
Modified Dietz method	This method reduces the extensive calculations of the daily valuation method by providing a good approximation. It assumes a constant rate of return through the period, eliminating the need to value the portfolio on the date of each cash flow. The Modified Dietz method weights each cash flow by the length of time it is held in the portfolio.

STANDARD PERFORMANCE DATA

Canadian regulators have instituted standard performance data that specify the minimum return measures that mutual fund companies must include, and how they are to be calculated. These measures ensure that mutual fund returns are comparable across different funds and fund companies. When they are presented in sales communications, they must be printed as prominently as any other performance data that the mutual fund company provides.

For mutual funds other than money market funds, standard performance data include compounded annual return periods of one, three, five, and 10 years, as well as the total period since inception of the fund. For money market funds, the standard performance data include the current yield and the effective yield.

In the role of a mutual fund advisor, you should look at periods of three to five years or more, as well as individual years. Nevertheless, it is reasonable to ask questions if the fund is significantly different from the average in its category. Always keep in mind, however, that past performance is not indicative of future performance.

DID YOU KNOW?

There is no single appropriate time horizon for rating risks and returns, and the practices of industry analysts vary considerably. For long-term funds, a three-year period is generally regarded as a bare minimum. More weight can be attached to longer periods of five to 10 years, or at least two market cycles.

COMPARATIVE PERFORMANCE

Return data is useful in telling us how much a particular fund earned over a given period. However, its usefulness is limited because it does not indicate whether the fund was performing well or poorly, especially relative to other funds in its group.

To determine the quality of fund performance, you must compare the return against some standard. For mutual funds, there are two general standards of comparison: the return on a fund's benchmark index and the average return on the fund's **peer group** of funds.

BENCHMARK COMPARISON

All mutual funds have a benchmark index against which their return can be measured. Examples include the S&P/TSX Composite Index for broad-based Canadian equity funds and the FTSE Canada Universe Bond Index for bond funds. If a fund reports a return that is higher than the return on the index, we can say that the fund has outperformed its benchmark. If it reports a return that was lower than the return on the index, it has underperformed its benchmark.

Morningstar Canada has developed a series of mutual fund benchmarks that summarize average rates of return for Canadian bond, Canadian equity, U.S. equity, global bond, and international equity funds. These indexes, which are available on the firm's website, provide a benchmark that investors can use to measure the relative performance of various funds.

PEER GROUP COMPARISONS

A peer group is made up of mutual funds with a similar investment mandate. To measure the performance of a fund, its return is compared to the average return of the peer group. Therefore, if a fund posted a one-year return of 12% while the average return of its peer group over the same period was 9%, we can say that the fund outperformed its peer group over the evaluation period.

ISSUES THAT COMPLICATE MUTUAL FUND PERFORMANCE

When comparing mutual fund performance, one must avoid comparing the performance of two funds that are dissimilar (e.g., a fixed-income fund versus a growth equity fund) or comparing funds that have differing investment objectives or degrees of risk acceptance.

One complicating factor occurs when the name or class of fund does not accurately reflect the actual asset base of the fund. Investors should be aware, for example, that funds classified as Canadian equity funds may at times have significant portions of their assets invested in equities other than Canadian stocks. This is not to suggest that the fund manager is doing something wrong. Each manager must consider market trends and adjust the timing of the fund's investments. It does, however, suggest that the published results are often comparing apples with oranges.

This discrepancy between a fund's formal classification and its actual asset composition can impair attempts to create a portfolio. For example, an investor who wished to allocate 10% of a portfolio to gold stocks might be surprised to find that, at some points, gold mutual funds are holding 50% of their assets in cash. The result is an actual asset allocation of 5% in gold, rather than the desired 10%.

Another factor that complicates comparisons between funds is that there is often no attempt to consider the relative risk of funds of the same type. One equity fund may be conservatively managed, whereas another is willing to invest in much riskier stocks in an attempt to achieve higher returns.

Any assessment of fund performance should consider the volatility of a fund's returns. The measures of volatility attempt to quantify the extent to which returns will fluctuate. From an investor's standpoint, a fund that exhibits significant volatility in returns is riskier than those with less volatility. The following measures are used to quantify mutual fund volatility:

- The standard deviation of the fund's returns, which, if high, might indicate future volatility
- Beta, which relates the change in the price of a security to the change of the market as a whole
- The number of calendar years it has lost money
- The fund's best and worst 12-month periods
- The fund's worst annual, quarterly, or monthly losses

Other methods, which look at different time periods, can be used to calculate best-case and worst-case scenarios. Ratings systems based on multiple periods avoid placing too much emphasis on how well or poorly the fund did during a particular short-term period.

When dealing with mutual funds in the role of an advisor, you should be aware of a fund's performance relative to the stock market cycle. Some funds will outperform others in rising markets, but do worse than average in declining markets. The beta, available on most fund performance software, measures the extent to which a fund is more or less volatile than the underlying market in which it invests. The greater the variation in the fund's returns, the riskier it tends to be. Particular attention should be paid to periods during which a fund has lost money.

DID YOU KNOW?

Software products that permit advisors to review performance and sort funds according to various criteria include Globe HySales and Morningstar PALTrak.

PITFALLS TO AVOID IN JUDGING MUTUAL FUND PERFORMANCE

When judging a mutual fund's performance, there are various issues to consider that may lead to flawed conclusions. The following considerations are some of the common issues to avoid:

- Past performance is not indicative of future performance. Especially in a general market downturn, there is no guarantee that any fund will be able to maintain or improve on its past performance. Nevertheless, mutual fund advisors often scrutinize the past in an attempt to predict future performances.
- Historical performance may be especially irrelevant when there has been a change in portfolio manager. Some observers argue that the performance of a fund is a direct reflection of the skill of the portfolio manager.
- Although average returns for a peer group of funds are useful measures, they can reflect *survivorship bias*. This term describes a tendency for poorly performing funds to be discontinued or merged. Therefore, average returns of surviving funds may be artificially high because they do not fully reflect past performance of the entire spectrum of funds.
- Mutual fund performance evaluations should consider both the type of fund and its investment objectives. Bond funds cannot be compared with equity funds, nor should you compare equity funds with different investment objectives.
- Finally, beware of selective reporting of performance periods, especially when there are no comparable numbers for the performance of a market benchmark or a peer group of competing funds.

MEASURING MUTUAL FUND PERFORMANCE

Can you evaluate the performance of various types of mutual funds? *Complete the online learning activity to assess your knowledge*.

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, we discussed the following key aspects of mutual funds:

- The CIFSC groups Canadian-domiciled mutual funds into several categories: money-market, fixed income, balanced, equity, commodity, specialty, alternative and target-date funds.
- Passive management involves indexing to a market or a customized benchmark. Active managers try to outperform market benchmarks by using active asset allocation and selection.
- Mutual funds held in registered accounts have no immediate tax consequences on redemption. Those held in non-registered accounts are subject to tax on capital gains when the fund is sold, as well as on annual distributions of income and capital gains earned within the fund.
- Mutual funds offer several types of systematic withdrawal plans: ratio withdrawal, fixed-dollar withdrawal, fixed-period withdrawal, and life expectancy-adjusted withdrawal.
- Performance is measured by calculating the return realized by a portfolio manager over a specified period. A TWRR minimizes the effect of contributions and withdrawal by investors. The daily valuation method measures the incremental change in fund value from day to day. The Modified Dietz method reduces the extensive calculations of the daily valuation method by providing a good approximation.
- The quality of a fund's performance is determined by comparing it against a relevant standard, which is either a fund's benchmark index or the average return on the fund's peer group of funds.

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 18 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 18 FAQs.

Exchange-Traded Funds 19

CHAPTER OVERVIEW

In this chapter, you will learn about the regulation, structure, and taxation of exchange-traded funds. We will also discuss features, risks, and various types of exchanged-traded funds, as well as common strategies.

LEARNING OBJECTIVES	CONTENT AREAS
1 | Explain the regulatory requirements and different legal structures of ETFs.	**The Regulation and Structure of Exchange-Traded Funds**
2 | Describe the key features of exchange-traded funds.	**Key Features of Exchange-Traded Funds**
3 | Differentiate among the types of ETFs.	**The Various Types of Exchange-Traded Funds**
4 | Identify and explain the risks specific to ETFs.	**The Risks of Investing in Exchange-Traded Funds**

5 |	Compare and contrast ETFs and mutual funds.	**Comparing Exchange-Traded Funds and Mutual Funds**
6 |	Summarize the taxation impacts of investing in ETFs.	**Taxation of Investors in Exchange-Traded Funds**
7 |	Identify the investment strategies involving ETFs.	**Investment Strategies Using Exchange-Traded Funds**
8 |	Define mutual funds of ETFs and exchange-traded notes (ETNs).	**Other Related Products**

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

active ETFs

core holdings

commodity ETFs

covered call ETFs

designated broker

equity-based ETFs

ETF Facts

exchange-traded funds

exchange-traded notes

full replication

futures-based ETFs

in-kind exchange

inverse ETFs

leveraged ETFs

physical-based ETFs

prescribed number of units

roll yield loss

rules-based ETFs

sampling

satellite holdings

spot price

synthetic ETFs

tracking error

INTRODUCTION

An exchange-traded fund is an investment vehicle that combines some features from mutual funds and some from individual stocks. They are typically structured as open-end mutual fund trusts and are regulated like any other mutual funds, subject to National Instrument 81-102. In certain cases, they are also subject to National Instrument 81-104, which addresses funds that use commodities and derivatives, either alone or in combination.

Similar to mutual funds, exchange-traded funds are professionally managed products, either actively or passively. Passive management constructs a portfolio of securities that track specific market indexes, such as the S&P/TSX 60 Index or the S&P 500 Index. Most exchange-traded funds are passively managed, but the number of actively managed exchange-traded funds is increasing.

Unlike open-end mutual funds, units of an exchange-traded fund trust are listed and traded on a stock exchange or an alternative trading system, much like individual stocks. Because they are traded on an exchange, exchange-traded funds can be bought on margin and sold short, and some have options trading on them.

THE REGULATION AND STRUCTURE OF EXCHANGE-TRADED FUNDS

1 | Explain the regulatory requirements and different legal structures of ETFs.

Exchange-traded funds (ETF) are regulated under either of two national instruments, depending on their structure. The different structures and regulatory requirements are described below.

MUTUAL FUND TRUSTS AND MUTUAL FUND CORPORATIONS

Much like the way mutual funds are structured, ETFs in Canada are structured as mutual fund trusts or as mutual fund corporations. Both ETF classification structures are regulated according to National Instrument (NI) 81-102 and can be bought and sold by many dealers registered with the Mutual Fund Dealers Association (MFDA) of Canada or the Investment Industry Regulatory Organization of Canada (IIROC). Several types of ETFs under these structures include index and **active ETFs**. Under NI 81-102, the use of leverage and the use of derivatives for non-hedging purposes is generally limited.

DID YOU KNOW?

Under MFDA Policy No. 8 – *Proficiency Standard for Approved Persons Selling Exchange Traded Funds*, mutual fund dealing representatives must meet minimum proficiency standards to deal in ETFs to satisfy requirements under MFDA Rule 1.2.3 and NI 31-103 – *Registration Requirements, Exemptions and Ongoing Obligations*.

GENERAL DISCLOSURE REQUIREMENTS FOR EXCHANGE-TRADED FUNDS

ETFs predominantly use the client disclosure documents system to qualify the distribution of ETFs to the public. The actual requirements of this system are set out in NI 41-101.

ETF FACTS DOCUMENT

ETFs must produce and file a summary disclosure document called **ETF Facts**. This document is designed to look like the Fund Facts document that accompanies a mutual fund. However, ETFs differ

from mutual funds in some key ways, which the ETF Facts must reflect. In addition to the standard information presented in a Fund Facts document, the ETF Facts document must address the trading and pricing characteristics of ETFs. For example, the ETF Facts document includes information related to market price and bid-ask spread, as well as to premium and discount of market price to the net asset value (NAV).

An amendment to NI 41-101 has also introduced a new disclosure delivery regime for ETFs as of December 10, 2018. Because ETFs are exchange traded, the delivery mechanism differs from that of mutual funds. The ETF Facts document is distributed through the dealer where the ETF is purchased. The amendment requires dealers receiving a purchase order for ETF securities to deliver the ETF Facts document to investors, instead of the prospectus, within two business days of the purchase. The dealers are also required to make the prospectus available to investors, upon request, at no cost.

Under the proposed amendment, investors who do not receive the ETF Facts document have the right to seek damages or to rescind the purchase.

DID YOU KNOW?

As part of ETF disclosure requirements, a Long Form Prospectus must be filed with the securities commission annually. It does not need to be updated annually unless there is a change in the affairs of the ETF. As with a Simplified Prospectus, the long form must be written in plain language and set up in a standard, easily navigated format.

The prospectus must be mailed or otherwise delivered to purchasers upon their request. For further purchases of the same ETF, it is not necessary to provide the prospectus or ETF Facts document again unless the documents have been amended or renewed.

Furthermore, ETFs are subject to the same continuous disclosure requirements as other mutual funds regarding annual audited financial statements and management reports.

CREATION AND REDEMPTION PROCESS OF A STANDARD EXCHANGE-TRADED FUND

When an ETF provider wants to launch a new ETF, it does so through a **designated broker** with whom it has entered into a contractual agreement. The designated broker may be a market maker or a specialist representing a large investment dealer.

DID YOU KNOW?

ETFs are open-end funds, which means that there can be an unlimited supply to meet increasing demand.

ETFs are created or redeemed in blocks of units known as a **prescribed number of units** – typically consisting of 10,000, 25,000 or 50,000 ETF units. If an ETF is designed to track a particular index, the designated broker buys (or borrows from a securities lender) shares in all of that index's component parts, in increments set by the respective ETF provider. The designated broker then delivers the basket of shares to the ETF provider. In exchange, the ETF provider gives the designated broker the prescribed number of units, which the broker can break up and sell as individual ETF units in the open market.

EXAMPLE

The following common shares comprise an index of only five securities and shows the number of shares that are required to form a basket of securities set by the ETF provider that can be exchanged for a prescribed number of ETF units. In this example,

the designated broker can deliver the basket of stocks described below in exchange for the prescribed number of units of 50,000.

Common Share Issuer	Basket of Shares	Current Price	Total Value
ABC Corp.	1,500	$59.62	$89,430
DEF Corp.	1,785	$71.50	$127,628
JKL Corp.	2,312	$47.38	$109,543
MNO Corp.	1,482	$25.93	$38,428
QRS Corp.	2,112	$15.01	$31,701
		Total Value	**$396,730**

If the designated broker delivers the basket of shares with a value of $396,730 to the ETF provider, the ETF provider in turn will deliver 50,000 ETF units to the designated broker, where the value per unit would be $7.93 (calculated as $396,730 ÷ 50,000). The total value of the basket of stocks divided by the prescribed number of units determines the value per ETF unit to be sold in the marketplace.

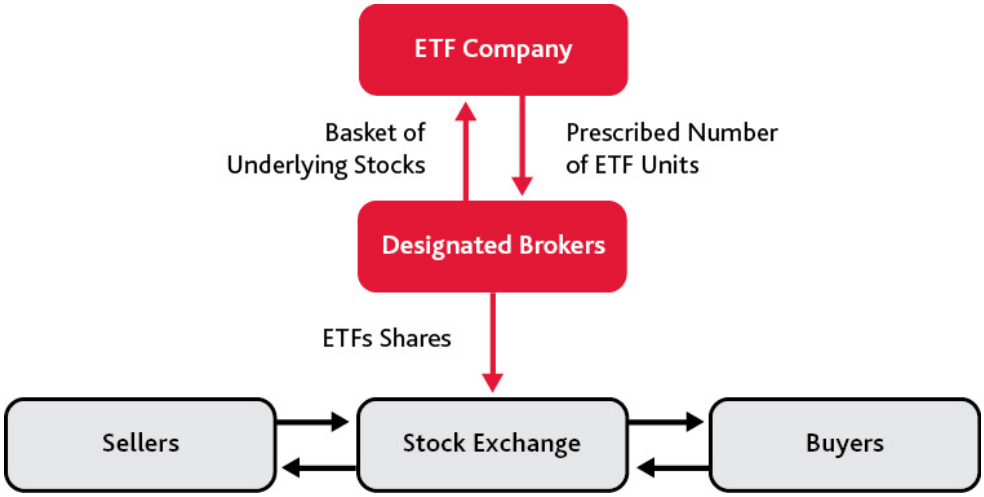
The process also works in reverse: the designated broker can remove ETF units from the market by purchasing enough units to form the prescribed number for a unit. The broker then exchanges the unit with the ETF provider for the underlying shares that comprise the index.

One key reason why ETFs are relatively cheap in terms of MERs compared to mutual funds is because designated brokers normally pay trading costs and fees associated with the purchase and sale of the underlying securities that comprise the index. Designated brokers make their money from the bid/ask spread, as investors buy

and sell the ETFs. Not only does this system result in lower trading costs, it also creates a fairer system for paying those costs. In the case of mutual funds, all unitholders pay the costs associated with carrying out a single investor's trading instruction. With ETFs, the trading costs of a single buyer or seller are paid for directly by that buyer or seller, largely through the bid/ask spread of the ETF (as well as any trading commissions).

Basically, the creation and redemption process involves the designated broker buying and selling ETF units and exchanging them with the ETF provider for the ETF's underlying securities. This process, as shown in Figure 19.1, is a key feature of ETFs. The feature is known as an **in-kind exchange** because a basket of stocks is exchanged for ETF units, rather than for cash.

Figure 19.1 | In-Kind Exchange Process



Through the in-kind exchange process, both parties benefit from the transaction: the ETF provider receives the stocks it needs to track the index and the designated broker receives ETF units to resell.

In addition, investors benefit from lower trading costs because the process keeps the price of the ETF in line with the NAV of its underlying securities. For example, if the traded value of the ETF strays too far above the NAV of the underlying securities, the designated broker or other institutional players can attempt to profit

from this arbitrage opportunity. To do so, they buy the underlying securities in the open market, redeem them for the prescribed number of ETF units, and then sell the units in the open market.

EXAMPLE

An ETF is trading on an exchange at $20, but the NAV of the underlying stocks upon which it is based is $19.50.

A designated broker buys the basket of underlying stocks and exchanges it with the ETF provider for a prescribed number of ETF units. The designated broker then sells the new ETF shares and shows a profit of $0.50 per share. This action puts downward pressure on the ETF price (because new shares are entering the market) and upward pressure on the underlying share prices.

Conversely, more pressure to sell ETFs can result in the ETF trading at a discount to the NAV of the underlying securities.

For example, using the above figures, the NAV is $20.50. In this case, the designated broker can purchase a prescribed number of units of the ETF at $20 per share on the open market and redeem them for the underlying securities. The designated broker can then sell the underlying securities and earn a $0.50 profit. This process puts some upward pressure on the ETF price and downward pressure on the underlying securities, moving the relationship back towards one that reflects fair value.

Because more than one designated broker often follows the respective ETFs and quotes on the trades, the exchange process provides liquidity to the markets and creates competition among the designated brokers and market makers.

These examples do not take trading costs into consideration. Naturally, the spread between the NAV and ETF price would have to be large enough to provide the designated broker with a profit net of these costs.

KEY FEATURES OF EXCHANGE-TRADED FUNDS

2 | Describe the key features of exchange-traded funds.

ETFs have the following key features:

- Low cost
- Tradability, liquidity, and continuous price discovery
- Low tracking error
- Tax efficiency
- Transparency
- Low cost diversification
- Targeted exposure

Each of these features is explained briefly below and in more detail throughout the course.

LOW COST

ETFs generally have a significantly lower management expense ratio (MER) compared to other managed products and mutual funds. The MER is lower because most ETFs are passively invested; therefore, they do not bear the costs of active portfolio management. Index mutual funds are passively managed as well, but ETFs tend to have lower costs than even those funds. The primary reason is that ETFs are traded on an exchange, where the administrative costs of record-keeping, issuance of prospectus documents and client statements, and handling of client inquiries are borne by the dealer member that holds the client‘s account. With index mutual funds, these costs are carried by the mutual fund company and get passed on directly to the investor.

DID YOU KNOW?

As described in an earlier chapter, the efficient market hypothesis states that the prices of securities reflect available information in efficient markets. A passive investing approach is appropriate for investors who believe in the efficient market hypothesis, particularly the strong form. Investors who reject the hypothesis would likely use an active approach.

Beyond the lower management costs, ETFs also tend to have lower trading costs than mutual funds. Mutual funds have implicit trading costs related to the need to purchase or sell securities to meet fund flows. ETFs, on the other hand, use an in-kind creation and redemption process, whereby the designated broker buys and sells securities to create and redeem shares. Because the ETF does not have to buy or sell securities, trading expenses incurred by the fund are further reduced.

In terms of advisor compensation, ETF purchasers pay a commission (unless the purchase is within a fee-based account, in which case the fee is based on the dollar size of the account). In contrast, mutual funds have a wide variety of advisor compensation structures, including front-end, back-end, and low-load options.

Investors who purchase ETFs outside of a fee-based account can further minimize their commission costs by purchasing through a self-directed broker, where rates are potentially very low. Some ETFs do offer ongoing compensation in the form of a trailer fee, but they represent only a small portion of the ETF industry in Canada.

TRADABILITY, LIQUIDITY, AND CONTINUOUS PRICE DISCOVERY

As with stocks, ETFs enable investors to buy and sell throughout the day, as long as the respective exchanges are open. They can be held on margin or shorted, and options can trade on them. As well,

various kinds of orders such as market, limit, and stop orders can be placed on them.

The liquidity of ETFs is derived from the underlying securities, rather than the ETF units themselves. Because an ETF is just a basket of securities, and the basket is exchangeable for the underlying assets, the volume of the underlying assets is the true indication of the ETF's liquidity.

ETFs trade on an exchange; therefore, there is continuous and transparent pricing during trading hours. Although this process adds value to all ETFs, the following two types of ETFs benefit in particular:

- Those that have relatively illiquid underlying assets
- Those that trade on exchanges while the underlying market is closed (for example, when the underlying market is overseas)

In these cases, the underlying asset price discovery process is often accomplished through the ETF. Because it is more accessible than the underlying asset, the ETF can reflect market information as it happens and actually lead the price of the underlying. It is reassuring to investors that the ETF price cannot depart from that of the underlying asset for very long or to a great extent. Arbitrage between the two prices continually forces them to remain in line with each other. Therefore, tracking error is minimized.

LOW TRACKING ERROR

For ETFs, **tracking error** is usually defined as the simple difference between the return on the underlying index or reference asset and the return on the ETF. Tracking error can be caused by several factors, including the cost to run the fund, cash drag, and **sampling** methods.

For most ETFs, tracking error is usually less than what is apparent with mutual funds, primarily because the ETF administrative and trading costs are lower.

ETFs cannot deviate much from their NAV because of the in-kind creation and redemption process. This process allows market participants to create or redeem ETF shares at the end of each day at their NAV. Therefore, they are able to arbitrage between the ETF itself and the ETF's underlying securities. If the market price of an ETF deviates from the fund's NAV, market makers can perform arbitrage until this difference is minimized. However, if arbitrage is difficult and costly to implement, the tracking error level will be higher than normal. Two factors that could make arbitrage difficult and costly are a lack of liquidity and a large number of securities making up the underlying index.

TAX EFFICIENCY

Index-based ETFs, which make up a large portion of the ETF market, tend to have lower portfolio turnover. Stocks are sold only when there are changes to the index, which results in fewer realizations of capital gains than other investment products (such as actively traded mutual funds). Therefore, fewer taxable events allow the capital to compound over time. In addition, the in-kind creation and redemption mechanism allows most ETFs to avoid certain taxable events. Such events arise with mutual funds, when redemptions take place and securities must be sold to raise cash within the fund. (We discuss the tax implications of investing in ETFs later in this chapter.)

TRANSPARENCY

In the United States, ETF providers are mandated to publish their holdings daily. In Canada, no such regulatory requirement is imposed on ETF providers. The requirement is the same as it is for mutual funds: top holdings must be published monthly and all holdings quarterly. Nevertheless, index ETFs do publish their holdings daily, and this information is also available from the provider whose index the ETF is tracking. This transparency allows investors to gauge the attributes offered when the respective ETFs are added

to a portfolio. In addition, some ETF providers post their tracking errors to their respective indexes. This record provides further transparency, as investors can measure how well the ETF has tracked the index and its level of dispersion.

With respect to actively managed ETFs in Canada, some do publish their holdings daily. However, this is a challenge for these ETFs to balance the trade-off between the benefits of transparency for investors and the competitive risks of disclosing their holdings.

LOW COST DIVERSIFICATION

With a single ETF you can have exposure to a broad range of stocks, bonds, market segments, and manager styles. You could also hold an ETF that attempts to mimic the performance of a country or group of countries. Given the high correlations between securities within sectors or asset classes, ETFs offer diversification at a lower cost than mutual funds and other managed products. ETFs can also help to mitigate the risk of holding a single stock or bond, given their typical structure of a basket of securities. Traditional stock pickers increasingly use ETFs to implement their asset allocation strategies. The low-cost diversification of ETFs is one key contributing factor supporting this trend.

TARGETED EXPOSURE

ETFs allow small investors to access a broad range of assets that were previously difficult and expensive to purchase. Investment opportunities that were once realistically only available to institutional and other large investors have become open to everyone. Therefore, ETFs have helped democratize the investing process and level the playing field between large and small investors.

Furthermore, equity ETFs have branched into various sectors and regions, and fixed-income ETFs have been refined for credit quality and term. Investors can therefore now use ETFs to implement investment themes that were previously too difficult and costly to

obtain. These new products and innovations have allowed investors to use ETFs to create or supplement their investment portfolios.

THE VARIOUS TYPES OF EXCHANGE-TRADED FUNDS

3 | Differentiate among the types of ETFs.

The following types of ETFs are available on the market:

- Standard (index-based)
- Rules-based
- Active
- Synthetic
- Leveraged
- Inverse
- Commodity
- Covered call

Each type is described in detail below.

DID YOU KNOW?

Those who are licensed through the Investment Industry Regulatory Organization of Canada can deal in any type of ETF that is registered under NI 81-102. However, because of the derivatives components and strategies of synthetic, leveraged, inverse, and **commodity ETFs**, mutual fund dealing representatives are generally not allowed to deal in these products, unless they meet a higher level of proficiency.

STANDARD EXCHANGE-TRADED FUNDS

With standard ETFs, the reference index on which the ETF is based can be either exactly replicated or approximately constructed, depending on the method used.

Full replication	**Full replication** is often used with equity portfolios of large capitalization stocks because those stocks are extremely liquid investments. In such cases, the ETF holds all of the stocks in the same weight as the respective index. The full replication process tracks extremely close to the benchmark index, with minimal tracking error.
Sampling	Sampling is the process by which the portfolio manager selects securities and their weighting to best match the performance of the index. This method is typically used to construct portfolios of fixed-income and some international and small cap equity ETFs. The purpose of sampling with fixed-income ETFs is to achieve an outcome that replicates the performance of a large number of bonds that may not be accessible in the open markets.

Although sampling is most often used for fixed-income ETFs, it is also used in some cases where full replication is not optimal for equity ETFs. These cases reflect considerations of either liquidity or index construction. With index construction, if the number of holdings within the index is significantly high, sampling makes the ETF more efficient, given the trading costs to reproduce the full index. With a sampling approach, there could be some differences between the index and the performance of the ETF. In most cases, this tracking error is small, but it should be reviewed regularly.

Regardless of the method used to replicate the index, the holdings of a standard ETF are the most transparent of any of the ETF types.

One of the ideal characteristics of a good benchmark is that investors can identify its membership at any time. This transparency is a key feature of standard ETFs. Typically, the holdings of a standard ETF and their weightings within the index are published by the issuer of the ETF. Naturally, this information is available from the index provider as well. In addition, some ETF providers post their tracking errors to their respective indexes.

EXAMPLE

An example of a standard ETF is the iShares S&P/TSX 60 Index ETF, which happens to be the largest and most liquid ETF in Canada. This ETF sets out to replicate the performance of the S&P/TSX 60 Index that trades on the Toronto Stock Exchange (TSX). This ETF is the largest ETF traded in Canada. It was launched in 1990 under the name Toronto 35 Index Participation Units, or TIPS for short.

RULES-BASED EXCHANGE-TRADED FUNDS

Rules-based ETFs take a goal-oriented approach. Rather than following a traditional market-capitalization weighted index, they follow an index focused on the areas of a market that offer higher returns or lower risks than traditional indexes. At the same time, they retain the positive characteristics of passive investing, including lower costs and increased transparency.

Rules-based ETFs are constructed based on a defined methodology to achieve a specific objective. They are usually associated with an index; however, some rules-based ETFs do not follow a specific underlying index. In these cases, construction rules are generally developed by the ETF provider and published in advance. The ETF provider follows the rules in the same way it would follow an index. Like traditional ETFs, rules-based ETFs generally attempt to use full replication, with general transparency of the holdings published on the provider's website.

Rules-based ETFs are sometimes called *smart beta ETFs* because of the strategies they use. Smart beta strategies attempt to deliver a different outcome than conventional market-cap-weighted indexes. To do this, they use alternative weighting schemes, which may be based on any one of various criteria. For example, typical criteria may include volatility, dividends, or top-line revenue.

EXAMPLE

An example of a smart beta ETF is the BMO MSCI USA High Quality Index ETF. This ETF has been designed to replicate, to the extent possible, the performance of the MSCI USA Quality Index, net of expenses. The fund invests in U.S. equity markets while screening for high return on equity, stable year-over-year earnings growth, and low financial leverage.

ACTIVE EXCHANGE-TRADED FUNDS

Most ETFs are index-based. However, a growing number of actively managed ETFs have been launched in the marketplace in recent years.

Construction techniques of the active ETF vary according to the sponsor and its investment style (e.g., value or growth-based, top-down or bottom-up, and quantitative or qualitative). The active portion of a fund is constructed and managed no differently than any other active mutual fund. What differs is the timing of trading activity. An active mutual fund manager trades whenever market conditions and opportunities permit. In contrast, a manager in charge of the active portfolio of an ETF may have some restrictions as a result of the in-kind creation and redemption process. Designated brokers must know what is represented by the prescribed number of units, which means that the units cannot trade unless the designated broker knows about any changes. This communication process may take some time. For example, the manager may be permitted to make portfolio changes only at the end of a day or a week.

Active ETFs may charge a lower MER fee than an open-end mutual fund that manages a similar portfolio, but generally more than another ETF with a passive benchmark.

In the United States, the Securities and Exchange Commission rules dictate that the manager's trades must be revealed the day after the transactions. In Canada, such trades do not have to be revealed earlier than on a quarterly basis, according to NI 81-106. Therefore, the duration of any possible discrepancy between the ETF unit value and its NAV is minimized in the United States; whereas in Canada, the risk of discrepancy is greater.

Compared to passively managed ETFs, actively managed ETFs have less transparency and higher MERs. They are also less tax efficient because portfolio turnover is higher.

EXAMPLE

An example of an actively managed ETF in Canada is Horizons Active Emerging Markets Dividend ETF. The investment objective of this ETF is to seek long-term returns consisting of regular dividend income and modest, long-term capital growth. Investments are primarily in equity and equity-related securities of companies with operations in emerging market economies.

SYNTHETIC EXCHANGE-TRADED FUNDS

Synthetic ETFs differ from other types because they do not hold the same underlying exposure as the index they track. These ETFs are constructed with derivatives, such as swaps, to achieve the return effect of the index. As a result, the exposure of synthetic ETFs is notional, rather than real.

DID YOU KNOW?

Swaps are over-the-counter derivatives that are privately

negotiated between two counterparties. They can be thought of as a series of forward contracts and are subject to the same pricing factors, namely cost-of-carry (which includes such costs as financing, storage, and insurance). Simply put, each counterparty agrees to swap fixed and variable cash flows based on the price of a reference asset over a period of time.

Swap-based synthetic ETFs are less transparent to the retail investor than their physical versions, where the underlying assets consist of stocks, bonds, or bullion held in trust. ETFs that use swaps are exposed to counterparty risk—that is, the risk that the counterparty in the contract will no longer be able to meet its obligations.

LEVERAGED EXCHANGE-TRADED FUNDS

Like synthetic ETFs, **leveraged ETFs** use derivatives such as swaps to achieve the leveraged return effect. The portfolio transparency of leveraged ETFs is similar to that displayed in synthetic ETFs.

A leveraged ETF is designed to achieve returns that are multiples of the performance of the underlying index they track. The use of leverage, or borrowed capital, makes them more sensitive to market movements. The fund uses borrowed capital, in addition to investor equity, to provide a higher level of exposure to the underlying index. Typically, a leveraged ETF uses $2 of leverage for every $1 of investor capital. The goal is to generate a return from the borrowed capital that exceeds what it cost to acquire the capital itself. For example, a leveraged ETF might attempt to achieve a daily return that is two times the daily return of the S&P 500. The challenge with these structures is that they are *path dependent*, which means that longer holding periods can create differences between an expected and realized return.

EXAMPLE

An example of a leveraged ETF is the ProShares Ultra S&P500, which attempts to deliver daily investment results that correspond to twice the daily performance of the S&P 500.

INVERSE EXCHANGE-TRADED FUNDS

Inverse ETFs can be constructed with derivatives such as swaps to achieve an inverse return effect. For example, an ETF could be based on a $300 million value swap referenced to the S&P 500. The swap could have a 10-year term, during which time the ETF sponsor makes periodic fixed payments in return for variable payments received every time the S&P 500 declines. The portfolio transparency is similar to that displayed in leveraged and synthetic ETFs. Inverse ETFs can be either leveraged or unleveraged.

EXAMPLE

An example of an inverse ETF is the Horizons BetaPro S&P/TSX 60 Inverse ETF that seeks to replicate, net of expenses, the inverse daily performance of the S&P/TSX 60 Index.

ETFs that offer leverage or that are designed to perform inversely to the index or benchmark they track, or both, are highly complex financial instruments. They are typically designed for trading during the day. Because of the effects of compounding, their performance over longer periods can differ significantly from their stated daily objective. Therefore, leveraged and inverse ETFs that are reset daily are typically unsuitable for retail investors who plan to hold them for longer than one trading session, particularly in volatile markets.

COMMODITY EXCHANGE-TRADED FUNDS

There are three types of commodity ETFs: *physical-based*, *futures-based,* and *equity-based*. Below is a brief description of these three types.

Physical-based ETFs	**Physical-based ETFs** invest in the commodity directly. They are limited to only a few storable, non-perishable commodities, such as gold and silver. This structure has the benefit of closely matching the **spot price** (the price at which a commodity is bought or sold for immediate payment and delivery).
Futures-based ETFs	**Futures-based ETFs** invests in futures contracts of different commodities, with an underlying portfolio of money market instruments to cover the full value of the contracts. As near-term contracts approach expiration, they are rolled over into more distant contracts. In a normal market, rolling over the contracts can result in **roll yield loss** (the loss that results when a near-term futures contract approaches expiration and is rolled over into a more distant contract).
Equity-based ETFs	**Equity-based ETFs** invest in listed companies that are involved in exploration and development, or in the processing or refining of a commodity.

Each type offers exposure to the respective commodity; however, they all present challenges in providing access to the spot price of a commodity.

Commodity-based equities, and the ETFs based on them, often are not great proxies for the underlying commodity price because of factors that affect corporate performance and the general movement of the stock market.

DID YOU KNOW?

In a normal futures market (called a contango market), the distant contracts are priced higher to reflect the underlying commodities' cost of carry. This is why rolling over the contracts in a contango market can result in a roll yield loss.

By having to continuously buy futures contracts that are consistently priced higher than the spot price, the ETF is essentially locking in a small loss every time it rolls its futures positions. This loss affects the performance of the ETF, although less explicitly than the costs incurred by physically holding the commodity.

Physical holdings in a commodity ETF are quite transparent; they simply have commodity holdings in designated warehouses and vaults. The transparency of securities holdings in a commodity ETF using derivatives depends on the type of replication the ETF sponsor is using. Visibility is clear if the ETF uses exchange-traded futures. It is less clear if the ETF portfolio uses a complex set of over-the-counter derivatives.

EXAMPLE

An example of a commodity ETF that is based on the physical holding of a commodity is the State Street's SPDR Gold Shares ETF. The underlying assets consist of gold bullion stored in secure vaults. As such, the price of this ETF can be expected to move in lockstep with spot gold prices.

COVERED CALL EXCHANGE-TRADED FUNDS

Covered call ETFs employ strategies that have long been used by individual investors who have direct access to the equity and option markets. These strategies enhance the yield and reduce the volatility of owning the underlying stock or portfolio of stocks the options are applied against.

DID YOU KNOW?

As we discussed in Volume I of this course, a covered call

option strategy, also known as a buy–write strategy, is implemented by writing (selling) a call option contract while owning an equivalent number of shares of the underlying stock. By writing a call against an underlying position, the investor would have to sell the stock, if it is assigned by the call buyer, when the market price rises above the call's strike price. The covered call writer is, in effect, forgoing the opportunity to participate in the stock's price appreciation over the exercise price. In return, the investor receives a premium, which provides some extra income and downside price protection.

One advantage to accessing covered call strategies through an ETF (rather than directly) is having a team of professionals look after the investments. Another advantage is that managed products can engage in continuous application of covered call strategies. Therefore, the portfolio manager can write calls as often as needed and then later decide what to do with these contracts.

When choosing a particular type of covered call ETF, you need to consider several issues.

Management constraints	Depending on the mandate of the product, there can be constraints on the portfolio manager that reflect the type of strategy the product is focusing on. For example, the manager may be constrained to using only at-the-money or out-of-the-money approaches, as well as percentage written. An understanding of the various types of constraints provides insight into the possible performance of the strategy in upward, downward, and range-bound markets.
Fixed versus variable payments	A fixed payment provides a consistent cash flow to the investor but can at times deplete capital if the sources of the fund's yield (dividends and option

	premium) are not sufficient to cover the payment. A variable payment preserves principal, but payments can vary significantly, depending on market conditions and the strategy executed. It is usually preferable to avoid depleting principal over time, so investors should look for managed covered call strategies that pay a sustainable distribution.
Fees	Covered call ETFs generally have higher MERs and particularly higher trading expense ratios, in comparison to other types of ETFs. However, in terms of the costs of directly dealing in covered calls (e.g., bid/ask spreads and commissions), ETFs are price competitive.

EXAMPLE

An example of a covered call ETF is the BMO Covered Call Canadian Banks ETF, which has been designed to provide exposure to a portfolio of Canadian banks while earning call option premiums. The ETF invests in securities of Canadian banks and dynamically writes covered call options. The call options are written out-of-the-money and are selected based on analysis of the option's implied volatility. The option premium provides limited downside protection.

THE RISKS OF INVESTING IN EXCHANGE-TRADED FUNDS

4 | Identify and explain the risks specific to ETFs.

ETFs are useful and versatile securities that offer investors many benefits. There are, however, some risks to consider with certain

types of ETFs. There are three different categories of risk to consider: general investing risks; risks that are specific to ETFs; and risks specific to ETFs that use derivatives, leverage, or commodities, whether alone or in combination.

DID YOU KNOW?

General risks that investors face include inflation rate risk, interest rate risk, business risk, political risk, foreign investment risk, and risks based on liquidity and default.

General investment risks are a concern for investors in all types of securities, including mutual funds and ETFs. However, the following types are some of the risks that are specific to ETFs:

- Risk related to tracking error
- Concentration risk
- Risk related to the composition of the ETF
- Risk related to securities lending

RISK RELATED TO TRACKING ERROR

For ETFs, tracking error is usually defined as the simple difference between the return on the underlying index or reference asset and the return on the ETF. Tracking error can be positive or negative, but it is most often negative. In other words, the return on the ETF is often lower than the return on the underlying index or reference asset.

EXAMPLE

Last year, the return on an ETF linked to the S&P/TSX 60 Index was 8.5%, whereas the return on the S&P/TSX 60 Index itself was 8.75%. The ETF's tracking error in this case was 0.25%, or 25 basis points.

Tracking error is an important consideration for ETF investors because their purpose in investing in ETFs is to get the return on the underlying index or reference asset. All else being equal, a return as close as possible to the return on the underlying index or reference asset is preferred over one that is substantially above or below that return.

Tracking error on ETFs is generally lower in comparison to mutual funds because most ETFs are index-based. Also, the in-kind creation and redemption mechanism of ETFs keeps their prices very close to fair value. However, there is still a risk of tracking error, particularly with niche ETFs, for the reasons described below.

FEES AND EXPENSES

The most obvious source of tracking error is the ETF's fees and expenses, including management fees, trading expenses, and operational expenses such as legal and accounting fees.

The indexes that ETFs track do not have fees and expenses associated with them. An ETF should therefore be expected to underperform its underlying index or reference asset by at least the percentage of the fund that goes toward these items. Fees and expenses are generally significantly less than those of mutual funds.

SAMPLING METHODS

Most equity index ETFs hold the shares of the index they are replicating. Some, however, particularly bond index ETFs, do not buy every security in the index. Instead, they invest in a subset of the index that the manager chooses as a representative sample. The aim of sampling is to give the ETF a return as close as possible to the return on the underlying index or reference asset. Naturally, there is greater tracking error risk with ETFs that use a sampling approach.

LIQUIDITY

The illiquidity of certain sectors of the fixed-income market makes it difficult for the creation and redemption process to keep the NAV close to its true value in a timely manner. Many bonds trade only a few times a day or week, and the number of bonds available in the open market diminishes as one goes down the credit scale or up in maturity. For these reasons, it can be difficult for institutional investors to trade size at a reasonable price. For example, a bond ETF based on federal or provincial government debt can have a tighter NAV than an ETF based on a corporate bond index.

CASH DRAG

Cash drag occurs when a fund is not fully invested in the underlying index or reference asset it is tracking. As a result, the fund's performance may trail that of the underlying index or reference asset. This risk is more pronounced with mutual funds, where time may be needed to work new money into the market. Mutual funds also tend to keep some cash on hand to deal with requests for redemptions.

By comparison, most ETFs are fully invested and thus do not generally have much cash drag, if any. With the innovations in ETFs, however, it is possible that some will not have fully invested in the reference asset or underlying index. In these cases, ETFs may hold cash for dividend or interest payments, or for trading activity. While the ETF holds the cash, the reference asset or underlying index moves along as usual, and the ETF trails its performance.

REBALANCING

Indexes are occasionally rebalanced as existing securities are taken out of the index and new ones are added. As well, weightings get changed frequently. It is relatively simple to instantaneously rebalance a hypothetical index, but ETFs must actually go out into the market and buy and sell securities. Although this process is

largely automated, tracking error arises when an ETF is unable to execute at the identical time and price as the index.

One way to minimize this type of tracking error is to focus on ETFs linked to indexes that require minimal rebalancing—specifically, market capitalization-weighted products. Equal-weighted indexes must rebalance much more frequently to give an equal allocation to each component security.

CURRENCY HEDGING

Some ETFs that invest in non-Canadian assets hedge the currency risk by taking an offsetting short position in the foreign currency to match the dollar amount of the underlying asset. If the underlying foreign currency depreciates in value against the Canadian dollar, the performance of the ETF will suffer, in Canadian dollar terms. However, these losses can be offset by the gain in the short foreign currency position. Conversely, if the foreign currency appreciates (which would otherwise help the performance of the ETF in Canadian dollar terms), these gains can be offset by the loss in the short foreign currency position. Either way, the ETF investor is protected from currency fluctuations. As a result, the investment performance is almost solely based on the underlying asset.

Currency hedging is done monthly, with no hedging of the market growth or depreciation of the underlying asset during the month. A small amount of currency risk results. Also, there is a minimal cost for the hedge. Between these two factors, a small amount of tracking error can occur, compared to the reference asset.

CONCENTRATION RISK

Concentration risk in an ETF occurs when a small number of holdings make up a disproportionate amount of the overall ETF value. In such cases, the ETF and underlying index on which it is based become more sensitive to moves in just a few stocks. As a

result, the diversification sought by an investor decreases and the unsystematic risk increases.

Both ETFs and mutual funds are prohibited from having more than 10% of their funds invested in the securities of one issuer. However, this regulatory restriction in concentration does not apply to index-based funds because it would keep the fund from attaining its investment objectives of matching the index. Because the restriction largely affects actively managed ETFs or mutual funds, concentration risk is not a concern for investors with these types of funds. It is, however, a concern for ETF index funds, particularly those funds that are focused on an index with a small number of components. These funds typically have concentration limits, but they may be considerably higher than the 10% regulatory limit.

When concentration risk is evident in an ETF, you should consider whether it might be more efficient to buy the individual securities held in the ETF instead.

RISK RELATED TO THE COMPOSITION OF THE EXCHANGE-TRADED FUND

Before recommending the purchase of ETFs to your clients, you must clearly understand the funds. Otherwise, your clients' expectations can diverge significantly from the market performance.

With thousands of ETFs available on the market, different ETFs can represent different components of the market—even different components of an individual sector. For example, although there are numerous different China ETFs to choose from, some represent a narrow index of stocks while others represent a broader index.

Some ETFs even trade on the basis of the same underlying stocks that comprise a particular index. However, they may use different weighting methodologies, causing their performance to differ significantly from the standard index.

EXAMPLE

Composition Risk

The RWL ETF is made up of the same equities found in the S&P 500 Index, but the holdings are weighted according to top-line revenue, rather than market capitalization. This different approach to weighting can produce very different results in performance.

DID YOU KNOW?

While a company's bottom line refers to its net income, top-line revenue refers to a company's gross revenue or sales.

RISK RELATED TO SECURITIES LENDING

Securities lending refers to extending a loan of stocks for a fee, with the aim of earning additional income for unitholders to partially offset fund fees. Many equity ETFs are active in the securities lending business. These ETFs lend their shareholdings to investors who wish to short sell certain equity issues. Short sellers may range from small retail investors to large hedge funds.

The risk of securities lending comes from the creditworthiness of the money market securities bought and received and the default risk of the share borrower. In 2007 and 2008, a liquidity crisis in the credit markets emerged as seemingly solid bond issuers defaulted on their obligations. To avoid their own liquidity crises, ETFs should set minimum credit guidelines for the short-term securities that ultimately serve as collateral.

Each ETF issuer has its own approach to conducting securities lending. NI 81-102 rules dictate that a maximum of 50% of a mutual fund trust NAV can be on loan at any time. The amount lent out varies depending on the ETF issuer and on the product. The average utilization rate of a large cap Canadian equity or broad

fixed-income fund is less than 5%. As part of a due diligence review of an ETF issuer, you need to understand the specific details of the approach to determine whether it is acceptable, and consider the following factors:

- Does the provider use a third-party securities lending agent? If investment lending is not a specialty of the firm, the use of a lending agent adds value.
- Where is the revenue from securities lending directed, and how much is directed back to the fund?
- Does the ETF issuer retain a portion of lending revenue?
- What type of collateral is required, and how far above the 102% minimum required by regulation does it reach?
- What type of minimum credit guidelines are set for the short-term securities that ultimately serve as collateral?
- Are there any special exemptions to the rules for fund-of-funds lending? The overall exposure to the risk of securities lending can be higher in this case.

COMPARING EXCHANGE-TRADED FUNDS AND MUTUAL FUNDS

5 | Compare and contrast ETFs and mutual funds.

In comparing ETFs and mutual funds, you should consider management style, transparency of holdings, and costs arising from embedded fees and advisor compensation, among many other factors. Table 19.1 provides a comparison of the various features of the two types of funds.

Table 19.1 | Comparing Exchange-Traded Funds and Mutual Funds

Category	Exchange-Traded Funds	Mutual Funds
Management Style	They consist mainly of passive funds, with some active funds.	They consist of mainly active funds, with some passive funds.
Transparency	Most ETFs provide full transparency.	Most mutual funds limit disclosure of holdings to once a month; typically focusing on the top 10 holdings.
Cash drag flow management	They can handle large infusions of cash without suffering from cash drag.	They need time to work new money into the market and tend to keep some cash on hand to fulfill redemption requests.
Embedded fees	Management and trading expenses tend to be lower because most funds are passive.	Management and trading expenses tend to be higher because most funds are active.
Advisor compensation	The client pays a commission to the dealer. The vast majority of ETFs do not provide trailer fees for the advisor.	In addition to load charges, investors may have an embedded compensation for the advisors, which is part of the MER. An exception is the F Class version of mutual funds.
Distribution	They are bought and sold like stocks in the secondary market	They are purchased and redeemed directly from the mutual fund at the end-of-day's NAV per unit. This is

	during the trading day. In some circumstances, ETFs can trade at a significant premium or discount to the NAV.	considered a primary market transaction, because units go directly between the investor and the mutual fund. Mutual funds do not trade at a premium or discount.
Tradability	They can be held in a margin account and sold short. ETFs trade throughout the day and investors can use special orders such as limit and stop loss orders.	They can be held in a margin account. Mutual funds cannot be sold short, do not trade during the trading day, and special trading rules do not apply.
Minimum investment	ETFs can be purchased in single units (though the spread may be slightly higher).	Mutual funds can be acquired for as little as $500.
Pre-authorized contributions (PACs) and systematic withdrawal plans (SWPs)	Only a few ETFs offer PACs and SWPs. Most ETFs allow only full units to be purchased or redeemed, which makes it harder to set the specific dollar value for PACs and SWPs.	Most mutual funds offer PACs and SWPs. Mutual funds can buy and sell partial units, and so a regular dollar value can be easily set.

Dividend reinvestment	Only some ETFs offer dividend reinvestment plans. Where offered, the reinvestment must be made in full units.	Most mutual funds offer a dividend reinvestment plan. The purchase of partial units is common.
Liquidity	The volume traded on an ETF is not a measure of liquidity. ETFs are simply a basket of securities. If the underlying securities are liquid, then so is the ETF.	Mutual funds simply trade at the end of the day at the NAVPU of the fund.
Tax efficiency	They are more tax efficient because of the lower portfolio turnover.	They are less tax efficient because of the higher portfolio turnover. Redemption of units might trigger capital gains if enough investors redeem units, forcing the manager to sell off securities to raise cash.
Tracking error	There is a potential for tracking error, but ETFs generally have the lower risk.	There is a potential for tracking error, and mutual funds generally have the higher risk.

TAXATION OF INVESTORS IN EXCHANGE-TRADED FUNDS

6 | Summarize the taxation impacts of investing in ETFs.

Investors holding an ETF in a non-registered, taxable account may be taxed in two ways: on distributions from the ETF fund and on the proceeds of a sale of the ETF.

DISTRIBUTIONS

Distributions from ETFs can be classified under the following three categories:

- Dividend and interest distributions
- Capital gains distributions
- Non-taxable distributions

These three different categories are briefly described below.

DIVIDEND AND INTEREST DISTRIBUTIONS

The individual shares held within an equity ETF pay dividends that are received by the ETF. Similarly, fixed-income ETFs receive interest on their investments in bonds and other debt obligations. Distributions by the ETFs to investors out of the ETF's dividend and interest income, net of fees, are generally treated as ordinary income to the investors. However, if the ETF pays a distribution out of dividends received from Canadian companies, investors can treat that distribution as if it were a dividend from a Canadian company. For Canadian residents, distributions from Canadian companies qualify for a lower effective tax rate than those of non-Canadian companies.

Distributions from an ETF are typically paid in cash, either monthly, quarterly, or annually. Generally, the greater the income generated in

the fund, the higher the distribution frequency.

CAPITAL GAINS DISTRIBUTIONS

The following two factors determine the size of any ETF's capital gains distribution in a given year:

- The net of the fund's current capital gains, less any capital losses, plus specific gain allocations (e.g., to a specific institutional investor)
- Any amount from the Capital Gains Refund Mechanism (CGRM), a method recognized by the *Income Tax Act* that gives preferential treatment to capital gains generated by redemptions

DID YOU KNOW?

The CGRM is a formula devised to prevent double taxation of capital gains in a mutual fund or ETF. Typically, when a fund sells investments that it holds, any accrued capital gains flow through to the investors and are taxed in their hands. The CGRM is based on the recognition that those gains can be subject to taxation twice over as follows:

- Once when investors redeeming their units realize a taxable capital gain
- Again, when the fund sells investments to cover the cost of the redemptions, thus also realizing a taxable capital gain

The CGRM allows the fund to retain some of its realized gains generated by redemptions, rather than distributing them to investors. The fund does not pay tax on those gains in that taxation year.

In most cases, it is more efficient for an ETF to distribute its realized capital gains by issuing more units, rather than by paying a cash distribution. At year end, the ETF issues new units to its investors

that have a value equal to the amount of the capital gains distribution. It then immediately consolidates its units, so that Canadian resident investors hold the same number of units as they did before the distribution. This process is generally known as *reinvested phantom distributions* (or, reinvested capital gains distributions).

This type of capital gains distribution is still taxable to investors in the same way as a cash distribution. However, the investors' adjusted cost base (ACB) of their units is increased by the amount of this in-kind distribution. If the investor were to sell the ETF units, the higher ACB would reduce the amount of any capital gain they would otherwise realize on the sale.

NON-TAXABLE DISTRIBUTIONS

In some cases, an ETF may distribute an amount that is not taxable to the investors, such as a return of invested capital (ROC), for example. However, such a distribution decreases the ACB of the investor's units. If the investor were to sell the ETF units, the lower ACB would increase the amount of any capital gain that would otherwise be realized on the sale.

For example, accounting methods, combined with market conditions, may transform some of the yield paid out to be classified as ROC. This could happen even if the product provider pays only a sustainable distribution. Such instances are common to any pooled investment where the unitholder base fluctuates over time. This fluctuation makes it impossible to accurately link revenue earned from dividends and income to a changing number of investors.

This consideration generally applies to the ETF industry as a function of fund growth. An ETF aims to maintain a payout close to the index or market payout, net of fees. When it receives a subscription, it receives the cash component equal to the outstanding income on the fund, in addition to the basket of securities that represent the portfolio. The ETF then pays out the

cash components received as part of its distribution to maintain the ETF's yield. This payout results in a small amount of beneficial ROC.

PURCHASE AND SALE OF EXCHANGE-TRADED FUNDS

As with any security held by an investor, there are tax implications to buying and then selling an ETF. A capital gain occurs when the ETF is sold for more than its ACB, net of any selling costs such as commissions. Of these gains, 50% is taxable.

As discussed earlier, any in-kind capital gains distribution that the ETF investor receives increases that investor's ACB by the amount of the distribution. This adjustment may be handled by the dealer member where the investor's account is held. The capital gain distribution, by adding to the investor's ACB, results in a lower capital gain when the ETF is sold.

A capital loss is generated when the ETF is sold for less than its ACB. Capital losses can be deducted from capital gains in the same taxation year, carried back three years to be applied against gains, or carried forward indefinitely.

INVESTMENT STRATEGIES USING EXCHANGE-TRADED FUNDS

7 | Identify the investment strategies involving ETFs.

In addition to their general uses, such as diversification and targeted exposure, ETFs can play more complex roles in an investment portfolio. When using ETFs to implement investment strategies, you should also consider the specific trading characteristics of these securities.

TIPS FOR TRADING EXCHANGE-TRADED FUNDS

When placing trades in ETFs, consider the following general trading tips:

- Use limit orders to attain free protection from sudden price movements.
- For large trades, place large portions of the trade at once, so that the designated broker understands the need to create new ETFs to meet the demand. Unlike stocks, where a large trade can be executed in small portions at a time, there is limited advantage to doing this for an ETF trade.
- Avoid trading ETFs when the market for their underlying securities is closed. For example, European and global ETFs should be traded in the morning, while European markets are open. East Asian and emerging markets ETFs are difficult in this respect because most major global markets are closed during North American trading hours, except for Latin American markets.
- Be careful when trading in ETFs where any major underlying holding is halted based on news or a corporate action. In such situations, spreads tend to widen.

MORE COMPLEX EXCHANGE-TRADED FUND ROLES

Table 19.2 provides a brief introduction to some of the more complex roles that ETFs can play in an investment portfolio.

Table 19.2 | Investment Strategies Using Exchange-Traded Funds

Strategy	Purpose

Core and satellite portfolio construction	**Core holdings** are typically passive ETF holdings intended to provide the majority of returns; **satellite holdings** are more focused on riskier sector ETF holdings. Satellite holdings are used to boost returns above the core asset returns.
Rebalancing	ETFs can provide a simple and liquid way to rebalance the asset allocation without affecting the core portfolio holdings. A small allocation to domestic and international equity and fixed-income ETFs provides an efficient way to rebalance across the asset class when needed.
Tactical asset allocation	Investment managers can use ETFs as a tool to gain quick, diversified exposure to the targeted asset class, while instantly exiting the previous holding. With today's vast choice of ETFs, investors and advisors can use them as the primary tool to implement tactical shifts in a portfolio.
Cash management	ETFs allow investors to temporarily park their money in the stock market until they make a long-term investment decision.
Exposure to once hard-to-access markets	With ETFs having expanded into offering hard-to-access classes, new levels of portfolio optimization have become available.
Tax loss harvesting	ETFs are useful in harvesting tax losses on an investment; they can be used to maintain exposure to a sector while respecting Canada Revenue Agency's superficial loss rules. As long as the ETF purchased is not identical to an asset sold, the ETF can be used as a substitute for the asset.

(Superficial loss rules are covered in a later chapter in this course.)

OTHER RELATED PRODUCTS

8 | Define mutual funds of ETFs and exchange-traded notes (ETNs).

In this section, we briefly discuss two other types of ETF structure.

MUTUAL FUNDS OF ETFs

A type of mutual fund that holds a portfolio of ETFs (rather than stocks and bonds) has emerged, and many such funds are now offered. Combining the benefits of mutual funds and ETFs, mutual funds of ETFs make up one of the fastest growing segments within the mutual fund industry. They have the benefit of PACs and SWPs, in addition to advisor compensation options that are standard with most mutual fund offerings. The advisor compensation does reflect a higher cost than with ETFs. However, these products tend to average 0.5% lower in MER than traditional mutual funds, which represents a significant cost savings.

With a number of ETFs packaged into one investment vehicle, the investor has the benefit of automatic rebalancing without the costs of trading the ETF. These portfolios can be static, where the asset mix is held consistent, or tactical, where the portfolio manager selects the ETF holdings based on personal preference.

EXCHANGE-TRADED NOTES

Some investors and advisors confuse **exchange-traded notes** (ETN) with ETFs. They do have some similarities. For example, they both trade on an exchange and they both give investors exposure to

an underlying asset. However, they are very different investment vehicles.

ETNs are not investment funds—they are debt obligations issued by a bank. These securities promise to pay investors a return on their investment based on the performance of an index or other benchmark. In exchange for the guarantee of delivering the total return of the underlying asset, ETNs charge an annual fee.

Unlike ETFs, ETNs do not have tracking error risk because of the above guarantee—the bank issuing them promises to pay a return based on the underlying asset. However, the bank does not guarantee investment performance. If the underlying asset decreases in value, so will the ETN.

Another major difference from ETFs is that ETNs face credit risk—that is, the risk that the issuer will default on the note or that the market price of the ETN dislocates from the NAV because of increased credit risk concerns regarding the issuer. ETFs do have some counterparty credit risk, if they are synthetically constructed.

Finally, ETNs can face call or early redemption risk from the issuer, which may adversely impact the ETNs' value.

OVERVIEW OF ETFs AND ETF FEATURES AND TYPES

Can you identify some of the features and types of exchange-traded funds and explain how they compare to other types of investments? *Complete the online learning activity to assess your knowledge*.

CASE SCENARIO

Can you answer Tariq's questions about ETFs and mutual funds? *Complete the online learning activity to assess your knowledge.*

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, we discussed the following key aspects of ETFs:

- ETFs are regulated under either of two national instruments, depending on their structure: NI 81-102, which limits the use of leverage and derivatives; and NI 81-104, which allows for more aggressive strategies. ETFs must produce and file an ETF Facts document addressing trading and pricing characteristics. The ETF creation and redemption process involves the designated broker buying and selling ETF units and exchanging them with the ETF provider for the ETF's underlying securities. This process, which can also work in reverse, is known as an *in-kind exchange* because a basket of stocks is exchanged for ETF units, rather than cash. Investors benefit from lower trading costs and lower taxes.
- The following ETFs are a few of the various types available on the market:
  - Standard (index-based), whereby the reference index on which the ETF is based can be either fully replicated or approximately constructed through sampling
  - Rules-based, which are constructed based on a defined methodology to achieve a specific objective
  - Synthetic, which are constructed with derivatives such as swaps to achieve the return effect of the index
  - Leveraged, which use derivatives such as swaps to achieve the leveraged return effect

- The following risks are specific to ETFs, among others:
  - Risk related to tracking error
  - Concentration risk
  - Risk related to the composition of the ETF
  - Risk related to securities lending
- In comparing ETFs and mutual funds, you should consider management style, transparency of holdings, costs, liquidity, and tracking error, among other factors. For example, in comparison to mutual funds, ETFs tend towards more passive management, holdings tend to be more transparent, and tracking error is lower.
- Distributions from ETFs are classified as dividend and interest distributions, capital gains distributions, and non-taxable distributions. Distributions out of dividend and interest income are generally treated as taxable income to the investors. Two factors determine the size of an ETF's capital gains distribution:
  - The net of the fund's current capital gains, less any capital losses, plus specific gain allocations
  - Any amount from the CGRM, which reduces the tax paid on capital gains generated by redemptions
- Mutual funds of ETFs hold a portfolio of ETFs, rather than stocks or bonds, which give the benefit of automatic rebalancing without the costs of trading the ETF. They also offer PACs and SWPs. Advisor compensation reflects a higher cost than with ETFs, but lower than traditional mutual funds.
- ETNs differ from ETFs in several ways; they are debt obligations issued by a bank that promise, for an annual fee, to pay investors a return based on the performance of an index or other benchmark.

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 19 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 19 FAQs.

Alternative Investments: Benefits, Risks, and Structure 20

CHAPTER OVERVIEW

In this chapter you will learn about alternative investments, including hedge funds and alternative mutual funds. You will learn about the benefits and risks of investing in these types of products, and you will learn the structure of alternative investments and how they differ from conventional mutual funds.

LEARNING OBJECTIVES	CONTENT AREAS
1 | Explain what an alternative investment is.	**Introduction to Alternative Investments**
2 | Identify the main categories and sub-categories that comprise the alternative investment universe.	
3 | Discuss the benefits of adding alternative investments to a portfolio.	**Investing in Alternatives – Benefits and Risks**
4 | Describe the risks of investing in alternatives.	
5 | Describe the main structural	**Alternative**

	features of hedge funds, alternative mutual funds, fund of hedge funds, and ETFs.	**Investment Structures**
6 |	Describe the similarities and differences between alternative mutual funds, hedge funds, and conventional mutual funds.	**Comparing Alternative Mutual Funds with Conventional Mutual Funds and Hedge Funds**

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

accredited investor

alternative investment

alternative assets

alternative mutual fund

drawdown

efficient frontier

first-order risk

fund of hedge funds

hedge fund

high-water mark

hurdle rate

minimum investment exemption

offering memorandum

offering memorandum exemption

operational risk

product transparency

second-order risk

INTRODUCTION

Hedge funds have been a popular alternative investment vehicle for many years. Historically, they have been available only to high-net worth and institutional investors. Retail investors in Canada have had very limited opportunities to gain access to the strategies employed by hedge funds through closed-end funds and commodity pools. However, the October 2018 regulatory approval of alternative mutual funds, a new type of mutual fund that employs alternative strategies, expanded the retail investor's access to these strategies.

Based on assets under management, alternative strategies constitute a significant portion of the alternative investment universe. More importantly, they constitute the vast majority of the assets under management in the alternative mutual fund market.

In this chapter, we discuss the characteristics of hedge funds and alternative mutual funds. You will learn how these managed products are structured and regulated.

INTRODUCTION TO ALTERNATIVE INVESTMENTS

1 | Explain what an alternative investment is.

2 | Identify the main categories and sub-categories that comprise the alternative investment universe.

Alternative strategies are categorized both by type of strategy and by the type of structure. Generally, alternative strategies can be found in exempt market alternative funds (i.e., hedge funds), alternative mutual funds (also known as liquid alts), exchange-traded funds (ETFs), and closed-end funds.

WHAT ARE ALTERNATIVE INVESTMENTS?

Alternative investments are asset classes that are different from the traditional three broad asset classes of equities, bonds, and cash. Although there is no standard definition nor definitive list of alternative investments, they are generally categorized for portfolio management analysis into three groups:

- alternative strategy funds
- **alternative assets** (i.e., real assets held directly or indirectly such as commodities, real estate, and collectibles)
- private equity.

We describe the main strategies of alternative strategy funds below, and, throughout this chapter and the next, we provide comprehensive explanations of these strategies. We also give brief descriptions of alternative assets and private equity in this section.

DIVE DEEPER

If you would like more detailed information about alternative assets and private equity, consider taking CSI's Alternative Assets and Private Equity Course. This course focuses on commodities, real estate, collectibles, infrastructure, natural resources, and private equity.

ALTERNATIVE STRATEGY FUNDS

Alternative strategy funds have fewer or no regulatory restrictions on the use of short selling, leverage, and derivatives, in contrast to conventional mutual funds. Generally, they also have greater flexibility to invest in illiquid investments. By using these strategies and products, managers are able to generate risk and return results that can be substantially different from those found in conventional funds using bonds and stocks. The same holds true even when the alternative fund and the conventional fund use the same bonds and stocks in their strategies.

The funds' strategies fall into any of three general groups:

Relative value	Relative value strategies attempt to profit by exploiting discrepancies in the pricing of related stocks, bonds, or derivatives.
Event-driven	Event-driven strategies maintain positions in companies currently or prospectively involved in corporate transactions including mergers, consolidations, restructurings, tender offers, shareholder buybacks, and other capital adjustments.
Directional	Directional strategies attempt to profit from anticipated movements in the prices of assets such as bonds, equities, foreign currencies, and commodities.

Within these groups there are various sub-groups, which are covered in the next chapter.

ALTERNATIVE ASSETS

Alternative assets are real assets held directly or indirectly. They have risk-reward characteristics that differ from those of traditional, long-only stock and bond portfolios. The common types of alternative assets are as follows:

Commodities	Commodities are the basic homogenous materials produced and consumed by the world's economies. Some commodities are used mainly for consumption,

	in which case the commodity eventually becomes a product that is consumed. Others are used primarily for investment purposes. Commodities can be accessed using the derivatives markets or by holding them in their physical form. The types of commodities that underlie major world markets include agricultural products, precious and industrial metals, and energy products. Studies, including the famous Ibbotson study, have shown that commodities exhibit low or negative correlation to traditional asset classes and have a positive correlation with inflation. These characteristics support the idea that commodities can exhibit real, inflation-adjusted returns.
Real estate	Real estate refers to land or any of the fixed assets built on it, such as buildings, houses, or factories. Real estate is considered an alternative investment even though it is one of the oldest investment classes. The real estate market is segmented into commercial, industrial, and residential sectors. Real estate becomes a liquid investment when it is securitized – that is, when shares in a pool of real estate assets, called a real estate investment trust (REIT), are resold to investors. Physical real estate and securitized real estate are two key forms of real estate as an investment. Many investors hold physical real estate in the form of primary or secondary residences or as investment properties.
Collectibles	Collectibles are rare and unique manufactured or handcrafted objects that are desirable to individuals. They include fine art, classic automobiles, rare stamps, and coins. Investing in fine art is traditionally the realm of the high-net-worth world. It has long consisted of building a collection and leaving it in a will as an inheritance or a saleable asset.

Infrastructure	Infrastructure investment is an investment opportunity that has gained the interest of both investment managers and investors. Infrastructure refers to such projects as roads, ports, airports, and water works. Over time, infrastructure deteriorates, and the need arises to repair or replace aging structures and to build new projects. Infrastructure needs have increased dramatically because of globalization and the growing middle class in non-Western nations. Investments in infrastructure typically entail massive amounts of capital with a small number of investing partners.
Natural resources	Natural resources include timberland and farmland. Farmland investors typically enter into agreements with tenant farmers to manage the day–to-day operations of the farm. The investor earns a return on investment from the ongoing sale of crops and, ultimately, through appreciation of the land's value. Farmland investments can be accessed privately through private funds, mutual funds, hedge funds, exchange-traded funds (ETFs), REITs, and publicly traded corporations. Timberland in recent years has proven to be a popular alternative investment due to strong ongoing global demand, moderate volatility, and low correlation with other asset classes. Over time, timber assets controlled by timber investment management organizations (TIMOs) have increased. A number of ETFs have surfaced to facilitate easy access to publicly traded TIMOs that have substantial timber exposure.

PRIVATE EQUITY

Private equity includes the common stock, preferred stock, and debt securities of firms that typically are not publicly traded, though an increasing number of private equity companies are listing on stock exchanges and their shares are publicly traded. Private equity

investments may include leveraged buyouts, growth capital, turnaround investments, venture capital, mezzanine financing, and the purchase of distressed debt. Private equity is covered in greater detail in Chapter 22.

INVESTING IN ALTERNATIVES – BENEFITS AND RISKS

3 | Discuss the benefits of adding alternative investments to a portfolio.

4 | Describe the risks of investing in alternatives.

There are three main reasons why investors would include alternative investments in their portfolio, including diversification, adding alpha, and increasing absolute returns.

WHY INVEST IN ALTERNATIVE INVESTMENTS?

Three main reasons why investors would include alternative investments in their portfolio are summarized below:

To diversify the portfolio	Diversification incrementally decreases risk at a faster rate than returns incrementally decrease.
To add alpha	Alpha is added by incrementally increasing risk-adjusted returns.
To increase the portfolio's absolute return nature	This, in turn, makes the portfolio more resistant to capital erosion in the market.

Note that the term risk in this context refers to both volatility risk, as measured by standard deviation, and drawdown amount. Both are discussed in the next chapter.

DIVERSIFICATION

Efficient diversification is a hallmark of well-constructed portfolios. Most investors have some degree of diversification within their balanced portfolios. However, even a traditionally balanced portfolio can come under stress and must be reevaluated in periods of stock and bond market volatility.

A vast myriad of investments with various risk exposures are available in the alternative investment marketplace. These investments can exhibit low or even negative betas with traditional stocks or bonds and thus can add a level of diversification to an investor's overall portfolio.

Diversification with alternative investments can deliver the following benefits to the investors:

- Reduced volatility through a more stable net asset value (NAV) for the overall portfolio
- Downside protection in periods of market stress through reduced drawdowns
- Greater allowance for leverage, which can offer higher expected returns

DID YOU KNOW?

A well-diversified portfolio carries with it less risk and therefore is able to safely take on more leverage relative to portfolios that are poorly diversified.

ADDING ALPHA

As indicated in Chapter 15, alpha is a measure of the manager's performance. If it is positive, the manager has produced more return than was predicted by his or her beta calculation, which indicates that the manager has added value to the portfolio. The greater the alpha, the more value the manager added, and therefore the better they have performed. On the other hand, an alpha value of zero indicates the manager has achieved only normal performance, meaning that they have

added nothing to the portfolio's value beyond its beta. If alpha is negative, the manager has underperformed for the level of risk taken on.

Alternative investment funds can attract highly skilled managers because of their pay-for-performance compensation structure (discussed later in this chapter). As well, these funds are able to use strategies like short selling, leverage, and products such as derivatives that are limited or unavailable to conventional mutual fund managers. Additionally, alternative managers generally have greater flexibility with respect to investing in less liquid securities, such as private equity, real estate and distressed securities.

Given their expertise and the strategies and investments available to them, alternative managers are generally able to produce higher risk-adjusted returns relative to conventional managers. They are able to do so regardless of the type of strategy employed. Of course, the strategies they use to achieve their objectives differ from conventional strategies. The strategies employed by alternative managers are covered extensively in Chapter 21. Alternative investments allow the investor to move to a higher efficient frontier (see next section) by increasing the number of investment opportunities available, increasing portfolio diversification and risk control, and adding superior risk-return potential to the portfolio. Also, many alternative investments target absolute returns, which means they aim to produce positive returns regardless of market direction.

EFFICIENT FRONTIER

One of an investor's most important decisions to make is the asset allocation or asset mix decision. Studies have shown that between 40% and 90% of a portfolio's volatility can be explained by the asset allocation, rather than security selection.

Modern portfolio theory provides the tool to make the asset allocation decision. By combining various asset classes such as cash, bonds, equities, and non-correlated alternative investments, an investor can construct an efficient portfolio that maximizes the expected return for each level of risk in a combined portfolio. The various asset classes can

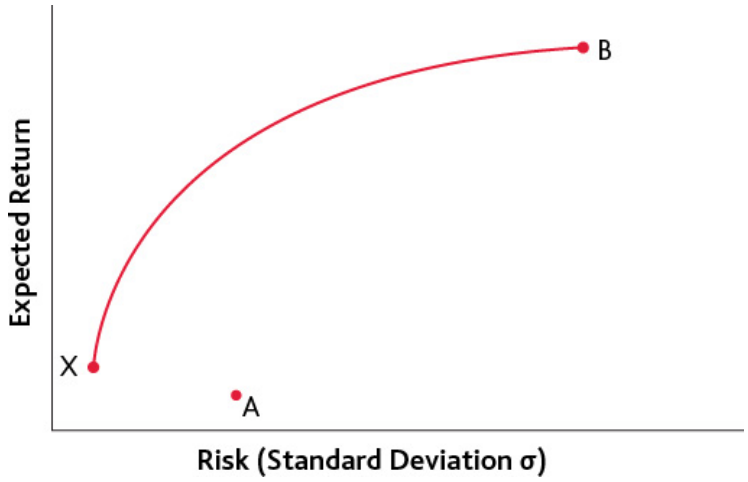
be diversified further through market capitalization, geographic variations, duration, credit quality, currencies, and so forth.

The curve that reflects the most efficient portfolios for all levels of risk is called the **efficient frontier**. All points below the efficient frontier are inefficient in the sense that by moving a portfolio up to the frontier, either risk can be reduced for a similar return potential or return potential can be increased for a similar level of risk.

The efficient frontier is normally shown on a graph and is composed of combinations of assets that combine the lowest level of risk with the highest expected return at that level of risk. Standard deviation, representing risk levels, is measured along the x-axis. Expected portfolio return is measured along the y-axis.

In Figure 20.1, Portfolio A represents a portfolio of 100% bonds in line with its relatively low potential return and low level of risk. Portfolio X represents the combination of two assets available (bonds and equities) that produces the highest rate of return with the lowest level of risk. Portfolio B represents the highest risk-highest return potential attainable, for example, a portfolio of 100% aggressive equities.

Figure 20.1 | Efficient Frontier



Many conservative investors believe that the safest, least risky portfolio would be 100% bonds, represented by Portfolio A.

However, the graph shows that Portfolio X, which in this example consists of 20% stocks and 80% bonds, is superior, because it has lower

risk as well as a higher return potential than Portfolio A. Portfolio X's higher return potential is due to its stock component, which raises the expected portfolio return. Therefore, Portfolio A, while representing a possible asset mix, is not on the efficient frontier.

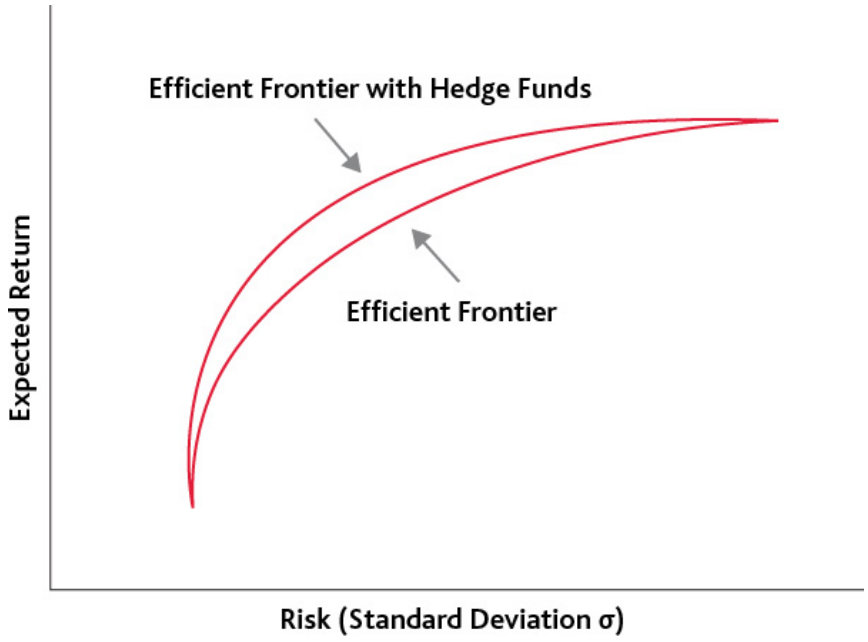
Even though stocks are generally considered riskier than bonds, the fact that stocks have a relatively low correlation with bonds lowers the overall risk of a portfolio with this combination. However, if the portfolio contains more than 20% stocks, the higher risk of the stocks added will overwhelm the benefits of diversification and increase overall portfolio risk, along with the expected returns.

Conservative investors who have avoided stocks could therefore benefit from some stock exposure. If stocks exhibit low correlation to bonds, they can actually lower the risk and potentially increase the return of the combined portfolio, because of the beneficial interaction of two assets with a correlation of less than +1.

The same argument can be applied to alternative investments. By adding an asset class with a low correlation to stocks and bonds, a new frontier is created.

As Figure 20.2 shows, by adding this asset class, a new efficient frontier is created that, at a minimum, gives investors the opportunity to increase their expected return without increasing risk, or to maintain their expected return at a lower level of risk. The efficient frontier with, for example, hedge funds is preferable to the efficient frontier without hedge funds, because it offers additional portfolio diversification possibilities.

Figure 20.2 | Efficient Frontier with Hedge Funds



THE EFFICIENT FRONTIER

How well do you know the efficient frontier? *Complete the online learning activity to assess your knowledge.*

EMPIRICAL EVIDENCE

Although there is variance between the different alternative strategies over the past 15 years until the end of 2019, they have generally outperformed traditional investments when traditional investments were performing poorly, such as during the 2004 – 2012 period. Conversely, hedge funds performed relatively poorly when traditional investments were performing very well during the 2013 – 2019 period.

However, and perhaps more importantly, hedge funds performed very well, relatively speaking, during times of extreme stress in the traditional markets. This was especially true between 2008 and 2010 and during the first half of 2020. This fact reveals the ability of hedge funds to reduce overall portfolio risk by stabilizing the portfolio's overall NAV. Hedge funds also provide some degree of downside protection to the portfolio's

NAV, particularly during periods when traditional investments are under extreme stress.

WHAT IS RISK?

When investment professionals refer to risk, they must contend with several popular measures. This is applicable when examining both traditional (long only) investment strategies and alternative investment strategies. Unfortunately, no single risk measure is perfect. Each risk measure must be utilized with a good understanding of its underlying assumptions and therefore limitations.

The most frequently used measure of investment risk for alternative investment strategies is volatility as measured by standard deviation. It is used in two portfolio management applications:

1. Deciding on portfolio allocation to alternative investments utilizing an efficient frontier (discussed immediately above), and
2. When calculating risk-adjusted return measures such as the Sharpe ratio, first introduced in Chapter 16 of this course.

The second most popular measure of investment risk used for alternative investments is the fund's **drawdown** amount. The drawdown amount is essentially the maximum percentage decline in the alternative fund's NAV over a specified time period. Drawdown amount will be discussed in more detail later in this course.

ALTERNATIVE STRATEGY RISK DRIVERS

There are a number of sources of risk involved in alternative strategy funds, all of which are described below. However, alternative mutual fund regulations have limited some of the first- and second-order risks in comparison to hedge funds.

In this section, we explain the differences between first-order risk (or directional risk) and second-order risk (such as liquidity risk, default risk, and leverage risk). We also discuss operational risk (or business risk), which is a third category of risk not specifically related to the alternative strategy fund's strategies. The terms first-order risk and second-order risk are used to classify risks related to an alternative strategy fund's

investments and trading processes. These risks directly affect such a fund's overall risk and return.

FIRST-ORDER RISKS

First-order risks relate to the exposure to changes in the general direction of equity, fixed income, currency, and commodity markets. The source of risk is the market itself, and the risk is systematic, meaning that it cannot be reduced through diversification. First-order risk does not affect relative value strategies or event-driven strategies to any significant degree. It does, however, affect directional strategies, which, by definition, are based on an alternative strategy fund manager's views about the direction of different markets, interest rates, commodity prices, and currencies.

SECOND-ORDER RISKS

Second-order risks include liquidity, leverage, deal break, default, counterparty, trading, concentration, pricing model, and trading model risks. Unlike first-order risk, these risks are not related to the market, but to other aspects of trading, such as dealing, implementing arbitrage structures, and pricing illiquid or infrequently valued securities. Second-order risks are defined in Table 20.1.

Table 20.1 | Definition of the Second-Order Risks

Second-Order Risk	Definition	Nature of Risk
Liquidity risk	The risk that the manager will be unable to unwind a position quickly and at a price close to the most recent price	To unwind illiquid positions quickly, alternative strategy funds may be forced to accept prices that are significantly different from the most recent prices. Alternatively, it may take a fund manager some time to unwind illiquid positions at fair prices.
Leverage risk	The risk of loss	All else being equal, higher

	on a position financed with borrowed money	leverage results in higher risk because it magnifies both upside and downside returns. Leverage is not inherent in any strategy. The decision to use leverage is a choice made by the alternative strategy fund manager.
Deal breakage risk	The risk of loss from the failure of two companies to complete an announced merger	Merger arbitrage funds specialize in taking positions based on expected deals or mergers between companies. The strategy may result in losses if the merger is not completed as expected.
Default risk	The risk that the issuer of a debt security will not meet its obligations related to the payment of either or both the interest or principal	Debt securities represent contractual obligations to pay interest and principal. Losses can result if an issuer defaults on these obligations.
Counterparty risk	The risk that the counterparty to an over-the-counter (OTC) agreement will not fulfill its obligations.	Over-the-counter agreements are private transactions between two counterparties. Alternative strategy funds may suffer losses if the counterparty to an OTC agreement does not fulfill its obligations.
Trading risk	The risk of receiving a poor fill price based on unexpected	Unexpected delays in getting an order filled may result in a price that is worse than expected.

	delays in execution	
Concentration risk	The risk of loss from an adverse change in the price of a position with a relatively large weight in the portfolio	The higher the concentration of a single position or security in a portfolio, the greater the risk to the portfolio of an adverse event that affects the security.
Pricing model risk	The risk that the output of a pricing model is incorrect because the assumptions on which the model is based are incorrect	Many hedge funds value their complex or illiquid positions using a model rather than a market price. These models are based on assumptions, which can lead to erroneous valuations if the assumptions are incorrect.
Trading model risk	The risk of loss related to the failure of systematic trading models in the current market environment	Some alternative strategy fund managers base their trading decisions on a systematic model that was tested on historical data. Losses may result if these models are unsuccessful in real time.

OPERATIONAL RISK

Operational risk relates to the alternative strategy fund as a business entity. It stems from the fact that alternative strategy funds can be small, newly created businesses that depend on one or more high-profile managers for their success. Such organizations are highly focused on promoting and supporting the skills of the manager or managers. However, they may lack the organizational depth, managerial talent, and strategic planning capabilities necessary to ensure growth, or even survival. For most alternative strategy funds, operational risk stems from

potential system failures, as well as faulty settlement, reporting, and accounting procedures. Operational risk is significant and must be addressed through due diligence.

ALTERNATIVE INVESTMENT STRUCTURES

5 | Describe the main structural features of hedge funds, alternative mutual funds, fund of hedge funds, and ETFs.

For Canadian investors there are different ways to gain access to alternative strategies; hedge funds, liquid alternatives, ETFs and closed-end funds. The types of strategies they use can be similar. However, there are significant differences in their product features and regulatory restrictions and requirements for distribution to investors. The following sections focus on hedge funds, liquid alternatives, funds of hedge funds, and ETFs. Closed-end funds are covered in greater detail in Chapter 22.

EXEMPT MARKET ALTERNATIVE FUNDS (HEDGE FUNDS)

Hedge funds are lightly regulated pools of capital with managers that have great flexibility in their investment strategies. In Canada, as in many other countries, hedge fund managers are not constrained by the rules that apply to standard mutual funds. They can take large short positions, use leverage and derivatives for speculation, perform arbitrage transactions (which exploit perceived price differentials to make a profit), and invest in almost any situation in any market where they see an opportunity to achieve positive returns.

Because a hedge fund manager has tremendous flexibility in the types of investment strategies he or she can employ, their ability to select superior investments within the targeted strategy and relevant markets is more important for hedge funds than for almost any other managed product.

Despite the name, some funds do not hedge their positions at all. It is best to think of a hedge fund as a type of fund structure, rather than a

particular investment strategy.

Hedge funds do not have a unique legal structure (they may be structured as trusts or limited partnerships, for example) and their investment objectives and investor suitability vary depending on the manager's choice of strategy and the targeted risk-return level. Some hedge funds are conservative, while others are more aggressive.

The recent regulatory changes in Canada permitting the inclusion of alternative investment strategies under modified mutual fund regulations does not impact alternative investment products offered under existing regulatory exemptions for exempt/accredited investors and the minimum initial investment exemption (i.e., hedge funds). Private placement product structures are, and will likely remain, as the primary type of investment vehicle for both institutional and high net worth investors who are comfortable investing through limited partnerships.

WHO CAN INVEST IN HEDGE FUNDS?

Securities regulators permit the sale of securities without a prospectus, but only under certain conditions and only to investors who meet exempt investor qualifications. The exempt market is composed of both institutional investors and individual investors.

There are three common prospectus exemptions allowed by the security regulators.

- Minimum investment exemption;
- Accredited investor exemption;
- Offering memorandum exemption.

Typically, hedge fund investors who are individuals must qualify under the accredited investor exemption.

MINIMUM INVESTMENT EXEMPTION

The **minimum investment exemption** allows the sale of securities without a prospectus to non-individual investors who make a prescribed minimum investment. National Instrument 45-106 (NI 45-106) sets this minimum at $150,000 across all jurisdictions in Canada.

ACCREDITED INVESTOR EXEMPTION

The securities commissions apply different criteria for qualification as **accredited investors** by institutional investors and individual investors. The key qualifications for the two are as follows:

Institutional	Generally includes entities such as pension funds, trust companies and corporations with net assets of at least $5 million.
Individuals	• An individual who, either alone or with a spouse, beneficially owns financial assets with an aggregate realizable value (before taxes, but net of related liabilities) that exceeds $1 million. Financial assets would include cash, deposits, bonds, and public equities, but would not include real estate. • An individual whose net income before taxes exceeded $200,000 (or exceeded $300,000 if combined with a spouse's income) in each of the two most recent years, and who has a reasonable expectation of exceeding that same income level in the current year. • An individual who, alone or with a spouse, has net assets (which would include real estate, and which is again net of any related liabilities) worth at least $5 million. • Persons relying on the accredited investor exemption to distribute securities to this type of investor must obtain a completed and signed risk acknowledgement form from the individual accredited investor.

OFFERING MEMORANDUM EXEMPTION

If an issuer prepares an offering memorandum in the prescribed form and it is delivered to the purchaser before the purchase, a prospectus is

not required. The **offering memorandum** must follow a prescribed form and provide for the rights of rescission or a right of action, if these are not available by regulation. Included in the expected prescribed disclosure is information regarding the issuer and audited financial statements.

In some provinces and territories (Manitoba, Northwest Territories, Nunavut, P.E.I., and Yukon), the **offering memorandum exemption** is subject to a limit of $10,000, unless the purchaser is an eligible investor.

In other provinces (Alberta, New Brunswick, Nova Scotia, Ontario, Quebec and Saskatchewan) the exemption is subject to similar monetary limits as noted below and also subject to an overall purchase limit on an annual (preceding 12 months) basis (i.e., the amounts noted below must not have been exceeded over the last 12 months in order for the exemption to apply):

- In the case of a purchaser that is not an eligible investor, $10,000;
- In the case of a purchaser that is an eligible investor, $30,000; and
- In the case of a purchaser that is an eligible investor and that received advice from a portfolio manager, investment dealer or exempt market dealer that the investment in question is suitable, $100,000.

An eligible investor has a lower financial threshold than an accredited investor but requires a confirmation of suitability from an eligibility advisor who is a registered investment dealer.

HEDGE FUND FEATURES

Hedge funds have unique features in their structure that other investment funds do not have. Some of those unique features are described below.

INCENTIVE FEES

In addition to management and administration fees, hedge fund managers often charge an incentive fee based on performance. Incentive fees are usually calculated after management fees and expenses are deducted, rather than on the gross return earned by the manager. This

detail can make a significant difference in the net return earned by investors.

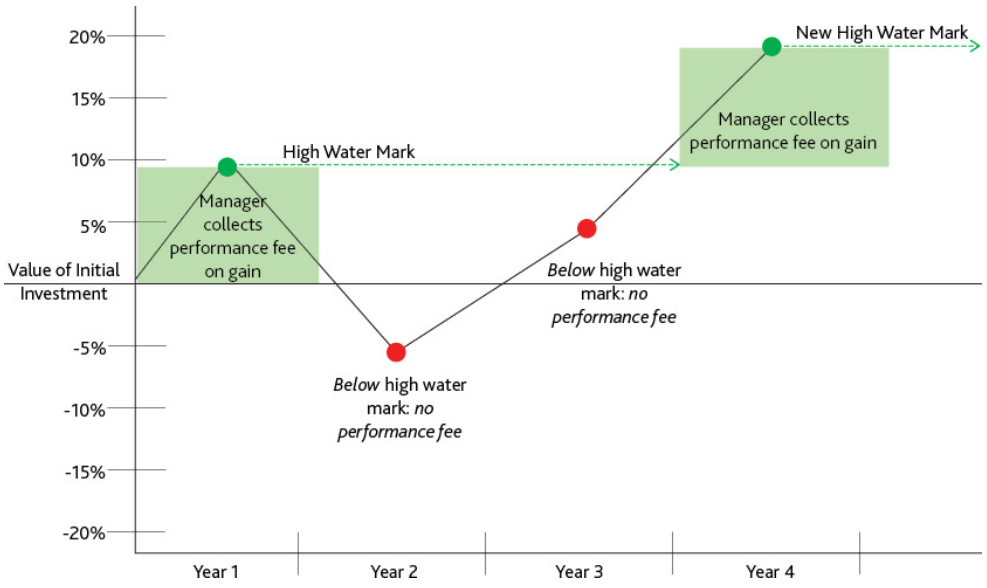
Incentive fees are designed to attract top money managers and then to provide them with an incentive to perform well. Some investors, however, see a risk with incentive fees in that managers may be driven by self interest rather than the interest of the fund. For example, managers with no investment stake in the fund they are managing have only upside return potential and no downside risk (outside of not earning their performance fee). In that position, they may be tempted to take riskier bets.

The calculation of incentive fees can be subject to a high-water mark or a hurdle rate, or both. These two measurements are defined below.

High-water mark	A **high-water mark** ensures that a fund manager is paid an incentive fee only on net new profits. Basically, a high-water mark sets a bar (based on the fund's previous high value) above which the manager earns incentive fees. This feature prevents the manager from double-dipping on incentive fees following periods of poor performance.
	For example, suppose a new hedge fund is launched with a net asset value per unit of $10. At the end of the first year, the fund's net asset value per unit rises to $12. For the first year, the manager is paid an incentive fee based on this 20% performance. By the end of the second year, the fund's net asset value per unit has fallen to $11. The fund manager is paid no incentive fee for the second year and will not be eligible to receive an incentive fee until the fund's net asset value per unit rises above $12. See Figure 20.3 below. It is important to determine whether the high-water mark is perpetual over the fund's life, or whether the manager has the authority to reset the level annually.
Hurdle rate	A **hurdle rate** is the rate a hedge fund must earn before its manager is paid an incentive fee.

For example, if a fund has a hurdle rate of 5%, and the fund earns 20% for the year, incentive fees will be based only on the 15% return above the hurdle rate, subject to any high-water mark. Hurdle rates are usually based on short-term interest rates.

Figure 20.3 | Fund Performance for Investor (Rate of Return on Initial Investment – %)



Note: Shaded regions represent portion of fund return that results in a performance fee.

If a fund has both a hurdle rate and a perpetual high-water mark, incentive fees are paid only on the portion of the fund's return above the return needed to reach the perpetual high-water mark plus the hurdle rate.

EXAMPLE

A hedge fund must earn a 10% return this year to reach its perpetual high-water mark. The fund also has a 5% hurdle rate. In this case, incentive fees will be paid only on the portion of the fund's return above 15%
(calculated as 10% + 5%).

HEDGE FUND LIQUIDITY

Investors in hedge funds must understand the potential illiquidity that is inherent in many of these products. Although the degree of liquidity differs with the nature of the alternative strategy being employed by the hedge fund manager, all hedge funds are less liquid than say mutual funds (or alternative mutual funds) because they are priced and traded less frequently. Unlike mutual funds which post a daily net asset value (NAV), hedge funds typically are priced at the end of each month, meaning that no money can be added to or withdrawn from the fund except at the end of each calendar month. As well, in order to give the hedge fund manager time to liquidate positions to fund an investor's withdrawal (without creating a significant market impact or trading cost) some funds have monthly subscriptions and quarterly redemptions with 30 days' notice required before redemption.

In addition to these types of liquidity dates, some hedge funds, because they invest in illiquid assets and can take large positions in a small number of issuers, have an initial lockup period (one to two years is common) during which initial investments cannot be redeemed. In a hard lockup period, investors are not allowed to redeem their interests during the lockup period for any reason. In a soft lockup period, investors can redeem their investments before the end of the lockup period by paying a fee.

In addition to the above, some hedge funds may delay redemption requests even after investors have satisfied the lockup period. For example, many debt issues traded at extremely low prices during the 2008 financial crisis. Rather than allow hedge fund investors to redeem their investment, which would have forced hedge fund managers to sell these bonds at distressed prices, many credit-focused hedge funds delayed the redemption requests of their investors.

Because of their complex strategies and limited liquidity, hedge funds have historically been considered too risky for retail investors, in contrast to conventional mutual funds, which maintain diverse, long-only portfolios of publicly traded securities and provide daily liquidity. Alternative mutual funds, which are discussed later in this chapter, are designed to offer retail investors some of the benefits of hedge funds while maintaining the liquidity and transparency of conventional mutual funds.

FUND TRANSPARENCY

Investors and their advisers rightfully expect a certain level of ongoing information regarding their investment products. This information is commonly referred to as **product transparency**. Product transparency involves three main factors:

- The level of detail provided
- The frequency of communication (i.e., daily, monthly, quarterly)
- The time between the fund reporting date and the date when the information is communicated to investors.

For example, the nature and minimum level of fund transparency for conventional mutual funds and ETF investment products is stipulated in the distribution document (prospectus) for these two popular investment products respectively. For example, in terms of timeliness, ETF holdings are communicated with a one-day delay whereas conventional mutual funds are required to provide a detailed fund holding report on a quarterly basis. For hedge funds sold in the exempt marketplace, information regarding fund holdings and activity might only be reported semi-annually, and often with a 90-day delay. For exempt funds, information regarding the fund's degree of transparency is provided in the hedge fund's offering memorandum (which is not subject to regulatory restrictions).

INVESTOR PROTECTION

Rights of withdrawal permit a conventional mutual fund investor to cancel their investment without penalty within a two-business day period after they have received confirmation of their investment. This right also applies to investments in alternative mutual funds. Rights of withdrawal associated with the sale of hedge funds are stipulated in the fund's offering memorandum and associated purchase agreements. ETF purchases do not have a right of withdrawal.

Similarly, the right of rescission gives investors the right to rescind their purchase if the Fund Facts or simplified prospectus contains misrepresentations. This right applies to both conventual and alternative

mutual funds but only applies to hedge funds if stipulated in the offering memorandum.

ALTERNATIVE MUTUAL FUNDS (LIQUID ALTS)

BACKGROUND

Until recently, Canadian retail investors only had access to alternative investment strategies through a very limited selection of closed-end funds and commodity pools. Commodity pools were a type of fund in which managers were allowed greater, in comparison to conventional mutual funds, but still limited use of derivatives and leverage. Commodity pools were not allowed to short sell non-derivative related securities. This limited use has been unfortunate, particularly in market downturns, as some alternative investment strategies have been proven to provide good diversification away from traditional long-only investments in equities and bonds.

This limited access to alternative strategies however has recently changed, with the Canadian Securities Administrators (CSA) modernization of Investment Product Regulation (NI 81-102). Included in the modernized regulation are provisions that will allow retail investors increased access to alternative strategies through a type of mutual fund known formally in the regulation as **alternative mutual funds**. Informally these funds are referred to as liquid alternatives or liquid alts. Regulators have essentially replaced commodity pools with alternative mutual funds and also increased the allowable activities of this type of fund.

DID YOU KNOW?

Commodity Pools that were in existence prior to the regulatory change automatically became alternative mutual funds when the CSA modernization amendments came into force on January 3, 2019. They had until July 4, 2019 to comply with the new rules applicable to alternative mutual funds.

In general, these new rules for alternative mutual funds provide for greater usage of derivatives, leverage, and short selling than

conventional mutual funds as well as a greater single issuer concentration. The alternative mutual funds still have limitations to each of these and therefore cannot use these to the extent they could be used by hedge funds. As well, alternative mutual funds have the same restrictions on investing in illiquid investments as conventional mutual funds.

In the United States, the Securities and Exchange Commission (SEC) revised mutual fund regulations to include alternative investment strategies in 2004. Both the number of liquid alt funds and their respective assets under management grew very slowly from the time of regulatory change to 2008. However, immediately after the 2008 financial crisis, US retail investors' investment in liquid alt funds grew dramatically as they began to appreciate the diversification and capital preservation benefits that are typically demonstrated by these funds.

Liquid alts have also caught on in many other parts of the world. At the end of 2019, Morningstar counted 2,663 liquid alternative products (including mutual funds, ETFs, and closed-end funds), which hold $882 billion in assets, compared to $5 trillion invested overall in alternatives.

Historically, conventional mutual funds and alternative investment vehicles such as hedge funds differed in many aspects. Here are a few examples of the differences:

- Conventional mutual funds offered daily liquidity while hedge funds offered very limited liquidity.
- Conventional mutual funds offered good transparency while hedge funds offered very limited transparency.
- Conventional mutual funds attempted to earn the highest relative return versus its peers while hedge funds strived to earn absolute (positive) returns regardless of market conditions.

Alternative mutual funds offer an investment product that, for the most part, is a combination of the best aspects of conventional mutual funds and alternative investments. Alternative mutual funds provide retail investors with the following benefits:

- Access to investment strategies that were previously largely available only to exempt investors

- The goal of earning absolute returns during all phases of a market cycle
- The transparency, daily liquidity, and investor protection rights that are associated with conventional mutual funds (despite the ability of alternative funds to engage in riskier and potentially higher return strategies)
- Considerably lower minimum investment required in comparison to hedge funds
- Low fees, generally, in comparison to hedge funds

DID YOU KNOW?

Alternative mutual funds tend to have lower fees than those charged on hedge funds despite similar performance fee structures with respect to high-water marks and hurdle rates. According to the Alternative Investment Management Association (AIMA), the average performance fee for alternative mutual funds is around 8%, compared with fees as high as 10%-to-20% for hedge funds. Both hedge funds and alternative mutual funds also charge management fees, generally in the 1%-to-2% range.

There are trade-offs to investing in liquid alternatives. Not all alternative strategies (which are discussed in the next chapter) can be offered within a liquid alternative structure. Some strategies require the manager to have a lockup period that aligns the liquidity provided to the client with the time horizon of fund's strategies. Liquid alternatives need to maintain some liquidity since they offer daily redemptions. As with conventional mutual funds, liquid alternatives can only invest up to 10% of the fund's NAV in illiquid assets (based on NI 81-102).

Illiquid assets are defined in the regulation as a "portfolio asset that cannot readily be disposed of through market facilities of which common quotations in public use are widely available at an amount that at least approximates the amount at which the portfolio asset is valued in calculating NAV per security of the investment fund".

Some examples of illiquid assets include penny stocks, ownership interests in private companies, collectibles like art and antiques, and

some types of bonds and debt instruments.

Based on these factors, a hedge fund's potential return, in most cases, is higher than alternative mutual funds.

FUNDS OF HEDGE (OR LIQUID ALTS) FUNDS

Both hedge funds and liquid alts are able to invest up to 100% of their net assets in other mutual funds (including alternative mutual funds), thus creating a fund-of-funds structure. For the purpose of explanation, we refer below to this structure as a **fund of hedge funds** (FoHF), but it can just as easily be a fund of liquid alt funds.

An FoHF is a portfolio of hedge funds overseen by a manager who determines which hedge funds to invest in and how much to invest in each.

There are two main types of FoHF:

- Single-strategy, multi-manager funds invest in several funds that employ a similar strategy, such as long or short equity funds and convertible arbitrage funds.
- Multi-strategy, multi-manager funds invest in several funds that employ different strategies.

ADVANTAGES OF FUNDS OF HEDGE FUNDS

Funds of hedge funds have the following key advantages:

Due diligence	The task of selecting and monitoring alternative fund managers is time-consuming and requires specialized analytical skills and tools. Most individual and institutional investors do not have the time or expertise to conduct thorough due diligence and ongoing risk monitoring for hedge funds. An FoHF constitutes an effective way to outsource this function.
Reduced volatility	By investing in a number of different hedge funds, an FoHF should provide more consistent returns with lower volatility and risk than that of its underlying funds.

Professional management	An experienced portfolio manager and his or her team evaluates the strategies employed by the various fund managers and establishes the appropriate mix of strategies for the fund. Selecting funds that make up a low- or non-correlated portfolio requires detailed analysis and substantial due diligence. Ongoing monitoring is also required on each underlying fund to ensure that performance objectives continue to be met.
Access to hedge funds	Many hedge funds do not advertise, and many are not sold through traditional distribution channels. Information on some hedge funds is closely held and hard to access. Moreover, many successful hedge funds have reached their capacity limitations and either do not accept new money or accept money only from existing investors. Fund of hedge fund managers provide access to hedge funds for investors who would otherwise be shut out. Using their experience and contacts within the industry, reputable managers know how to reach hedge fund managers or how to obtain information on a particular fund and even reserve capacity with a fund.
Ability to diversify with a smaller investment	Funds of hedge funds increase access by smaller investors to hedge funds. Many Canadian hedge funds accept as little as $25,000 from accredited investors. However, some funds have a minimum investment threshold of US$1 million, with some as high as US$5 million or more. An investor would need to commit significant funds to achieve the equivalent diversification offered by an FoHF.
Manager and business risk control	Hedge funds and, to a lessor extent, liquid alts have fewer regulatory restrictions than more mainstream investments. Many investors therefore believe that some hedge fund management firms may terminate

	their activities for business or other reasons at any time. This risk is based on the fact that hedge fund management firms tend to be relatively small business concerns, the success of which often rests on one or a small number of managers and partners. Also, because some hedge funds pursue riskier investment strategies, they may be more likely to experience problems that could lead them to terminate the fund. This so-called *blowup risk* can be diversified away through an FoHF because any individual fund likely represents a relatively small fraction of the total assets invested. Additionally, the FoHF manager's duty is to continuously monitor and manage underlying funds to mitigate business risk.

DISADVANTAGES OF FUNDS OF HEDGE FUNDS

Funds of hedge funds also have several disadvantages and risks, as follows:

Additional costs	Competent FoHF managers can be expensive to retain. Additional fees cover the management and operating expenses of the FoHF organization, as well as its margins. Most FoHFs charge a base fee and an incentive fee, in addition to the fees (both base and incentive) charged for the underlying hedge funds. A typical FoHF charges a 1% management fee and a 10% incentive fee, plus fund expenses.
No guarantees of positive returns	An FoHF does not constitute a guaranteed investment and cannot be assured of meeting its investment objectives. In fact, during certain periods, FoHF asset values will probably decline. You should make sure that your clients understand that the FoHF is simply the sum of its component hedge fund investments. Despite the claims of some hedge fund marketers,

	investors should not expect positive returns in every reporting period.
Low or no strategy diversification	Some FoHFs are strategy-specific and invest only in one type of hedge fund, such as long/short equity or convertible arbitrage. Such funds fill a specific role in the portfolio and may contribute less diversification than multi-strategy, multi-manager FoHFs.
Insufficient or excessive diversification	The number of hedge funds in an FoHF can vary dramatically, from five to more than 100 hedge funds. Some may not provide adequate diversification, depending on the objectives sought by the investor. Others may dilute returns and provide more diversification than the investor needs.
Additional sources of leverage	Some FoHFs add a second layer of leverage, above that used by the underlying hedge fund managers, to enhance the FoHF's return potential. This strategy adds to the costs and risk of the FoHF. You should make sure that your clients understand this aspect of the strategy and agree to it.

EXCHANGE-TRADED FUNDS (ETFs)

Certain ETFs, like leveraged and inverse products, were regulated under NI 81-104 and as such have been already allowed a certain degree of flexibility with respect to derivatives and leverage (but not short selling of non-derivative securities). These strategies will be discussed in the alternative investment strategies lesson. They, along with all other ETFs that utilize alternative strategies will now be regulated under the modernized NI 81-102.

In the United States, liquid alternative ETFs have grown in number and market share and now comprise slightly less than 10% of all liquid alternative investments.

One of the main advantages of ETFs versus hedge funds or liquid alts is the ability to trade them intra-day on an exchange. It is questionable however whether this is an advantage when it comes to ETFs that utilize certain alternative strategies such as long/short. The value of being able to trade this type of liquid alt ETF may be very small. Nonetheless for other strategies intra-day trading may provide some advantage.

COMPARING ALTERNATIVE MUTUAL FUNDS WITH CONVENTIONAL MUTUAL FUNDS AND HEDGE FUNDS

6 | Describe the similarities and differences between alternative mutual funds, hedge funds, and conventional mutual.

As indicated earlier in the chapter, alternative strategies can be housed in a variety of investment structures, the most prominent of which are hedge funds and alternative mutual funds. Essentially, alternative mutual funds offer certain protections not found in hedge funds to investors who are looking for alternative strategies. For example, investors may have more protection in the areas of transparency, liquidity, and general regulatory oversight.

There is a cost however to those protections. Although liquid alts can use leverage and short selling more liberally than mutual funds can, they do have more restrictions in these areas compared to hedge funds. For example, alternative mutual funds are able to short sell up to a maximum of 50% of the fund's NAV, with no cash cover required. Mutual funds, in comparison, can short sell up to a maximum of only 20% of NAV, and they must have 100% cash cover. Hedge funds are able to short sell to any extent and without cash cover, depending on the details of their offering memorandum.

With respect to the use of derivatives, liquid alternatives have just about as much flexibility as hedge funds. Like hedge funds, they are able to use derivatives in a non-hedging way (i.e., for speculation), without the need for cash cover. However, liquid alts are still subject to an overall leverage limit of 300% of NAV. Hedge funds may have a higher leverage

limit, as long as it is consistent with the details of their offering memorandum. Conventional mutual funds can also use derivatives for speculation, but they require a 100% cash cover, and leverage is generally prohibited.

KEY DIFFERENCES BETWEEN CONVENTIONAL MUTUAL FUNDS AND ALTERNATIVE FUNDS

Table 20.2 provides a complete comparison of the main product features and regulatory restrictions for conventional mutual funds, traditional (exempt market) alternative funds (i.e., hedge funds), and alternative mutual funds respectively. The differences are broken down into the following categories:

- Regulatory disclosures
- Investment objectives
- Strategy allowances and limitations (including use of derivatives, short selling, leverage, physical commodities, and concentration of investments)
- Liquidity
- Fees
- Redemptions
- Permitted investors and size of initial investment
- Regulatory oversight

Because of the differences between the two alternative strategy vehicles, hedge funds tend to demonstrate higher after-fee returns, but they do so by taking on higher risk. In other words, risk-adjusted returns between the two vehicles are similar. Hedge funds present investors with higher returns at higher levels of risk, whereas liquid alts tend to have slightly lower rates of return, but at lower levels of risk. Note, however, that during times of market distress, when there is generally a premium paid for liquidity, the differences in absolute returns narrows.

Table 20.2 | Key Differences Between Conventional Mutual Funds, Hedge Funds and Alternative Mutual Funds

Main Product Features and Regulatory Restrictions	Conventional Mutual Funds	Traditional (Exempt Market) Alternative Funds (Hedge Funds)	Alternative Mutual Funds
Regulatory Disclosures			
Offering documents	• Simplified prospectus • Annual Information Form (AIF) • Fund Facts document	Offering memorandum	• If listed on a stock exchange, then requirements are a long form prospectus and ETF Facts • If not listed on a stock exchange, then requires same disclosure as conventional mutual funds.
Fund NAV calculation frequency	Required to calculate NAV weekly, unless they use specified derivatives or short sell – in which case the NAV must be calculated daily	Frequency set by offering memorandum (usually monthly or quarterly)	Same as conventional mutual fund

Fund holdings disclosure (transparency)	Monthly: Top ten security holdings Quarterly: Complete fund holdings report	Disclosure frequency stipulated in offering memorandum (typically semi-annual or annual)	Same as conventional mutual fund
Continuous disclosure	Mandatory disclosure: • Annual audited and semi-annual unaudited financial statements • Management reports of fund performance • Annual information forms, and • Timely disclosure of material changes	As per offering memorandum	Same mandatory disclosures as conventional mutual fund. Also, leverage disclosure
Investment Objective			
Investment objective	Maximize relative return	Maximize absolute return, while providing downside protection in falling markets	Maximize absolute return, while providing downside protection in falling markets

Strategy Allowances and Limitations			
Permitted borrowing	Maximum 5% of fund NAV at time of borrowing on a temporary basis, for limited purposes	Limit set by offering memorandum	Maximum 50% of fund NAV for investment purposes
Permitted short sale of a single issuer	Maximum of 5% of fund NAV	Permitted as per offering memorandum	Maximum of 10% of fund NAV
Permitted total short sales for fund	Maximum of 20% of fund NAV	Permitted as per offering memorandum	Maximum of 50% of fund NAV
Permitted total fund leverage (combined limit on borrowing and short selling)	Maximum aggregate borrowing and short selling of 25% of fund NAV at any time	Limit set by offering memorandum	Maximum aggregate borrowing and short selling of 50% of fund NAV
Aggregate gross exposure	Maximum aggregate borrowing and short selling of 25% of fund NAV at any time	Limit set by offering memorandum	Maximum aggregate gross exposure through borrowing, short selling, and use of specified derivatives, of 300% of fund NAV
Cash cover for short positions	150% cash cover required	Limit set by offering memorandum	Not required

Diversification - concentration (issuer level)	Maximum of 10% of NAV invested in securities of any one issuer	Limit set by offering memorandum	Maximum of 20% of NAV invested in securities of any one issuer
Control Restriction	Maximum 10% of the (a) votes attaching to the outstanding voting securities of the issuer, or (b) the outstanding equity securities of the issuer, with limited carve-outs.	As per offering memorandum.	Same as conventional mutual funds
Strategy Allowances and Limitations			
Limitation on exposure to alternative mutual funds	• Can invest up to 100% of the fund's net assets in any other mutual fund (other than an alternative mutual fund) • Conventional mutual funds can invest up to 10% of fund's net assets in alternative mutual funds	As per offering memorandum	Can invest up to 100% of net assets in other mutual funds (including alternative mutual funds) thus creating a fund of funds structure.
Investment in physical	Without an exemption,	Limit set by offering	Permitted

commodities	conventional mutual fund can invest up to 10% of the fund's NAV directly in gold, silver, platinum and palladium or indirectly through specified derivatives	memorandum	
Restriction to trade in only 'cleared specified derivatives' (those cleared through a clearing agency regulated under the laws of either Canada, the United States, or Europe)	Yes	Restriction, if any, set by offering memorandum	No restriction
OTC derivative single counterparty exposure	Maximum exposure of 10% of fund NAV to any one OTC derivative counterparty	Limit set by offering memorandum	Maximum exposure of 10% of fund NAV to any one OTC derivative counterparty
Restricted to deal only with OTC derivative counterparties that have an	Required to deal only with counterparties with an 'approved credit rating'	Restriction, if any, set by offering memorandum	Exempt from requirement to deal only with OTC derivative counterparties

‘approved credit rating’			that have an ‘approved credit rating’
Derivatives for non-hedging purposes	Cash cover required	No cash cover requirements	No cash cover requirements
Liquidity			
Investments in illiquid assets	Maximum of 10% of fund NAV at time of purchase. Hard cap of 15% of fund NAV for up to 90 days	Limit set by offering memorandum	Same as conventional mutual funds
Fees			
Charging management fees permitted	Yes	As defined in offering memorandum	Yes
Charging performance fees permitted	Yes, but can only charge performance fees tied to a reference benchmark or index	Yes, but performance fees normally charged based on the total return of the fund itself	Yes, but performance fees normally charged based on the cumulative total return of the fund itself for the period that began immediately after the last period for which the performance fee was paid

Commissions	As permitted as per NI 81-105 (Mutual Fund Sales Practices) In particular, sales commissions cannot be charged to the fund but must be paid by the manager	As per offering memorandum	Same regulation as conventional mutual funds
Redemptions			
Product redemption	Usually daily	Usually monthly, sometimes quarterly	Usually daily
Initial redemption deferral	Normally no redemption deferral time period (however, prospectus normally allows for redemption deferral should manager deem appropriate in period(s) of market turmoil)	As defined in offering memorandum (typically 30 days, but can have provision for longer time periods under certain circumstances)	Redemptions can be deferred for a time period as long as six months after the date on which the receipt is issued for the initial prospectus (provided it is disclosed in the prospectus)
Permitted Investors and Size of Initial Investment			
Permitted investors	General public	Exempt, accredited, institutional, or minimum initial	General public

		$150,000 investment	
Minimum initial investment size	Typically $100 – $1,000	Typically $100,000 – $150,000	Typically $100 – $1,000
Minimum fund seed capital requirement for new funds	$150,000 provided by manager. Manager is able to redeem this seed capital once the fund has raised at least $500,000	No minimum	Same as conventional mutual funds
Regulatory Oversight			
Investor rights of withdrawal	Right to cancel investment within 48 hours of receipt of confirmation purchase	No right of withdrawal except for as might be detailed in offering memorandum and associated purchase agreements	Same regulation as conventional mutual fund
Investor rights of rescission	Depending on the province, investors maintain their right of damages or to rescind the purchase if the Fund Facts	No right of rescission unless otherwise stated in the offering memorandum and	Same regulation as conventional mutual fund

	document, simplified prospectus, AIF, or financial statements contain a misrepresentation.	associated purchase agreements	
Custodian	Custodian must meet requirements as defined in regulations (NI 81-102)	As per offering memorandum	Same regulation as conventional mutual fund
Ability for fund manager to receive reimbursement of organizational costs from the fund	Prohibited	As per offering memorandum	Prohibited
Regulatory Oversight			
Security holder and regulatory approval of fundamental changes	All fundamental changes require security holder approval. The primary ones are: • Management and/or performance fee increases • Changes in the methodology	As per offering memorandum	Same regulations as conventional mutual funds

	of fee calculations • Changes in the fund's fundamental investment objective • Change of manager and/or any reorganization		
Proficiency Requirement for MFDA Dealing Representatives	Investment Funds in Canada course, or Canadian Funds Course or Canadian Securities Course	Canadian Securities Course, Derivatives Fundamentals Course, or Chartered Financial Analyst. These requirements are under review by the MFDA and CSA and are likely to change.	Canadian Securities Course, Derivatives Fundamentals Course, or Chartered Financial Analyst. These requirements are under review by the MFDA and CSA and are likely to change.
Proficiency Requirement for IIROC Registered Representatives	Canadian Securities Course + Conduct and Practices Handbook + 90 Day Training + Wealth Management	Basic licensing and a requirement to Know Your Product (KYP) before selling to clients	Basic licensing and a requirement to Know Your Product (KYP) before selling to clients

Essentials (within 30 months of licensing)

HEDGE FUND ATTRIBUTES

Which attributes of hedge funds contribute to decreasing and increasing portfolio risk? *Complete the online learning activity to assess your knowledge.*

LIQUID ALTS COMPARED TO MUTUAL FUNDS

Can you recall which conventional mutual fund and liquid alt features are different or the same? *Complete the online learning activity to assess your knowledge.*

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, you learned about the following key features of alternative investments:

- Alternative investments are asset classes that are different from the traditional three broad asset classes of equities, bonds, and cash. They are generally categorized into three groups: alternative strategy funds, alternative assets, and private equity. Alternative strategy funds fall into any of three general groups: relative value, event-driven, and directional. Alternative assets include commodities, real estate, collectibles, infrastructure investment, and natural resources.

- Three reasons to invest in alternative investments are to diversify, to add alpha, and to seek absolute returns.
- The efficient frontier represents the most efficient set of portfolios for all levels of risk. All points below the efficient frontier are inefficient because either risk can be reduced for a similar return or return potential can be increased for a similar level of risk.
- First-order risks relate to exposure to changes in the general direction of equity, fixed-income, currency, and commodity markets. Second-order risks include liquidity, leverage, deal break, default, counterparty, trading, concentration, pricing model, and trading model risks. Operational risk relates to the alternative strategy fund as a business entity, and stems from potential system failures, as well as faulty settlement, reporting, and accounting procedures.
- Hedge funds are lightly regulated pools of capital whose managers are not constrained by the rules that apply to mutual funds. For example, they can take short positions, use derivatives for leverage, and perform arbitrage transactions. Investors in the retail market have access to hedge-fund like products, such as alternative mutual funds and closed-end funds, that have fewer regulatory restrictions than mutual funds.
- Typically, hedge fund investors who are individuals must qualify under the accredited investor exemption.
- Hege fund incentive fees can be subject to a high-water mark or a hurdle rate, or both.
- Alternative mutual funds, also referred to as liquid alternatives or liquid alts, have greater usage of derivatives, leverage, and short selling than conventional mutual funds, but face more restrictions than hedge funds.
- Advantages of funds of hedge funds include due diligence, reduced volatility, professional management, access to hedge funds, greater diversification with a smaller investment, and risk control. Disadvantages include additional costs, no guarantee of positive returns, low strategy diversification, insufficient or excessive diversification, and additional sources of leverage.

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 20 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 20 FAQs.

Alternative Investments: Strategies and Performance 21

CHAPTER OVERVIEW

In this chapter you will learn about a variety of alternative investment strategies and performance measurement tools. You will also learn about a comprehensive due diligence process and finish with a brief discussion about the suitability of alternative strategies.

LEARNING OBJECTIVES	CONTENT AREAS
1 | Explain how the various types of alternative strategies work, including those in the relative value, event-driven, and directional strategy classifications.	**Alternative Investment Strategies**
2 | Identify the strategies that are most likely to be used in alternative mutual funds.	
3 | Discuss risk measures and risk-adjusted return measures to alternative strategy fund investments.	**Alternative Strategy Fund Performance Measurement**
4 | Discuss benchmarking of alternative investment performance.	
5 | Describe the due diligence process that should be conducted when contemplating	**Due Diligence**

	investment in an alternative strategy fund.	**and Suitability of Alternative Strategies**
6 |	Identify the investor groups for whom liquid alts might be most suitable.	

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

absolute risk

convertible arbitrage strategy

directional strategies

distressed security strategy

emerging markets alternative funds

equity market-neutral strategy

event-driven strategies

fixed-income arbitrage strategy

global macro strategy

high-yield bond strategy

kurtosis

maximum drawdown

merger strategy

relative value strategies

risk arbitrage strategy

short bias strategy

long/short equity strategy

skew

time to recovery

INTRODUCTION

In the previous chapter, we learned what the risks and benefits of alternative investments are. We also learned about their structure and how liquid alts and hedge funds compare with each other and with conventional mutual funds. The previous chapter also briefly highlighted that alternative strategies can be categorized as relative value, event-driven, and directional strategies.

In this chapter, we discuss at length a variety of investment strategies that alternative strategy managers employ in each of the categories mentioned above. We will also discuss performance measures and examine the many questions that one can ask as part of a comprehensive due diligence process.

ALTERNATIVE INVESTMENT STRATEGIES

1 | Explain how the various types of alternative strategies work, including those in the relative value, event-driven, and directional strategy classifications.

2 | Identify the strategies that are most likely to be used in alternative mutual funds.

Alternative investment strategies can be broken down into three general categories listed in order of increasing expected return and risk:

- **Relative value strategies** attempt to profit by exploiting inefficiencies or differences in the pricing of related stocks, bonds, or derivatives. Alternative strategy funds using these strategies generally have low or no exposure to the underlying market direction.
- **Event-driven strategies** seek to profit from unique corporate structure events such as mergers, acquisitions, stock splits, and stock buybacks. Alternative strategy funds using event-driven strategies have medium exposure to the underlying market direction.
- **Directional strategies** bet on anticipated movements in the market prices of equity securities, debt securities, foreign currencies, and commodities. Alternative strategy funds using these strategies have high exposure to trends in the underlying market.

Table 21.1 shows the three major categories of alternative strategy fund strategies and the specific strategies that fall within each category.

Table 21.1 | Major Alternative Strategy Fund Categories

Relative Value Strategies (Low Exposure to Market Direction)	**Event-Driven Strategies** (Medium Exposure to Market Direction)	**Directional Strategies** (High Exposure to Market Direction)
Equity market-neutral	Merger or risk arbitrage	Long/short equity
Convertible arbitrage	Distressed securities	Global macro
Fixed-income arbitrage	High-yield bonds	Emerging markets
		Dedicated short bias
		Managed futures

RELATIVE VALUE STRATEGIES

As mentioned, relative value strategies attempt to profit by exploiting inefficiencies or differences in the pricing of related securities. Relative value strategies include equity market-neutral strategies (also called pairs trading), convertible arbitrage, and fixed-income arbitrage.

EQUITY MARKET-NEUTRAL STRATEGIES

An **equity market-neutral strategy** is designed to exploit inefficiencies and opportunities in the equity market by creating simultaneously long and short matched equity portfolios of approximately the same size. The goal is to generate returns that do not depend on the direction of the stock market. The expected performance of the strategy relies on the ability of the manager to analyze individual stocks or other exposures, such as industries, valuations, or countries, and select appropriate pairs (hence the term pairs trading). The goal is to have zero, or very low, beta (i.e., low directional exposure). As such, the expected return above the risk-free rate is entirely or mostly the alpha created from the manager's performance.

Well-designed equity market-neutral portfolios hedge out risks related to industry, sector, market capitalization, currency, and other exposures. Moderate leverage (generally less than two times capital) is typically used to enhance returns.

EQUITY MARKET-NEUTRAL STRATEGY BREAKDOWN

The following steps illustrate the typical process undertaken by an equity market-neutral investment manager in executing a pairs trade:

1. Review the proprietary fundamental valuation models of two companies to determine relative value opportunities (i.e., mispricings) between related equities.
2. Compile a list of potential trading pairs.
3. Examine the pairs in the context of the current and historical price spread relationship between the two securities.
4. Choose the pairs the investment manager would like to initiate as trading pairs.
5. Execute the pairs trade.

6. Enter the initiated trade into a real-time portfolio management system, along with the target price spread at which the trade will be reversed to realize the target return.

The decision as to which two securities will make up the pair is based on the degree of similarity between the business activities of the two companies. Typically, the companies would be head-to-head competitors with very similar business strategies.

EXAMPLE

Equity Market-Neutral Strategy

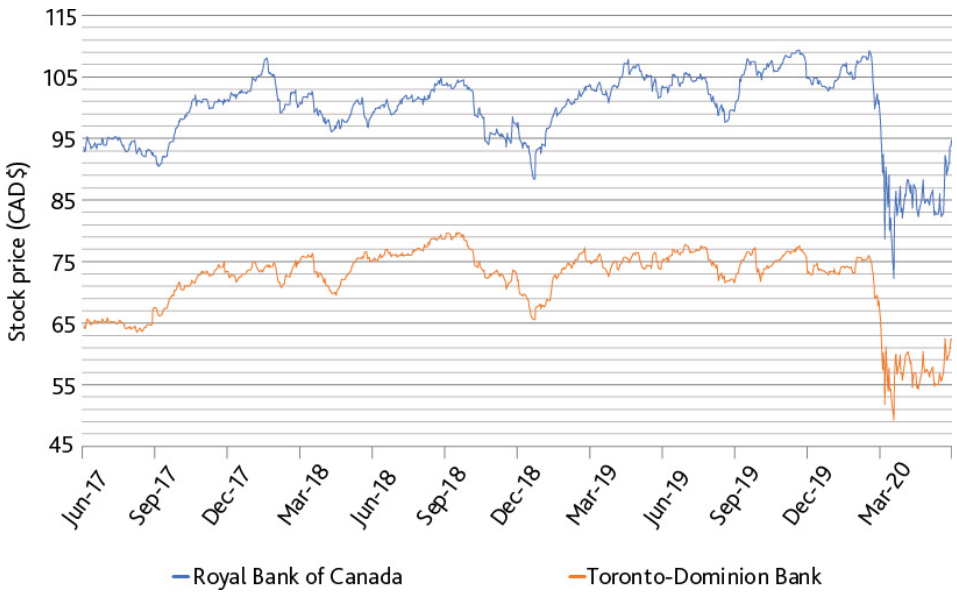
Raj, an investment manager, wishes to establish a pairs trade between the stocks of Royal Bank of Canada (RY) and Toronto Dominion Bank (TD), two Canadian companies with very similar business activities.

Raj has determined through relative market valuation that the current market price spread between the two securities is incorrect and therefore offers a trading opportunity. Using fundamental valuation techniques, he concludes that a market price-spread of less than $22.00 is attractive enough to initiate the trade.

However, before initiating the trade, he must also determine the appropriate price spread at which to reverse the trade and potentially earn a profit. Based on his analysis, Raj believes that the maximum appropriate price spread between the two stocks is $28.00.

Figure 21.1 provides the share price history for the two banks over the past three years.

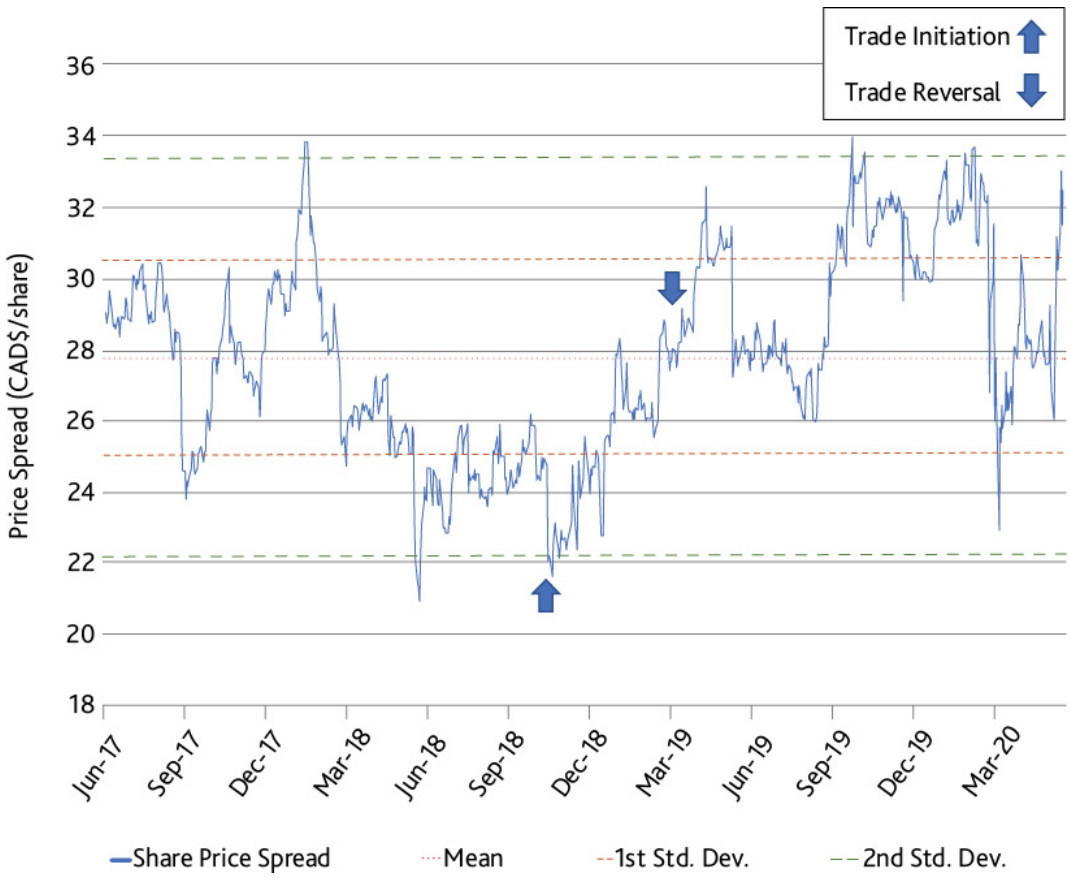
Figure 21.1 | Stock Price Comparison



Source: adapted from Bloomberg

Figure 21.2 shows the market price-spread between the two stocks and provides the key data required to initiate the pairs trade. The target price-spread was attained on November 1, 2018, and Raj initiated the trade by shorting TD and going long RY simultaneously.

Figure 21.2 | Share Price-Spread History and Statistics



Source: adapted from Bloomberg

Based on fundamental analysis, Raj decides to initiate a pairs trade between RY and TD at a price spread of $22.00 or less, and to reverse the trade when the price spread is at least $28.00. He executes the trade with an investor's capital amount of $740,000.

The steps involved in the trade's initiation and eventual reversal are as follows:

1. On November 1, 2018, the price spread between RY and TD was at or below the target price-spread of $22.00. Accordingly, the trade is initiated at a price spread of $21.86 (shown in Table 21.2, Initiation section).

   Specifically, the trade initiation involves two simultaneous actions:

   a. Shorting $740,000 worth of TD stock (10,000 shares)

   b. Purchasing an equivalent dollar amount of RY stock (7,720 shares) with the proceeds

2. Raj reverses this trade when the target reversal price-spread of $28.30 is reached on March 1, 2019 (shown in Table 21.2, Reversal section).

   Specifically, the trade reversal involves two simultaneous actions:

   a. Selling the RY position for proceeds of $798,668 (7,720 shares)

   b. Buying back 10,000 shares of TD for $751,600 with a portion of the proceeds

3. The net result of this initiation and reversal "round-trip trade" was a profit of $47,068. This equates to a 6.36% rate of return (RoR) and an annualized RoR of 19.08%.

Table 21.2 | Equity Market-Neutral Trade

		Initiation (November 1, 2018)			Reversal (March 1, 2019)			Profit / (Loss)			
Security	Position	Market Value ($/sh)	# of Shares	Total Market Value (C$)	Market Value ($/sh)	# of Shares	Total Market Value (C$)	Profit/(Loss) per Share	Profit/ (Loss) (C$)	Rate of Return (%)	Annualized Rate of Return (%/Yr)
Royal Bank of Canada	Long	96	7,720	740,000	103	7,720	798,669	7.60	58,669	–	–
Toronto Dominion Bank	Short	74	10,000	740,000	75	10,000	751,600	–1.16	– 11,600	–	–
Spread		22	–	–	28	–	47,069	6.44	47,069	6.36%	19.08%

CONVERTIBLE ARBITRAGE

A **convertible arbitrage strategy** is designed to identify and exploit mispricing between convertible securities (i.e., convertible bonds or preferred shares) and the underlying stock. Convertible securities have a theoretical value that is based on a number of factors, including the value of the underlying stock. When the trading price of a convertible bond moves away from its theoretical value, an arbitrage opportunity exists.

This strategy typically involves buying undervalued convertible securities and hedging some or all of the underlying equity risk by selling short an appropriate amount of the issuer's common shares. Properly executed, this strategy creates a net position with an attractive yield that can be almost completely unaffected by broader equity market movements. Interest income on the convertible bond, added to the interest on the short sale proceeds, contributes a relatively steady return.

With convertible bonds, there are further opportunities for gains, independent of market conditions, as the relative value relationship

between the long bond and short stock changes. Convertible bond prices typically behave like equities when the issuer's common shares rise well above the conversion price, the stock price at which the bond's value can be converted into an equivalent number of common shares. Likewise, a convertible bond behaves more like a regular bond when the issuer's common shares decline well below the conversion price. When the shares fall below the threshold, the bond trades on its investment value, that is, its value as a bond without a conversion feature. This value is based on the general level of interest rates and perceived creditworthiness of the issuer.

In a declining stock market with rising interest rates, a fund that is long the convertible bond and short the common stock could realize a gain on the short stock position that exceeds the loss on the bond (which, although its value may change, cannot fall below its investment value). In a rising stock market with falling interest rates, the gain from the bond should be greater than the loss on the stock, because the amount of stock that is sold short is nearly always less than the conversion amount.

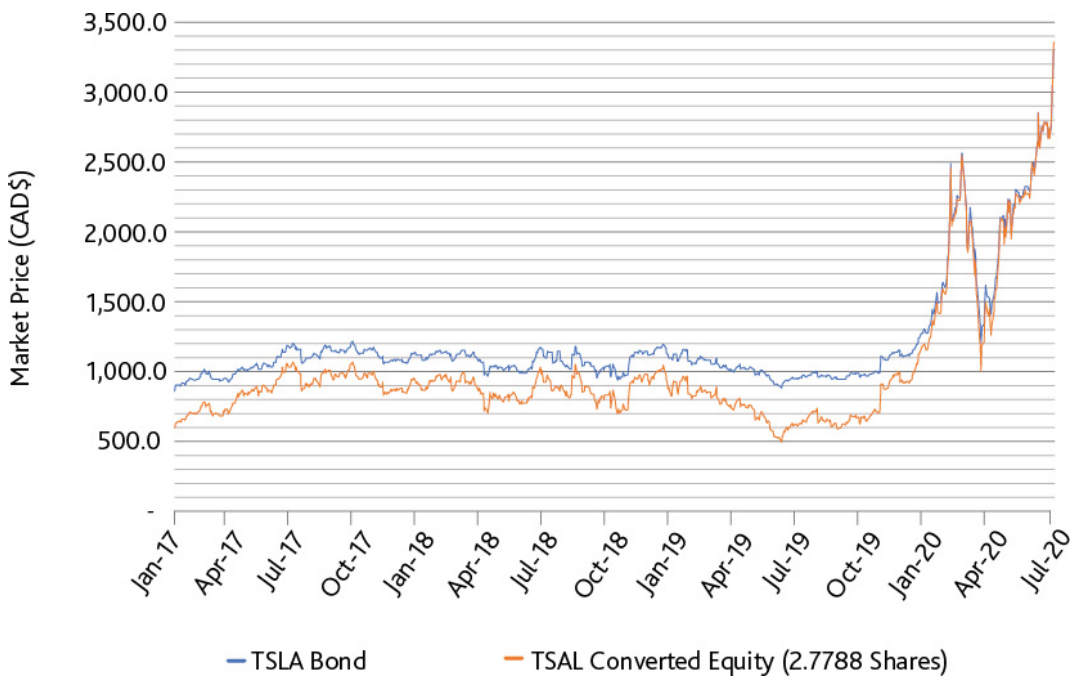
EXAMPLE

Convertible Arbitrage

Clara, an investment manager, decides to establish a trade on Tesla stock (TSLA) and a TSLA convertible bond. She believes the relative market valuation between these two securities is incorrect and that the bond is relatively cheap compared to the underlying stock.

Figure 21.3 provides the share price history for the two securities over the past three years.

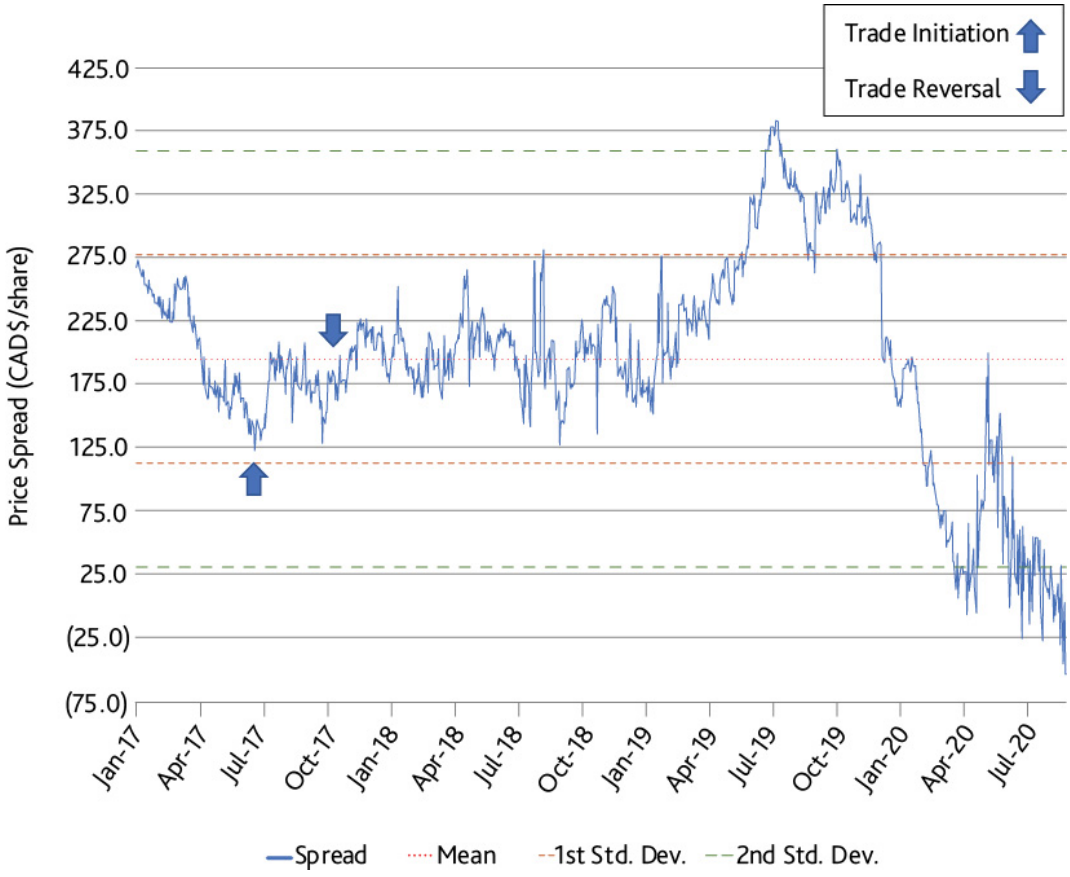
Figure 21.3 | TSLA Market Price Comparison (Bond and Converted Bond)



Source: adapted from Bloomberg

The target price-spread was attained on December 25, 2018, and Clara initiated the trade by simultaneously shorting TSLA stock and going long the convertible TSLA bond. Figure 21.4 shows the market price-spread between the bond and the equivalent amount of stock.

Figure 21.4 | Price-Spread History and Statistics



Source: adapted from Bloomberg

For the sake of simplicity in this example, Clara will trade only one bond and the equivalent amount of stock that is convertible under the terms of the bond offering. This value (2.7788 shares) is determined by dividing the bond price by the conversion price, which is also set in the bond offering at $359.00; thus: ($1,000.00/C$359.87 = 2.7788 shares).

The steps in the trade between the convertible TSLA bond and the underlying TSLA stock are as follows:

1. Based on her fundamental analysis, Clara decides to short the TSLA common stock and long the TSLA bonds. This trade was initiated on July 7, 2017 (shown in Table 21.3, Initiation section).

   Specifically, the trade initiation involved two simultaneous actions:

   a. Shorting 2.7788 shares of TSLA stock ($870.38, or $313.22/share equivalent)

b. Purchasing a convertible TSLA bond ($1,061.10) with the proceeds

2. After monitoring the trade for several months, Clara believes that the convertible TSLA bond has realized value, so she reverses the trade by selling the bond and buying back the stock. This price spread occurred on October 30, 2017 (shown in Table 21.3, Reversal section).

   Specifically, the trade reversal involved two simultaneous actions:

   a. Selling the convertible TSLA bond for proceeds of $1,094.81

   b. Purchasing 2.7788 shares of TSLA stock with a portion of the proceeds ($889.44)

3. The net financial result is a profit of $14.65, which equates to a 0.99% RoR and an annualized RoR of 3.13%.

Table 21.3 | Convertible Arbitrage

		Initiation (July 7, 2017)			Reversal (October 30, 2017)			Profit/(Loss)			
Security	Position	Market Value ($/sh)	# of Shares	Total Market Value (C$)	Market Value ($/sh)	#r of Shares	Total Market Value (C$)	Profit/(Loss) per Share	Profit/(Loss) (C$)	Rate of Return (%)	Annualized Rate of Return (%/Yr)
Convertible Bond	Long	1,061	1.00	1,061	1,095	1.00	1,095	33.71	33.71	–	–
Convertible Bond (2.77 Equivalent Shares)	Short	313	2.78	870	320	2.78	889	–6.86	–19.06	–	–
Spread		–	–	191	–	–	205	–	14.65	0.99%	3.13%

FIXED-INCOME ARBITRAGE

A **fixed-income arbitrage strategy** attempts to profit from price anomalies between related interest rate securities and their derivatives, including government and non-government bonds, mortgage-backed securities, options, swaps, and forward rate agreements.

Because the price anomalies are very tiny in value, high leverage is normally used to help generate returns well beyond transaction costs. Leverage for this type of fund can range from 10-to-30 times the capital employed.

The two most popular fixed-income arbitrage hedge fund strategies are credit spread arbitrage and yield spread arbitrage, each of which are

described below.

CREDIT SPREAD ARBITRAGE

Bond portfolio managers rely primarily on two skills:

- The ability to anticipate the future direction of interest rates (given that all bond prices are a function of interest rates)
- The ability to price the credit risk of the bond under consideration correctly

Credit risk manifests as yield spread for the bond, which is the difference between the market yield to maturity (YTM) of the risky bond and that of a sovereign government bond with a similar term to maturity.

Generally, bond portfolio managers initiate bond credit spread trades in such a manner that the term to maturity of the risky bond and the sovereign bond are equal. Therefore, changes in overall market interest rates will have a negligible impact on the ultimate profitability of the credit spread trade. Accordingly, the managers attempt to add value by demonstrating their skill at determining the “proper” yield spread for the credit bond under examination.

In this hedge fund strategy, the fixed-income bond manager will want to short the sovereign government bond and purchase the “cheap” credit bond when the yield spread between the two is “wide” (i.e., larger than they think it should be). If the yield spread subsequently narrows, and the manager reverses the trade, a capital gain will result. Conversely, if the yield spread widens, the trade will result in an unrealized capital loss (known as being “underwater”).

EXAMPLE

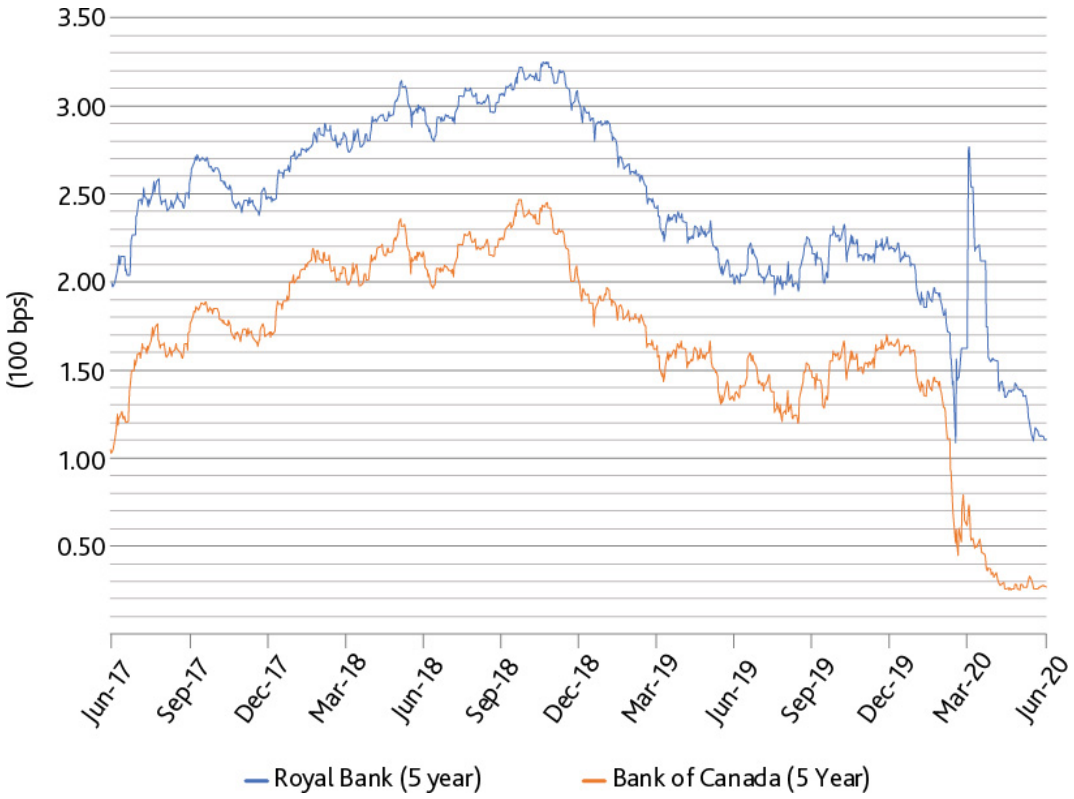
Credit Spread Arbitrage

James, an investment manager, has decided to establish a credit spread trade on a Royal Bank of Canada (RY) 5-year bond and a Bank of Canada (BoC) 5-year bond.

Through fundamental and historical analysis of RY and its peers, James has determined that the RY’s 5-year bond is relatively cheap, and that its spread relative to the Canadian government bond is wide, given its valuation.

Figure 21.5 provides the yield history for these two bonds over the past three years.

Figure 21.5 | Yield to Maturity Comparison



Source: adapted from Bloomberg

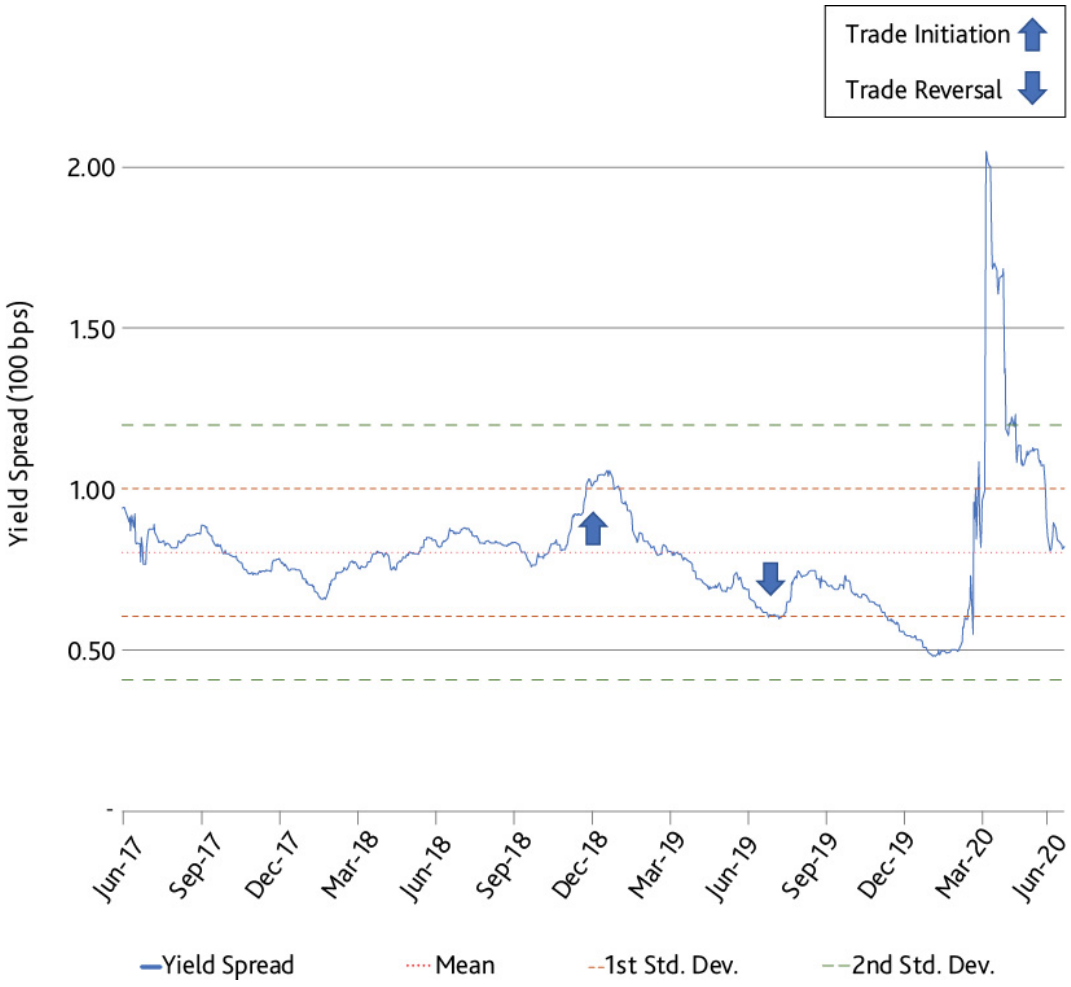
James begins to monitor the RY bond and will initiate a trade when the credit spread widens to above 100 basis points (bps). He has determined that 100 bps is outside the bond's relative market valuation and therefore provides an opportunity for a spread-trade. James has also determined that the yield spread should tighten to, at most, 70 bps. Once the trade is initiated, James will monitor the trade and then reverse it when the bond yield has tightened to this level.

The target yield spread was attained on December 7, 2018, at which point James shorted the BoC bond and used the proceeds to purchase the RY bond (for a spread of 102 bps).

Six months later, on June 10, 2019, the spread fell to 70 bps. He reversed the trade by selling the RY bond and using the proceeds to purchase a BoC bond and cover the short.

Figure 21.6 shows the yield spread on the two bonds, as well as the trade timeline. It is important to note that the trade initiation provides the yield history for these two bonds over the past three years.

Figure 21.6 | Yield Spread History and Statistics



Source: adapted from Bloomberg

The bonds are priced at $1,000 at par, and James will use $1,000,000 of investor's capital to initiate the trade.

The steps in the credit spread trade between RY and BoC are as follows:

1. Based on his fundamental analysis, James decides to initiate the trade at a yield spread of 100bps or more, and to reverse it when the yield spread tightens to 70bps or less.

2. December 7, 2018, the yield spread between RY and BoC widens above 100bps, and the trade is initiated at a spread of 102bps (shown in Table 21.4, Initiation section).

   Specifically, the trade initiation involved two simultaneous actions:

   a. Shorting $1,000,000 worth of BoC bonds (1,022 bonds)

   b. Purchasing an equivalent dollar amount of RY bonds (1,033 bonds) with the proceeds

3. James reverses this trade as soon as the target reversal price-spread of at least 70bps is reached. This yield spread occurs on June 10, 2019 (shown in Table 21.4, Reversal section).

   Specifically, the trade reversal involved two simultaneous actions:

   a. Selling the RY position for proceeds of $1,042,297 (1,033 bonds)

   b. Purchasing 1,022 bonds of BoC with a portion of the proceeds ($1,025,066)

4. The net result of this round-trip trade is a profit of $17,231. This equates to a 1.72% RoR on the initial $1,000,000 investment, which corresponds to an annualized RoR of 3.45%.

Table 21.4 | Credit Arbitrage

		Initiation (December 7, 2018)				Reversal (June 10, 2019)				Profit/(Loss)			
Security	Position	YTM (%/Yr)	Market Value of Bond (C$ 000's)	# of Bonds	Total Market Value (C$)	YTM (%/Yr)	Market Value of Bond (C$ 000's)	# of Bonds	Total Market Value (C$)	Profit/(Loss) per Bond $	Profit/(Loss) (C$ 000's)	Rate of Return (%)	Annualized Rate of Return (%/Yr)
Royal Bank of Canada – 5 Year	Long	3.02	968	1,033	1,000,000	2.12	1,009	1,033	1,042,297	41	42,297	–	–
Government of Canada – 5 Year	Short	2.00	979	1,022	1,000,000	1.42	1,003	1,022	1,025,066	–24	–25,066	–	–
Spread		1.02	–10	–	–	0.70	6	–	17,231	16	17,231	1.72%	3.45%

YIELD SPREAD ARBITRAGE

In a yield spread arbitrage strategy, the manager is only concerned with the yield curve of a single issuer. Due to the liquidity and vast choice of bonds, the yield spread arbitrage strategy is normally only implemented with a sovereign yield curve (BoC or the U.S. treasury).

Managers of yield spread strategies attempt to add value by demonstrating their skill at forecasting the shape of the yield curve at a future moment.

The manager implements the strategy to realize a targeted rate of return based on the expected yield curve.

For example, if the manager believes that the yield curve will flatten (when the difference between the yield on the longer-dated security and the shorter-dated security becomes smaller), they will sell the shorter-dated security and purchase the longer-dated security. It is important to note that managers of this strategy can and do use any combination of terms found on the yield curve.

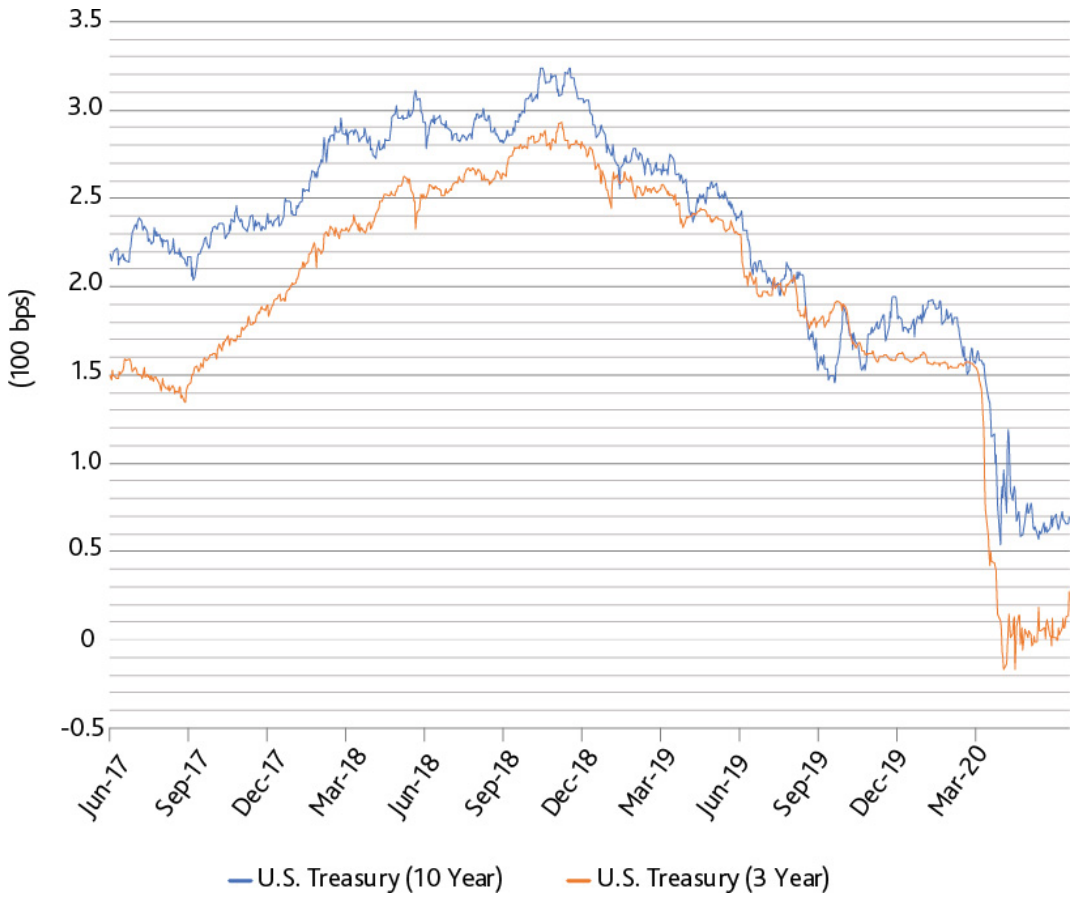
EXAMPLE

Yield Spread Arbitrage

Lydia has been monitoring the U.S. treasury bond market and believes that the U.S. treasury yield curve is going to flatten. She believes that the difference between the yield on the longer-dated security and the shorter-dated security will grow smaller as a result. She decides to establish a yield spread trade between the U.S. Treasury 3-year and 10-year bonds.

Figure 21.7 provides the yield history for the two bonds over the past three years.

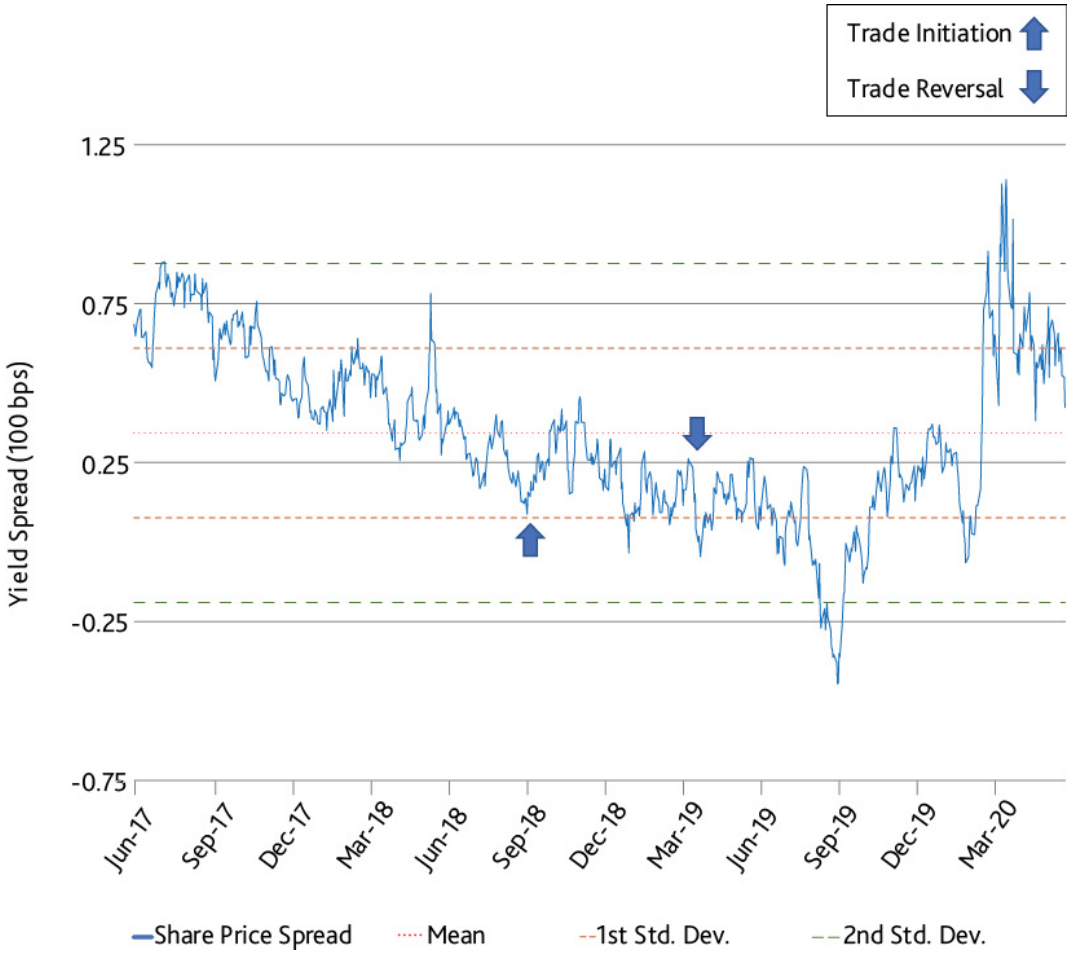
Figure 21.7 | Yield Comparison



Source: adapted from Bloomberg

Figure 21.8 shows the yield spread on the two bonds, as well as the trade timeline. It is important to note that the trade initiation provides the yield spread history for these two bonds over the past three years.

Figure 21.8 | Yield Spread History and Statistics



Source: adapted from Bloomberg

The bonds are US$1,000 at par each, and Lydia uses US$1,000,000 of investor's capital to initiate the trade. After analyzing the U.S. treasury yield curve, Lydia is confident that the yield curve will flatten sometime over the next year.

The steps in the trade are as follows:

1. Lydia initiates the trade on September 18, 2018 at a spread of 27 bps between the two U.S. treasury bonds (shown in Table 21.5, Initiation section)

   Specifically, the trade initiation involved two simultaneous actions:

   a. Shorting US$1,000,000 worth of U.S. Treasury 3-year bonds (1,022 bonds)

b. Purchasing an equivalent dollar amount of U.S. Treasury 10-year bonds (1,053 bonds) with the proceeds of the short sale

2. Over the next two quarters, Lydia continuously monitors the yield curve and decides to reverse the trade when the spread between the two bonds falls to 5 bps on March 22, 2019 (shown in Table 21.5, Reversal section).

   Table 21.5 provides the price calculations and dollar amounts associated with the initiation at 27 bps and the trade reversal at 5 bps.

   Specifically, the trade reversal involves two simultaneous actions:

   a. Selling the U.S. treasury 10-year bond position for proceeds of US$1,051,947 (1,053 bonds)

   b. Purchasing 1,022 U.S. Treasury bonds (US$1,010,984) with a portion of the proceeds to cover the short position

3. The net financial result of this round-trip trade is a profit of US$40,963, which equates to a 4.10% RoR on the initial US$1,000,000 investment and corresponds to an annualized RoR of 8.08%.

Table 21.5 | Yield Arbitrage

		Initiation (September 18, 2018)				Reversal (March 22, 2019)				Profit/(Loss)			
Security	Position	YTM (%/Yr)	Market Value of Bond (C$ 000's)	# of Bonds	Total Market Value (C$)	YTM (%/Yr)	Market Value of Bond (C$ 000's)	# of Bonds	Total Market Value (C$)	Profit/(Loss) per Bond ($)	Profit/(Loss) (C$ 000's)	Rate of Return (%)	Annualized Rate of Return (%/Yr)
U.S. Treasury – 10 Year	Long	3.06	950	1,053	1,000,000	2.44	999	1,053	1,051,947	49	51,947	–	–
U.S. Treasury – 3 Year	Short	2.79	979	1,022	1,000,000	2.39	989	1,022	1,010,984	–11	–10,984	–	–
Spread		0.27	–29	–	–	0.05	10	–	40,963	39	40,963	4.10%	8.08%

EVENT-DRIVEN STRATEGIES

As mentioned, event-driven strategies seek to profit from unique corporate structure events. They include merger strategies (also called risk arbitrage strategies), high-yield bond strategies, and distressed securities strategies.

MERGER (RISK ARBITRAGE) STRATEGY

A **merger strategy** (or **risk arbitrage strategy**) invests simultaneously in long and short positions in the common stock of companies involved in a proposed merger or acquisition. The strategy usually involves taking a long position in the company being acquired and a short position in the acquiring company. The alternative strategy fund manager attempts to take advantage of the differential between the target company's share price and the offering price. Typically, the share price of the target company rises after a takeover or merger announcement but does not rise to the full offering price because of the risk that the deal may not close.

The returns on merger arbitrage are largely uncorrelated to the overall stock market. In general, equity risk is managed (controlled) because the alternative strategy fund manager deals with the probable outcomes of specific transactions rather than with predicting the overall market.

EXAMPLE

ABC makes an offer to acquire XYZ for $50 per share, a 25% premium to its current price, payable in stock. ABC's stock fell a couple percent on the news, to $10 per share, because the acquisition would be slightly dilutive to its earnings per share this year and only modestly accretive to next year's earnings. Risk arbitrageurs shorted 5 shares of ABC for each 1 share they acquired of XYZ (Hedge ratio = XYZ $50 share price / ABC $10 share price = 5). Because the deal is subject to regulatory review and shareholder approval, XYZ is trading at only $48 per share which is a 4% discount to the hedged $50 transaction value. Assuming six months to completion, this represents an annualized return of over 8% that a risk arbitrage fund would typically seek to improve by using leverage.

DID YOU KNOW?

If the acquiring firm's earnings per share decreases post-merger due to a lower earnings contribution from the targeted firm, the deal is considered to be dilutive. If the acquiring firm's earnings per share increases post-merger due to the strong earnings contribution of the targeted firm, the deal is considered to be

accretive. Mergers are often dilutive for the acquiring firm until positive synergies that result from the merger take effect.

HIGH-YIELD BONDS

A **high-yield bond strategy** is a type of credit strategy that invests in below-investment-grade debt securities, otherwise known junk bonds. These bonds are typically rated BB or lower by Standard & Poor's and Ba or lower by Moody's. Managers of this strategy look to earn returns through interest income and capital appreciation (by way of credit upgrade or takeover).

High-yield credit securities can offer higher long-term returns than that of traditional investment grade credit securities through both the generation of interest income and potential capital appreciation. However, they have a greater risk profile. Compared to investment grade credit securities, high-yield securities have historically higher levels of default, which managers must consider when analyzing potential investments and through continual monitoring once held in the portfolio.

DISTRESSED SECURITIES

A **distressed securities strategy** invests in the equity or debt securities of companies that are in financial difficulty and facing bankruptcy or reorganization. Distressed securities generally sell at deep discounts, reflecting their issuers' weak credit quality.

Managers of this strategy analyze companies on the verge of insolvency and then take a position in one company's bonds in hope that the restructuring or liquidation of the company will lead to a return greater than the cost of the bonds.

Restructuring can happen in either of two ways:

- Voluntary restructuring, where bondholders and management come to new terms that allow the company to continue operating
- Involuntary restructuring, where the bond issuer enters bankruptcy, and the restructuring or payout of company assets is decided by the court system

This strategy is commonly considered a subset of a high-yield bond strategy; however, the bonds held in a high-yield portfolio tend to be in relatively good standing, whereas the bonds held in a distressed debt portfolio are currently in or near bankruptcy (and may have already suspended coupon payments).

Many institutional investors are not permitted to own securities that are rated less than investment grade. Therefore, downgrading the credit rating of an issuer or security to below the permissible minimum can precipitate a wave of forced selling that depresses the security's value below fair market value.

Alternative strategy fund managers attempt to profit from the market's lack of understanding of the true value of deeply discounted securities or the inability of institutional and other investors to hold these securities.

DIRECTIONAL STRATEGIES

As mentioned, directional strategies involve high exposure to market direction. They include long/short equity strategies, global macro strategies, emerging market strategies, dedicated short bias strategies, and managed futures strategies.

LONG/SHORT EQUITY

The **long/short equity strategy** is a popular type of alternative fund strategy in Canada. These funds are classified as directional funds because the manager has either a net long or net short exposure to the stock market. The manager is not trying to eliminate market effects or market trends completely, as would be the case with an equity market-neutral strategy; rather, he or she takes both long and short positions simultaneously, depending on the outlook of specific securities.

With a long/short equity strategy, managers try to buy stocks they feel will rise more in a bull market than the overall market and sell short stocks that will rise less. In a down market, good short selections are expected to decline more than the market and good long selections will fall less.

In a long/short equity strategy, the fund is exposed to market risk based on the extent of the net exposure - either long or short. Compared to a long-only fund, this type of fund is often better able to profit in a declining

market, as it can short stocks and manage the fund's net exposure to the market. The amount of leverage used is usually modest and rarely more than three or four times the capital employed. Most of these types of funds use smaller amounts.

A long/short equity fund's net exposure is calculated as follows:

$$\text{Net exposure (in percentage terms)} = \frac{\text{Long Exposure} - \text{Short Exposure}}{\text{Capital}}$$

It is probably most appropriate to explain the equity long/short investment strategy in relation to the equity market-neutral strategy.

First, the equity market-neutral strategy consists of a portfolio of pairs, where the individual stocks have identical market values. This results in a portfolio having theoretically zero beta, with no exposure to overall market movements.

Secondly, the primary difference is that the equity long/short strategy has, by definition, net exposure to the overall market, meaning that portfolio beta is not equal to zero.

In terms of implementation, an equity long/short manager will adopt one of two investment strategies, as follows:

1. The first strategy combines an equity market-neutral portfolio (similar to the one discussed earlier) with a long or short position in suitable equity index futures. (Note that the equity market-neutral component is referred to as "in-the-trade", and the futures position is "out-of-the-trade".)
2. With the second strategy, the portfolio manager creates a portfolio of pair trades, wherein the long position does not equal the market value of the short position. In this way, the manager has added net market exposure to the portfolio without using derivatives.

In the example below, the long/short equity strategy is of the first type, having a balanced long and short trade coupled with the exposure of a long position in a S&P/TSX 60 futures contract.

DID YOU KNOW?

The S&P/TSX 60 futures contract can be used by investors to trade and hedge exposure (long or short) on the Canadian equity market.

The market value of a S&P/TSX 60 futures contract is calculated by taking the current value of the S&P/TSX 60 Index and multiplying it by $200.

Index Value x $200 = Market Value of Futures Contract (C$)

For example, if the index had a value of 850.00 on a given day, then the market value would equal $170,000.

EXAMPLE

Long/Short Equity Strategy

In this example, the underlying equal-dollar long/short position is the same strategy as the one used in the equity market-neutral example. The only difference is the addition of a futures contract to the long position. The process is also identical to the one used to create a pairs trade in the equity market-neutral example, with the addition of extra steps. Steps 2 (c) and 3 (c) are added for the inclusion of the net long Canadian equity futures investment position.

Just as in the equity market-neutral example, the investment manager initiates the trade with $740,000 of investor's capital.

The initiation and eventual reversal of the trade are as follows:

1. Using fundamental analysis, Victor, the investment manager, decides to initiate a pairs trade at a price spread of $22.00 or less, and to reverse the trade when the price spread is at least $28.00.
2. Subsequently, on November 1, 2018, the price spread between RY and TD was at or below the target price-spread of C$22.00. Accordingly, the trade was initiated at a price spread of C$21.86 (shown in Table 21.6, Initiation section).

   Specifically, the trade initiation involves three simultaneous actions:

   a. Shorting $740,000 worth of TD stock (10,000 shares)
   b. Purchasing an equivalent dollar amount of RY stock (7,720 shares) with the proceeds
   c. Establishing a long position in one S&P/TSX 60 futures contract at a value of 900.70 ($180,140.00)

3. Victor reverses this trade by selling RY and buying back TD as soon as the target reversal price-spread of at least $28.00 has been reached. This price spread occurred on March 1, 2019 at a price spread of $28.30 (shown in Table 21.6, Reversal section).

   Specifically, the trade reversal involves three simultaneous actions:

   a. Selling the RY position for proceeds of $798,668 (7,720 shares)

   b. Purchasing 10,000 shares of TD ($751,600) with a portion of the proceeds

   c. Selling the S&P/TSX 60 futures contract at a value of 958.23 ($191,646)
   (Note that, between November 1, 2018 and March 1, 2019, the S&P/TSX 60 index moved from 900.70 to 958.23, which is equivalent to a RoR of 6.39%.)

4. The net financial result of this round-trip trade is a profit of C$58,575, which equates to a 7.92% RoR on the initial C$740,000 investment. This return corresponds to an annualized RoR of 23.75%.

Table 21.6 | Long/Short Equity Strategy

		Initiation (November 1, 2018)			Reversal (March 1, 2019)			Profit/(Loss)			
Security	Position	Market Value (C$/share/Index Value)	# of Shares/Index Value	Total Market Value (C$)	Market Value (C$/Share/Index Value)	# of Shares/Index Value	Total Market Value (C$)	Profit/(Loss) (C$/Share/Contract)	Profit/(Loss) (C$)	Rate of Return (%)	Annualized Rate of Return (%/Yr)
Royal Bank of Canada	Long	96	7,720	740,000	103	7,720	798,670	7.60	58,669.82	–	–
Toronto Dominion Bank	Short	74	10,000	740,000	75	10,000	751,600	–1.16	–11,600.00	–	–
S&P TSX 60 Futures	Long	901	1	180,140	958	1	191,646	11,506.00	11,506.00	–	–
Total									58,575.82	7.92%	23.75%

GLOBAL MACRO

Rather than betting on events that affect only specific companies, funds using a **global macro strategy** make bets on major events affecting entire economies. For example, they might base their strategy on shifts in government policy that alter interest rates, thereby affecting currency, stock, and bond markets.

Global macro funds participate in all major markets, including equities, bonds, currencies, and commodities. They use leverage, often through derivatives, to accentuate the impact of market moves.

Global macro managers monitor the following factors, among others, to find and exploit inefficiencies and dislocations in domestic and foreign markets:

- Trade statistics (import/export)
- Corporate earnings
- Exchange rate dislocations
- Domestic and foreign policy developments
- Investor bias on global economy
- Non-economic investing activities, such as:
  - Corporate or sovereign debt downgrades
  - Political events
  - Central bank intervention in the domestic or foreign exchange market

DID YOU KNOW?

Exchange rate dislocation refers to exchange rates deviating from historical relationships as a result of mispricing that arises in unusual or stressful market circumstances.

Global macro managers typically use either of two different styles of analysis when searching for opportunities in the market: discretionary and systematic. Most managers employ aspects of both types of analyses in their investment decision-making process; however, the styles differ greatly, and managers are typically classified as one or the other type. The management styles are as follows:

Discretionary managers	Discretionary managers construct portfolios using a top-down analysis approach, analyzing the world economy. Their goal is to predict the direction of underlying markets and asset classes.
Systematic	Systematic managers construct portfolios using a bottom-

managers	up analysis approach, employing the use of models and algorithms on large sets of economic data. Their goal is to predict the movement of financial market prices.

EXAMPLE

If the United States were to place tariffs on Japanese exports, it could have resonating effects throughout Japan's manufacturing sectors and greater economy. A global macro manager who believes that such tariffs will be imposed might take short positions in certain securities, such as Japanese manufacturing indices, specific stocks, and the Japanese yen. If the manager is correct, and the tariffs are enacted, the manager stands to earn a return from his positions.

The manager could also hedge these positions by taking long positions in the U.S. manufacturing sectors and companies that he believes stand to gain from the potential imposition of tariffs.

EMERGING MARKETS

Emerging markets alternative funds invest in equity and debt securities of companies in emerging markets. Such a fund is not a strategy in itself; rather, the term refers to any number of hedge funds that invest in the securities of emerging market nations.

The primary difference between an emerging markets alternative strategy fund and an emerging markets mutual fund is the alternative strategy fund's greater ability to use derivatives, short selling, and other complex investment strategies.

Managers rank emerging market countries differently depending on the factors they consider to be the most important drivers of performance, as well as the type of securities they intend to invest in. These factors include, but are not limited to:

- Gross domestic product (GDP) growth rate
- Political stability
- Level of financial market regulation

- Social stability (based on average level of education and health statistics)
- Environmental stability (based on whether a sector or economy is affected by seasonal weather, such as flooding, drought, or earthquakes)

Considering the factors above, many countries can be categorized as an emerging market opportunity, each with its unique risk-reward profile. For example, some emerging market funds concentrate specifically on regions with similar securities, such as commodity development in South America or Africa, or manufacturing in South Asia. Managers can also look for broad-growth opportunities from a range of countries with diverse economies, One such fund type, known as BRIC funds, invest in a range of securities in the emerging markets of Brazil, Russia, India, and China (BRIC).

The opportunity for greater reward also entails greater risk. No matter the security type, emerging market managers face the same underlying risks that managers of securities from developed nations face, coupled with a several additional risks.

Other risks to consider are as follows:

- Political risk, which can lead to extreme volatility in all security markets (equity, debt, currency and real estate)
- Currency risk
- Inflation risk
- Under-developed capital markets, which can entail the following risks:
  - Liquidity risk (risk of thinly traded securities)
  - Wide bid/ask spreads leading to high transaction costs
  - Hedging risk, where laws prohibit short selling
- Transparency risk, where under-developed regulatory systems result in lower-quality financial reporting standards (or lack of same)

Furthermore, because of debt held by foreign investors, and because under-developed capital markets and regulatory systems can limit short positions, many strategies used in emerging markets are long-only.

DEDICATED SHORT BIAS

To be classified as short bias, the fund's net position must always be short. In other words, the fund may have long positions, but on a net basis, the fund must constantly be short.

It is important to distinguish between a dedicated **short bias strategy** and a dedicated short strategy. A dedicated short strategy takes short positions in the portfolio (naked shorts) exclusively. A dedicated short bias strategy can have any number of long positions in the portfolio, but the net exposure must be short. In either case, many managers consider these strategies to be a subset of a long/short strategy.

The advantage of having short and long positions, rather than having only naked shorts, is that the long positions can help keep losses on the shorts manageable during extended bull markets. The disadvantage to this strategy is that, when the market flips into a bear market, the potential losses on the long positions in the portfolio will limit the gains on the short positions.

The main skill involved in managing portfolios with a net short exposure is the ability to correctly identify overpriced securities using fundamental and technical analysis.

The major risk involved in these strategies is the cost of maintaining the margin balances. Managers must have enough cash to continually cover margin calls in case the market moves opposite to their position. If they run out of available funds, then the position will most likely have to be closed at a loss. This risk can be further exacerbated if leverage has been applied to either the short or long positions, and the market moves for an extended period in one direction.

MANAGED FUTURES

A managed futures strategy commonly refers to a portfolio of futures contracts that is actively managed by professionals. Futures can be used by investment managers in a number of hedge fund strategies, including equity market-neutral, long/short, and short biased to name a few. However, some managers, known as commodity trading advisors (CTAs), manage futures exclusively and provide advice on futures investing. The CTA is responsible for advising on managed accounts and pooled investment vehicles such as commodity pools. Specifically, they advise

investors about the value of commodity futures or options. The organizations that manage commodity pools are known as commodity pool operators (CPOs).

Both CTAs and CPOs are regulated separately from traditional investment managers by the Commodity Futures and Trading Commission (CFTC) and the National Futures Association (NFA). These entities oversee reporting requirements and conduct audits on the pools.

Most managed futures managers follow a strategy called trend-following, otherwise known as a momentum strategy. In contrast to traditional investing strategies that focus on value or growth, managers of trend-following strategies seek out securities that have moved in one direction for an extended period.

Two trend-following strategies that managers can employ are as follows:

Time-series momentum strategy	This strategy uses fundamental analysis and historical prices (i.e., technical analysis) to identify market trend signals. The strategy assumes that assets with a positive trend will continue to have a future positive trend, and that assets with a negative trend will have a future negative trend. Once the analysis is complete, the manager will go long the positive-trend assets and short the negative-trend assets.
Cross-sectional momentum strategy	This strategy takes positions in pairs of securities based on relative signals. The manager will take a long position in the security with relatively positive momentum, and short the security with relatively negative momentum. This strategy is usually executed on single stocks, and the long and short positions are equal (so that general market movements have no effect on the pair traded.)

Managed futures are one of the earliest types of hedge fund strategies practised. The universe of futures that managers can invest in is not limited to commodities, as their title would suggest, but includes all types of futures. The four major futures categories are as follows:

- Commodities, such as gold, crude oil, coffee, orange juice, and soybean futures

- Currencies, such as US dollar, yen, and euro futures
- Stock Index, such as Dow, S&P, and NASDAQ index futures, and
- Fixed Income, such as US Treasury bond and foreign sovereign bond futures

Managed futures have the following advantages:

- High liquidity
- Low friction costs (futures trade with ‘tight’ bid/ask spreads)
- Complete price transparency
- Facilitates “direct” access to underlying risk (e.g., gaining exposure to gold bullion prices through a futures contract, rather than equity or fixed-income investing in a gold mining company)

DID YOU KNOW?

Systematic futures managers take positions across a large number of markets that tend to be uncorrelated with each other.

MANAGED FUTURES SUBSET – CURRENCY

Currency managed futures can sometimes be classified under global macro. Managers invest in single or multiple currencies through the use of short-term money market instruments combined with derivative instruments such as futures, forward currencies, swaps, and options. A manager may see an opportunity to profit from a perceived misevaluation of one currency relative to another.

Some managers consider currency to be its own asset class, and several academic papers have suggested that the inclusion of currency in a traditional 60/40 portfolio can increase the expected return for a given level of risk on the efficient frontier.

MULTI-STRATEGY FUNDS

In a multi-strategy fund, a single fund manager invests in multiple fund strategies within a single fund vehicle. For example, for one fund, a manager may mix relative value, event-driven and directional strategies.

Through this type of fund, an investor's exposure to different strategies may change slightly over time in response to market movements or the manager's discretion.

The diversification provided by inclusion of this range of strategies can provide the following benefits:

- Reduced volatility
- Potential for enhanced risk-adjusted returns
- Reduced concentration risk, through:
  - Decreased security-specific risks
  - Decreased strategy-specific risks

In regard to the risks associated with multi-strategy funds, there are several integrated layers. First, each underlying strategy is exposed to specific risks. Second, the more strategies that are brought on by the manager, the less time the manager will have to monitor the securities held in each strategy and market movements at large.

It is important to note the differences between a multi-strategy hedge fund and a fund of funds (FOF). As mentioned previously, the multi-strategy manager is a single manager who operates several different hedge fund strategies, whereas a FOF manager invests capital across a range of strategies managed by different managers. Fund-of-funds investing has an increased diversification benefit because the manager can invest with more managers and strategies than a single manager would be able to. Moreover, FOF investing further reduces concentration and operational risk.

The main criticism of FOF investing is that, by using a multi-tier level of managers, the added management fees erode returns.

LEVERAGED ETF STRATEGY

A leveraged ETF is designed to achieve returns that are multiples of the performance of the underlying index it tracks. The use of leverage, or borrowed capital, makes the fund more sensitive to market movements. The fund uses borrowed capital in addition to investor capital to provide a higher level of exposure to the underlying index. Typically, a leveraged ETF uses $2 of leverage for every $1 of investor capital (commonly referred to

as two times or double). The goal is to generate a return made with the borrowed capital that exceeds what it cost to acquire the capital itself.

A leveraged ETF will multiply the reference asset's returns by more or less than the stated leverage factor, over periods longer than their rebalancing frequency. Whether more or less depends on the path of the returns over the longer time horizon.

For example, an ETF designed to give double the daily return of a reference asset will not provide double the return of the reference asset over a month's time. If the reference asset steadily increased over the month, the leveraged ETF return would be more than double. If the reference asset increased by the same amount during a month, but did so over a highly volatile path, the leveraged ETF return would be considerably less than double. The reason for this lies in the portfolio management strategy of a daily leveraged ETF.

In the example of an ETF designed to give double the daily return of a reference asset, the leveraged ETF gains net asset value when the reference asset gains value. A 3% rise on an index value of 100 results in a value of 103. The ETF assets, with $100 of borrowed money, rise from $200 to $206. The leverage factor is now less than 2 (calculated as total assets/account equity = $206/$106 = 1.94).

To restore the double leverage, the ETF must add to its leveraged position and borrow more to increase net assets from $206 to $212 (calculated as $212/$106 = 2). By adding to the leveraged position, the ETF is averaging up. Typical portfolio management strategy calls for averaging down, buying more positions in the security as it falls in price. New derivatives positions added at a higher cost increase exposure to one side of the market.

This strategy works well when the price of the reference asset keeps going up. But with a higher dollar exposure to one side, the ETF is vulnerable to more losses than it would be if it did nothing and the reference asset fell. Compounded repeatedly, the leveraged ETF in a volatile market will deviate from double the holding period return. Investors in leveraged ETFs will not only need to predict the return of the reference asset but will also have to predict the path of the return.

INVESTMENT STRATEGIES MOST APPROPRIATE FOR ALTERNATIVE MUTUAL FUNDS

Alternative mutual funds need to be compliant with regulatory limits with respect to the use of derivatives, leverage, short selling, and illiquid securities. These limitations prevent or discourage liquid alternative funds from utilizing some of the strategies that are available to hedge funds who have no such regulatory limitations.

The requirement for an alternative mutual fund to calculate a daily net asset value (NAV) and offer daily liquidity for investor redemptions favours the use of certain alternative investment strategies.

The following bullet points provide an approximate ranking of alternative investment strategies on the combined basis of fund liquidity and ability to calculate accurate NAVs. These investment strategies are listed from most liquid to least liquid:

- Managed futures/commodities
- Equity market-neutral and long/short equity
- Global macro
- Dedicated short bias
- Merger or risk arbitrage
- Fixed-income arbitrage
- Convertible arbitrage
- High-yield bonds and distressed securities
- Emerging markets
- Private equity and equity real estate

The alternative investment strategies primarily investing in futures or large capitalization equities will provide the highest degree of fund liquidity. These would be the strategies listed in the first six bullet points above (from managed futures/commodities to fixed-income arbitrage).

The second most liquid investment strategies would be the strategies for the next two bullets points (convertible arbitrage, high-yield bonds and distressed securities). These fixed-income-related alternative investment strategies involve investment in corporate bonds, including issuers that have very low credit ratings. They are used by only a relatively small number of fixed-income investors. They typically offer less fund liquidity than the first category.

The third most liquid alternative investment strategy invests in emerging markets. This alternative investment strategy invests in equities listed on foreign stock exchanges. Liquidity in emerging markets is generally much lower than North American markets.

Finally, private equity and equity real estate are the most illiquid of all alternative investment strategies listed.

Most alternative mutual funds utilize the strategies listed in the first six bullet points above. There is a much smaller use of the second and third most liquid alternative investment strategies. Finally, very few alternative mutual funds utilize private equity or equity real estate investment strategies due to their inability to provide accurate fund NAVs and support investor redemption requests.

ALTERNATIVE STRATEGY CATEGORIES

Can you identify the category that each alternative strategy belongs to? *Complete the online learning activity to assess your knowledge.*

ALTERNATIVE STRATEGY FUND PERFORMANCE MEASUREMENT

3 | Discuss risk measures and risk-adjusted return measures to alternative strategy fund investments.

4 | Discuss benchmarking of alternative investment performance.

There are several risk and risk-adjusted measures that are important for investors interested in alternative strategies to understand when selecting an investment. While earlier chapters introduced the concept of standard deviation and the Sharpe ratio, and they are touched on briefly below, this section also introduces you to the important concepts of return distributions, downside risk and maximum drawdowns.

RISK MEASURES

ABSOLUTE RISK

Absolute risk is defined as the total variability or volatility of returns. Total variability incorporates all sources of risk embedded in returns, including first- and second-order risks, and does not distinguish between upside and downside volatility.

STANDARD DEVIATION

One measure of risk that has gained widespread acceptance within the securities industry is the standard deviation of returns.

The standard deviation of returns, which is derived from the variance of returns, measures the extent to which returns differ from some average or expected level of return. The more individual returns differ from the average or expected return, the bigger the variance and standard deviation and, hence, the greater the risk.

If the standard deviation is calculated using, say, monthly returns, then the standard deviation is a monthly standard deviation, that is, the average deviation of monthly returns from the average monthly return.

For example, the monthly standard deviation of the ABC fund based on three years of monthly returns was 3.93%.

If the standard deviation is calculated using anything other than annual returns, it is often annualized so that it can be compared to the standard deviation of other investments, which may or may not have been calculated using similar time periods.

To calculate the annual standard deviation from the monthly standard deviation, for example, the monthly standard deviation is multiplied by the square root of 12.

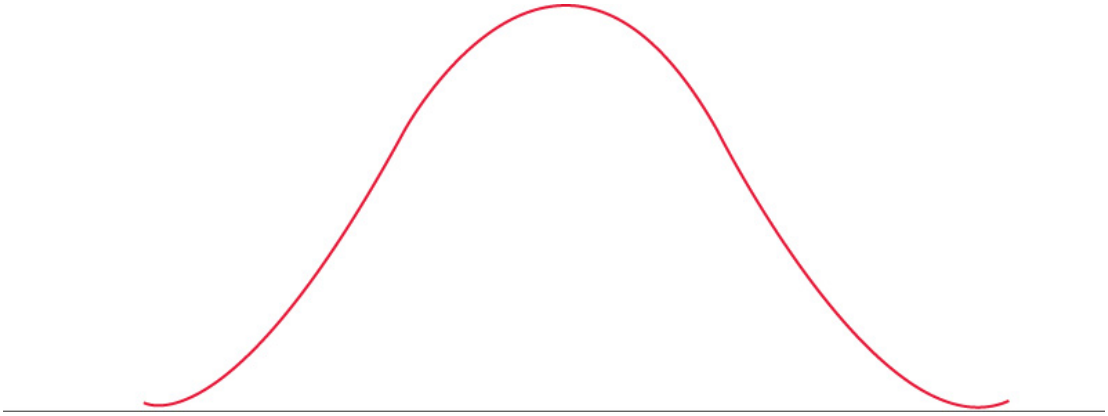
For example, based on the monthly standard deviation of 3.93%, the annual standard deviation was 13.61%.

The standard deviation gives a good indication of the dispersion of returns only when returns are or are approximately normally distributed. A return distribution is a graphical depiction of the potential returns plotted against

their probability of occurrence. The normal distribution is the familiar bell-shaped curve.

Figure 21.9 shows a normal distribution curve.

Figure 21.9 | Normal Distribution



If returns are normally distributed, then the following relationships hold:

- approximately 68% of all returns lie within one standard deviation of the average or expected return;
- approximately 95% of all returns lie within two standard deviations of the average or expected return;
- approximately 99% of all returns lie within three standard deviations of the average or expected return.

EXAMPLE

If the return on the ABC fund were normally distributed with an average monthly return of 0.57% and a standard deviation of 3.93%, we would expect to find that:

- 68% of all returns lie within -3.36% and 4.50% (equal to the average return +/– one standard deviation. The calculations are 0.57% - 3.93% = -3.36% and 0.57% + 3.93% = 4.50%);
- 95% of returns lie within -7.29% and 8.43%;
- 99% of returns lie within -11.22% and 12.36%.

Most alternative strategy fund returns are not normally distributed. To get a better picture of the dispersion of alternative strategy fund returns, we need to understand two risk measures – skew and kurtosis – that determine whether a return distribution is normal or not.

SKEW

Skew measures the extent to which a distribution is tilted toward negative or positive returns. Positive skew indicates a tendency to obtain returns above what is observed with the normal distribution, and conversely, negative skew indicates a tendency to obtain returns below the normal distribution.

KURTOSIS

For alternative strategy funds, extreme high returns or extreme low returns which are called tail events are more likely to occur than for funds with a more normal distribution, because certain market and macroeconomic changes have a significant impact on alternative strategy funds. In such cases, the distribution of returns is said to exhibit an elevated level of kurtosis**.**

Kurtosis measures the tendency of a return distribution either to have values that collect around the average of all returns (lower kurtosis) or conversely, to have values that collect toward the tails of the distribution (higher kurtosis). With high kurtosis, an alternative strategy fund's returns will be more extreme, with either higher returns or lower returns than those that would be predicted by a normal distribution.

Some alternative strategies may have both negative skew and positive excess kurtosis, meaning that there is a higher-than-normal likelihood of experiencing both negative returns and more extreme returns (both positive and negative). Hence, it is important for investors and advisors to understand the characteristics of the alternative strategy fund.

DOWNSIDE RISK

The problem with standard deviation as a measure of risk is that it penalizes upside volatility as well as downside volatility. That is, an alternative strategy fund that has posted several greater-than-average returns – which most investors would consider a good thing – will have a

large standard deviation. Based on this alone, the fund would be considered risky.

Therefore, several risk measures have been developed to analyze the downside volatility of an asset, which is the type of volatility most investors are concerned about. Since most alternative strategy funds target absolute – or positive – returns, and the preservation of capital, measures of downside risk are popular alternative strategy fund performance indicators.

If alternative strategy fund returns were normally distributed, the risk rankings using measures of downside risk would be no different from rankings based on measures of absolute risk. But since alternative strategy fund returns are not normally distributed and have a greater tendency to have negative skew and positive excess kurtosis, the focus on downside risk becomes all the more important.

DRAWDOWN, MAXIMUM DRAWDOWN, AND TIME TO RECOVERY

Drawdowns represent peak-to-trough declines during a specific period of time. They are expressed as a percentage of the peak value. Individual drawdowns measure the percentage loss an investor would have realized if he or she had bought the fund at its peak and subsequently sold it at its lowest point. A new drawdown begins only when the fund surpasses its previous peak value.

Maximum drawdown is the largest drawdown during a specific period of time.

Time to recovery is the number of months required to move from a trough to a new peak. Some alternative strategy fund managers and analysts define time to recovery as the time from peak to trough to peak.

EXAMPLE

Over the three years ended December 2020, the DEF fund had three drawdowns:

24.38% from January 2018 to March 2019;

1.28% from February 2020 to March 2020;

10.25% from April 2020 to August 2020;

and three recovery times:

11 months from March 2019 to February 2020;

1-month March 2020 to April 2020;

4 months August 2020 to December 2020.

The maximum drawdown was the 24.38% decline from January 2018 to March 2019.

The maximum drawdown and the corresponding time to recovery is a useful measure of alternative strategy fund quality, given the absolute return nature of alternative strategy funds. These measures are also readily verifiable and comparable from one fund to another.

PERCENTAGE OF PROFITABLE MONTHS / LOSING MONTHS

This measure indicates how successful an alternative strategy fund manager is on a monthly basis. A manager with a higher number of profitable months is generally preferred. However, this measure can be misleading. It is the magnitude of gains or losses that really matters. A manager with large losses but small gains is less desirable, even if he or she has 80% profitable months and 20% losing months.

For example, over the three years ended December 2020, 61% (22 out of 36) months were profitable for GHI fund, while 39% (14 out of 36) were not.

RISK-ADJUSTED RETURNS

Risk-adjusted return measures compare the returns generated by a fund to the level of risk taken to earn those returns. Because they incorporate both the risk and return of a fund, they can be used to compare funds that employ different strategies. Probably the best-known risk-adjusted return measure is the Sharpe ratio which is discussed below. Other measures include Jensen’s alpha, Sortino ratio, Calmar ratio, and the Sterling ratio.

SHARPE RATIO

The Sharpe ratio measures excess returns generated above the risk-free rate per unit of risk as measured by the standard deviation. It can be used to compare the returns across various investments and to distinguish between returns obtained at various levels of risk. On its own, the Sharpe ratio of a fund indicates whether the fund's average return was greater or less than the average risk-free return. A positive Sharpe ratio indicates that the fund's average return was greater than the risk-free return, while a negative Sharpe ratio indicates its average return was less than the risk-free return.

However, by comparing the Sharpe ratio of one fund to the Sharpe ratio of a market index or to the Sharpe ratio of other funds, you can determine whether that fund has out- or under-performed the benchmark or other fund on a risk-adjusted basis.

For example, over the three years ended December 2018, the S&P/TSX Composite Index had a Sharpe ratio of 0.16. When compared to the ABC fund's Sharpe ratio of 0.09, it appears that the ABC fund has under-performed the S&P/TSX Composite Index on a risk-adjusted basis.

PERFORMANCE BENCHMARK

Absolute returns are the key investment objective for alternative strategy fund investors (and therefore alternative strategy fund managers). Accordingly, a zero rate of return represents the performance benchmark for alternative strategy fund managers. Alternative strategy fund investors are generally willing to forego potentially higher rates of return in exchange for lower rates of return that are accompanied by positive rates of return – even in stressful market conditions. To be consistent with this investment objective, alternative strategy fund managers' performance fees are normally calculated based on the (positive) spread realized between the fund's rate of return and a zero return.

ALTERNATIVE STRATEGY RISK MEASURES AND PERFORMANCE

Can you identify the different risk and performance measures? *Complete the online learning activity to assess your knowledge.*

DUE DILIGENCE AND SUITABILITY OF ALTERNATIVE STRATEGIES

5 | Describe the due diligence process that should be conducted when contemplating investment in an alternative strategy fund.

6 | Identify the investor groups for whom liquid alts might be most suitable.

There are important questions to be answered as part of a comprehensive appraisal by advisors when considering an investment in alternative funds.

KEY DUE DILIGENCE AREAS FOR ADVISORS

In September 2018, the Canadian branch of the Alternative Investment Management Association (AIMA) published AIMA Due Diligence Considerations for Retail Investment Advisors. The publication provides a list of the top due diligence questions for retail investment advisors to use when considering investment in hedge funds and liquid alternatives. This document categorized questions about the investment manager and the fund's strategy.

INVESTMENT MANAGER QUESTIONS

- What is the background and experience of the investment manager and the investment team?
- What is the governance surrounding the investment manager and investment team?
- What are the features of the investment manager's compliance culture?
- What risk management frameworks are in place (independent reporting lines, operational risk management, conflicts of interest, etc.)?
- Are the members of senior management of the investment manager, the portfolio manager and/or the fund directors personally invested in the fund?

STRATEGY QUESTIONS

- What is the fund's investment objective and principal investment strategies?
- Have the objectives of the investment strategy changed in the past five years?
- From where are the underlying positional data, market data and any underlying models sourced for this strategy? Position limits?
- Who makes the portfolio management decisions and how are they made?
- Performance history? In what type of markets would this strategy be expected to outperform or underperform?
- What method(s) does the investment manager use to measure the total risk of a portfolio using this strategy?
- How much financial leverage does the fund use on average? Limits? Sources?
- Are there any capacity constraints?
- Offering documents, subscription agreements, and process for purchases and redemptions? Fees? Performance fees and calculation methodology?
- Valuation policy and frequency?
- How long would it take in normal market conditions and stressed market conditions to liquidate the fund without incurring unusual costs?
- What portfolio data does the investment manager provide to investors, and with what frequency and time lag?
- Who are the outsourced service providers of the fund (i.e., prime broker, auditor, custodian, administrator, legal)?

A COMPREHENSIVE DUE DILIGENCE PROCESS

This section outlines the more comprehensive, but not exhaustive, due diligence process that some firms perform before allowing alternative strategy funds to be sold by their firm. This process was originally developed for evaluating hedge funds, but many of the points apply to alternative mutual funds as well.

There are eight primary areas of inquiry:

1. Structure of the investment management organization
2. Investment management information
3. Risk analysis
4. Operations
5. Fund structure
6. Investment performance
7. Account structure and composition
8. Fees

Each of these eight areas of inquiry are examined in detail below.

1. STRUCTURE OF INVESTMENT MANAGEMENT ORGANIZATION

- What are the origins and history of the company?
- What is the ownership structure of the company and its affiliated companies (provide an organizational chart)?
- With which regulatory authority is the company registered?
- When was the last regulatory audit completed? What were the results? Can this be verified?
- When was it registered?
- What information is available about the principals and key employees (include residence, past employers, colleges or universities attended, outside activities and organizations, etc.)?
- Which senior managers are in charge of the following areas:
  - Trading/Front Desk?
  - Programming?
  - Administration?
  - Research & Development?
  - Back Office Operations?
  - Marketing/Sales?

    - Reporting/performance questions?
    - Systems?
    - Other?
- What is the average number of years of experience directly relating to current tasks for key personnel (distinguish between experience with the firm and prior experience)?
- Do any of the firm's principals have other business involvements? How much of their professional time is dedicated to each?
- Has the firm ever lost any key personnel, and if so, why?
- Are the principals and staff investors in the fund? What is the approximate percentage of the principals' net worth invested in the fund?
- What are the firm's compensation arrangements for professional staff (in particular, indicate any bonuses in the form of equity stakes)?
- Are there any material, criminal, civil, or administrative proceedings pending or threatened against the firm or any of its principals, or have there ever been such proceedings?
- What are the current and next priorities for the firm (asset growth, increase/improvement in staffing, implementation of new trading strategies/programs, etc.)?

2. INVESTMENT MANAGEMENT INFORMATION

- What is the size of assets under management?
- What were the assets under management at the beginning of each of the last five years?
    - Fund assets
    - Strategy assets
    - Total firm assets
- Who is on the investment committee and what is their tenure on the committee? How many decision makers are there?
- What trading approach or strategies are used? If more than one approach is used for the fund under review, how do the various

systems differ from each other, and upon what basis is capital allocated to each approach?

- What is the manager's experience trading the strategies employed by the fund?
- Is the general investment approach purely systematic, purely discretionary, or a combination of the two? In the former case, can the trader/manager override the system?
- What makes the strategy (and structure) unique? (What is the firm's "edge"?) Is this demonstrable?
- What makes the manager's strategy different from those of other managers?
- Is the fund's investment mandate broadly defined or very specific? How much latitude does the manager have to change the fund's mandate?
- What is the manager's investment strategy for today's market, if any?
- What are the strengths/weaknesses of the investment strategy?
- In which markets would the strategy perform best?
  - Bull trends
  - Bear trends
  - Congestion zones
  - The same in all three markets
  - Bull and bear trends, but not congestion zones
  - High volatility
  - Low volatility
  - Other?
- What are the drivers of risk and return within the strategy?
- Can the firm's claims to success in different market regimes be documented?
- Does the strategy have a long or short bias?
- Is leverage used? If so, how much? How does the manager define and calculate leverage?

- What is the maximum historical leverage, minimum historical leverage, maximum authorized leverage, and typical leverage employed? If leverage fluctuates, who determines the level of leverage at any one time and on what basis?
- What is the typical liquidity of the underlying investments of the fund? In the face of redemption pressures, will the fund be able to unwind/liquidate its positions?
- To what extent does the fund use derivatives? If the fund does use derivatives, to what extent are these exchange-traded derivatives (options and futures) versus OTC derivatives (forwards, options, and swaps)?

3. RISK ANALYSIS

- How does the manager identify and quantify risk?
- How does the manager control or manage risk?
- Does the manager perform stress tests on the portfolio?
- What is the maximum, average range, and value as of today's date for the fund's beta?
- What transparency is the manager willing to provide? Is this enough to determine the risks that the manager is taking?

4. OPERATIONS

- Who are the firm's service providers?
  - Prime broker (if applicable)
  - Custodian
  - Administrator
  - Auditor
  - Legal counsel
- Are the service providers reputable?
- Where are the fund's assets held? Are they moved offshore at any time?

- Is the fund's net asset value per unit (NAV) verified monthly by an independent NAV calculator, e.g., the custodian of the fund?
- Have there been any material change relating to the fund's service providers over the last three years?

5. FUND STRUCTURE

- What is the form of the offering (e.g., prospectus, offering memorandum or information statement)? Why was this structure selected?
- Is the fund advantageous or disadvantageous for tax-exempt investors or taxpaying investors? Are there taxable annual distributions to investors?
- What are the liquidity terms?
- Can the fund suspend or cancel redemptions? If so, under what conditions?
- What compensation is paid to advisors:
  - For the initial sale of the fund?
  - In ongoing trailer fees?
  - Percentage of performance fee?
- Do advisors receive any other form of compensation for the sale of the fund?

6. INVESTMENT PERFORMANCE

- When did the track record begin?
  - Is any of it pro forma?
  - If so, how and on what basis were the numbers produced?
  - Is all of it audited?
  - Is it all net of fees?
- Was the annual return generated by large gains in one or two months, or was the annual gain spread across the period?
- Is there any currency exposure? For example, is the currency invested different from the underlying investments/NAV currency? If so, is there

a total currency hedge removing all currency exposure?

- What have been the three largest drawdowns, as a percentage of equity, for each fund and the recovery period for each one? Why did they happen? What contributed to the recovery? Did the manager change strategy or did the market improve? Were there any changes in the overall strategy as a result?
- How volatile is the fund compared to its peers?
- Has the strategy or market traded been changed due to new capital influx?
- What is the most appropriate benchmark against which to measure the performance of the fund? Why?
- What is the level of assets under management beyond which it would be difficult to pursue the same trading strategies and methodologies without significantly affecting the expected results?
- At what size will the fund/strategy stop accepting new money? Why?
- What would be the “perfect storm” for the fund? That is, what is the worst possible environment for the strategies used and what would be the decline in value if this situation occurred?

An additional investment performance consideration is the extent to which a fund strayed or drifted from its original mandate. Drift could include moving into new markets or new risk exposures that previously had not been experienced. Strategy drift is often a signal that the initial investment strategy is failing to generate the returns expected. Increased leverage, for example, may be a sign that the fund’s managers are using leverage to prop up the performance of a failed investment strategy. The higher leverage may be masking some underlying problems with the strategy while at the same time increasing the fund’s risk.

7. ACCOUNT STRUCTURE AND COMPOSITION

- What is the current number of clients?
- What is the mix among individuals, institutions, managed accounts and fund of funds?
- What is the percentage of program assets and the number of accounts for the following type of investors and do they differ substantially from

other programs that the firm offers?

- Employee/proprietary
- Institutional
- High net worth
- Fund
- Fund of fund
- Offshore

- What percentage of the fund is owned by the top 5 –10 largest investors?
- If applicable, what percentage of the investors is offshore?

8. FEES

- What does the fund charge for:
  - Management fees?
  - Incentive fees?
- What is the fund's:
  - Hurdle rate?
  - High water mark?
- Are fees paid as accrued on a monthly, quarterly, or annual basis?
- Are there any soft dollar arrangements or other implicit arrangements with prime brokers, sub-funds or other suppliers?

DID YOU KNOW?

A soft dollar arrangement is typically an arrangement to pay brokerage firms for their services through commission revenue, rather than through an invoice that requires direct payment with hard dollars. More details on soft dollar arrangements can be found in Chapter 27.

SUITABILITY

Determining suitability of alternative strategies for clients is not easy. They are generally more complex than traditional investments and have traditionally been perceived as riskier. However, in reality they can be used to actually mitigate risk.

Furthermore, although alternative strategies are generally lumped together as an asset class, their investment objectives, strategies, and underlying investment portfolios are very diverse. As a result, returns can vary, as can be observed in Table 21.7. For that reason, it may be inappropriate in some cases to allocate a proportion of a client's asset mix simply to "alternatives". It may be preferable to sub-allocate to alternative strategies within each asset class where appropriate. Ongoing consideration of macro market factors, as well as individual client circumstances, will be necessary when determining the suitability of an alternative fund or strategy.

Table 21.7 shows compounded rates of return over a 15-year period, until the end of 2019, for the various types of alternative strategies.

Table 21.7 | Performance Comparison of Alternative Strategies

Return Index	Compound Annual Rate of Return (%/Year)
EurekaHedge CTA/Managed Futures Index	3.16
EurekaHedge Event Driven Index	4.96
EurekaHedge Long/Short Index	3.80
EurekaHedge Global Macro Index	3.53
BarclayHedge Fixed Income Arbitrage Index	3.76
BarclayHedge Equity Market Neutral Index	2.50
BarclayHedge Fund of Funds Index	2.88

Source: Bloomberg

As liquid alternatives become increasingly available, it is important to recognize that they are not appropriate for all investors.

Advisors have an obligation to perform a suitability analysis on clients, even if those clients are, for example, considered accredited investors. Just because a client meets certain minimum requirements to qualify as an accredited investor it does not mean they automatically have the experience, education, sophistication, appropriate objectives and risk tolerance to invest in hedge funds.

Generally speaking, investors in hedge funds should have excellent product knowledge, high risk tolerance, a long term investment horizon and little or no short term need for liquidity with respect to the money invested in the hedge fund.

In so far as retail investors are concerned, broadly speaking, liquid alternatives have appeal to and may be suitable for investors who have the following characteristics and investment priorities:

- Have a good understanding of certain important portfolio theory concepts, capital markets and investment strategies
- Focused on specific outcomes
- Have a medium-term investment horizon
- Have short- to medium-term liquidity needs

KNOWLEDGE

It is likely that the majority of investors in liquid alts will have experience in investing in mutual funds and need to understand the key differences. Examples of important investor knowledge areas include:

- The concepts of diversification, efficient markets, alpha and absolute returns
- How derivatives work and are used within the fund
- Investment strategies including short selling and the use of leverage

FOCUSED ON SPECIFIC OBJECTIVES

The primary objectives of investing in liquid alternatives are to achieve absolute returns along with improving risk-adjusted returns and achieving greater diversification. Therefore, liquid alts are best suited for investors having these objectives.

MEDIUM-TERM INVESTOR HORIZON

Reflecting the overall investment objective of these alternative strategy funds, retail investors who have a medium investment horizon will be the ones best-positioned to benefit from the counter-cyclical nature of many of the underlying investments. In other words, investors seeking short-term capital gains should consider conventional mutual funds and ETFs while those with medium-term time horizons should consider alternative mutual funds.

LIQUIDITY NEEDS

If an investor meets the requirements to invest in hedge funds and does not have nor anticipates having short- or medium-term liquidity needs, hedge funds rather than liquid alternatives might be the more appropriate investment as the potential return is higher. However, for an investor prioritizing liquidity along with risk-adjusted returns and greater diversification, liquid alternatives provide a good investment choice.

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, you learned about key aspects of alternative strategies, performance, and due diligence:

- Relative value strategies attempt to profit by exploiting inefficiencies or differences in the pricing of related stocks, bonds, or derivatives. Event-driven strategies seek to profit from unique corporate structure events.

Those events include mergers, acquisitions, stock splits, and stock buybacks. Directional strategies seek to profit from anticipated movements in the market price of securities.

- Relative value strategies include equity-market neutral, convertible arbitrage, and fixed-income arbitrage.
- Event-driven strategies include merger or risk arbitrage, distressed securities, and high-yield bonds.
- Directional strategies include long/short equity, global macro, emerging markets, dedicated short bias, and managed futures.
- Multi-strategy funds entail a single fund manager investing in multiple fund strategies within a single fund vehicle. This compares to a FOF manager investing capital across a range of strategies managed by different managers.
- The requirement for an alternative mutual fund to calculate a daily net asset value and offer daily liquidity for investor redemptions favours the use of certain alternative investment strategies. The most liquid strategies would include managed futures, equity market-neutral, long/short equity, global macro, dedicated short bias, merger or risk arbitrage, and fixed-income arbitrage.
- Standard deviation has gained widespread acceptance within the securities industry as a measure of risk. Standard deviation gives a good indication of the dispersion of returns only when returns are or are approximately normally distributed.
- Skew measures the extent to which a distribution is tilted toward negative or positive returns. Kurtosis measures the tendency of a return distribution to have values that collect around the average of all returns (lower kurtosis) or to have values that collect toward the tails of the distribution (higher kurtosis).
- Drawdowns represent peak-to-trough declines during a specified period, expressed as a percentage of the peak value. Maximum drawdown is the largest drawdown during a specific period. Time to recovery is the number of months required to move from a trough to a new peak, though some define the time to recovery as the time from peak to trough to peak.

- Other measures of risk include percentage of profitable months and percentage of losing months, and risk-adjusted returns such as the Sharpe ratio.
- Key due diligence questions can be categorized as investment manager questions and strategy questions.
- A comprehensive due diligence process might include eight primary areas of inquiry, including the structure of the investment management organization, investment management information, risk analysis, operations, fund structure, investment performance, account structure and composition, and fees.
- Determining the suitability of alternative strategies is not easy and it is important to recognize that they are not appropriate for all investors. Broadly speaking, liquid alternatives appeal to investors who have a good understanding of important portfolio theory concepts and strategies, focus on specific outcomes, have a medium-term investment horizon, and have short- to medium-term liquidity needs.

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 21 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 21 FAQs.

Other Managed Products 22

CHAPTER OVERVIEW

In this chapter, you will learn about additional types of managed products, including their structure and characteristics, their regulatory issues and tax considerations.

LEARNING OBJECTIVES	CONTENT AREAS
1 | Describe the features and structure of segregated funds.	**Segregated Funds**
2 | Discuss the advantages and disadvantages of Labour-Sponsored Venture Capital Corporations.	**Labour-Sponsored Venture Capital Corporations**
3 | Describe the features and structure of closed-end funds.	**Closed-End Funds**
4 | Differentiate among the types of income trusts.	**Income Trusts**
5 | Describe the advantages, disadvantages, and process for investing in private equity.	**Listed Private Equity**

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

allocation

annuitant

Assuris

beneficiary

business trust

Canadian Life and Health Insurance Association Inc.

closed-end discretionary funds

closed-end funds

contract holder

creditor protection

death benefits

income trust

individual variable insurance contracts

insurable interest

interval funds

irrevocable designation

labour-sponsored venture capital corporations

maturity guarantees

notional units

Office of the Superintendent of Financial Institutions

private equity

probate

real estate investment trusts

reset

revocable designation

segregated fund

INTRODUCTION

In the last five chapters, we discussed mutual funds and exchange-traded funds, which are the most common types of managed products, along with alternative funds such as hedge funds and liquid alts. In this chapter, we look at other types of managed products that have been developed to meet specific investor needs.

All managed products have some characteristics in common with mutual funds. For example, they all pool capital to purchase securities according to a specific investment mandate. They are all managed by either an active or passive manager who is paid a fee to

carry out the mandate. And they all share certain features, such as economies of scale and low cost of diversification.

However, given that the various types of managed products are designed to meet particular needs, each type also has unique characteristics.

In this chapter, we discuss the characteristics of various managed products, including segregated funds and income trusts, among others. You will learn how the different products are structured, regulated, and taxed.

SEGREGATED FUNDS

1 | Describe the features and structure of segregated funds.

Segregated funds are a type of pooled investment much like a mutual fund, but with a difference: they are considered an insurance product. The proceeds received by the insurance company are used to purchase underlying assets, and then units of the segregated fund are sold to investors.

Like mutual funds, segregated funds offer services such as professional investment management and advice, the ability to invest in small amounts, and regular client statements. However, segregated funds also have unique features that enable them to meet special client needs, such as maturity protection, **death benefits**, and **creditor protection**.

REGULATION OF SEGREGATED FUNDS

Segregated funds are insurance contracts, known as **individual variable insurance contracts**, between a **contract holder** and an insurance company. For that reason, they are regulated by provincial insurance regulators. There are three regulatory bodies that oversee the activities of segregated funds.

Canadian Life and Health Insurance Association Inc.	Each province and territory has accepted the **Canadian Life and Health Insurance Association Inc**. guidelines as the primary regulatory requirements. Federal insurance regulators do not regulate the sale of segregated funds.
Office of the Superintendent of Financial Institutions	The **Office of the Superintendent of Financial Institutions** is responsible for ensuring that federally regulated insurance companies are adequately capitalized under the requirements of the federal *Insurance Companies Act*.
Assuris	**Assuris** is the insurance industry's self-financing provider of protection against the loss of policy benefits in the event of the insolvency of a member company. The Assuris guarantee covers only the death benefits and **maturity guarantees** in a segregated fund contract. The assets of the funds themselves are not eligible for Assuris protection because they are segregated from the general assets of the insurance company. Assuris' role is to supplement any payments made by a liquidator to fulfill the insurance obligations under a segregated fund contract. The maximum compensation that can be awarded under an individual segregated fund policy is $60,000 or 85% of the promised guaranteed amounts, whichever is higher. These limits apply both to amounts held by individuals in registered plans and to contracts held outside registered plans. Registered plans include registered retirement savings plans (RRSP),

registered educations savings plans (RESP), and registered retirement income funds (RRIF).

DID YOU KNOW?

Because segregated funds are regulated as insurance products, you cannot sell or advise on them without a proper licence. In Canada, you must complete a separate insurance licensing course that covers the curriculum prescribed by the Canadian Council of Insurance Regulators. For more information, visit the website of the Canadian Securities Institute at www.csi.ca and review the *LLQP Insurance Course* description.

STRUCTURE OF SEGREGATED FUNDS

Because of their legal structure, segregated funds do not issue actual units or shares to investors, because doing so would imply ownership. Instead, an investor is assigned **notional units** of the contract—a concept that measures a contract holder's participation and benefits in a fund. This approach also makes it possible to compare the investment performance of segregated funds with those of mutual funds.

Essentially, the contract covers the three different parties described below.

The contract holder	The contract holder is a person who buys the segregated fund contract. The contract can be held within a registered plan belonging to the holder, such as an RRSP, RESP, RRIF, or TFSA. In such cases, the contract holder and the **annuitant** must be the same person.

	When the contract is held outside a registered plan, the contract holder can be someone other than the annuitant.
The annuitant	The annuitant is the person whose life is insured by the contract and on whose life the insurance benefits are based. There are restrictions on whose life a contract holder can base a contract. The general rule in most provinces is that the contract holder, at the time the contract is signed, must have an **insurable interest** in the life or health of the annuitant. Otherwise, the proposed annuitant must consent in writing to have his or her life insured.
The beneficiary	The **beneficiary** is the person or persons who will receive the benefits payable under the contract upon the death of the annuitant. (A contract may have more than one beneficiary.) The contract holder may designate one or more beneficiaries or may designate his or her estate as the beneficiary. The beneficiary does not have to be a person. For example, a charitable organization can be a beneficiary. The designation of beneficiary can be revocable or irrevocable: • A **revocable designation** allows the contract holder to alter or revoke the beneficiary's status. • An **irrevocable designation** does not allow the contract holder to change the rights of a beneficiary without the beneficiary's consent.

DID YOU KNOW?

You have an insurable interest in the life or health of another person if you derive a financial or other kind of benefit from that person. For example, a person who depends for a living on the income of a spouse has an insurable interest in the spouse.

SEGREGATED FUND FEATURES

Segregated funds offer investors a variety of unique features, including maturity guarantees, death benefits, and creditor protection.

MATURITY GUARANTEES

One of the fundamental contractual rights associated with segregated funds is the promise that the contract holder or the beneficiary will receive at least a partial guarantee of the money invested.

Provincial legislation requires that the maturity guarantee be at least 75% of the amount invested over a contract term of at least a 10-year holding period or upon the death of the annuitant. To offer greater capital protection, some insurers have increased the minimum statutory guarantee to 100%. The 100% guaranteed funds are often based on a longer term-to-maturity, such as 15 years. They also feature a higher management expense ratio (MER) than the 75% guaranteed funds, reflecting the higher risks of offering full maturity protection after 10 years.

Some insurers offer flexible guarantee options. Protection may be provided as 75% maturity guarantee and 75% death benefit, 75% guarantee and 100% benefit, or 100% guarantee and 100% benefit, depending on the contract.

One benefit of a maturity guarantee is that the client may participate in rising markets without setting a limit on potential returns. At the same time, subject to the 10-year holding period, the client's invested capital is protected from loss.

AGE RESTRICTIONS

Insurance companies offering 10-year maturity guarantees that exceed the statutory requirement of 75% may impose restrictions on who qualifies for the enhanced guarantee. The restriction might be that the person on whose life the death benefits are based must be no older than 80 at the time the policy is issued. Alternatively, the contract holder might receive a reduced level of protection under the policy when the annuitant reaches a certain age.

RESET DATES

Although segregated fund contracts have at least a 10-year term, they may be renewable when the term expires, depending on the annuitant's age. If renewed, the maturity guarantee on a 10-year contract resets for another 10 years. A **reset** allows contract holders to lock in the current market value of the fund and set a new 10-year maturity date.

Reset dates can be anywhere from daily to once a year. A daily reset benefits clients in both rising or falling markets. In a rising market, when the net asset value of fund units is increasing, the daily reset enables contract holders to continually lock in accumulated gains. In a falling market, when net asset values are falling, contract holders are protected because the guarantee is based on the previous high.

DEATH BENEFITS

The death benefits associated with segregated funds meet the needs of clients who want exposure to long-term asset classes while ensuring that their investments are protected in the event of death.

The principle behind the death benefits is that the contract holder's beneficiary or estate is guaranteed to receive payouts amounting to at least the guaranteed amount, excluding sales commissions and certain other fees. The amount of the death benefit is equal to the difference, if any, between the guaranteed amount and the net asset value of the fund at death.

Table 22.1 illustrates the death benefits when the market value of the units held in the segregated fund is below, the same as, and higher than the original purchase price. To simplify the illustration, assume that the fund has been held long enough that any deferred sales charges are no longer applicable.

Table 22.1 | Death Benefits

Guaranteed Amount	Market Value at Death	Death Benefit	Total Amount Paid to Beneficiary
$10,000	$8,000	$2,000	$10,000
$10,000	$9,000	$1,000	$10,000
$10,000	$10,000	None	$10,000
$10,000	$11,000	None	$11,000

EXAMPLE

Keith purchases a segregated fund contract for $100,000. His wife, Patricia, is the beneficiary of the contract. The contract provides for a 75% guarantee at death; therefore, the death benefit guarantee is $75,000.

Keith dies during the fifth year of the contract. At the time of his death, the market value of the segregated fund is $80,000. Patricia receives that amount because it is greater than the death benefit guarantee of $75,000.

In a different example, Ayida also purchases a segregated fund contract for $100,000, with terms identical to Keith's contract. She names her son, Antoine, as the beneficiary.

Like Keith, Ayida dies during the fifth year of the contract. However, at the time of Ayida's death, the market value of the segregated fund is $65,000, which is less than the guaranteed amount ($75,000). Antoine therefore receives the guaranteed amount of $75,000, which represents the market value of $65,000 plus the death benefit of $10,000 (the difference between the guaranteed amount and the market value).

CREDITOR PROTECTION

Segregated funds are unique among managed products by offering protection from creditors in the event of bankruptcy. Creditor protection is available because a segregated fund's assets are owned by the insurance company, rather than the contract holder. Insurance proceeds generally fall outside the provisions of bankruptcy legislation.

Creditor protection can be a valuable feature for clients whose personal or business circumstances make them vulnerable to court-ordered seizure of assets to recover debt. Clients who might benefit from this feature include business owners, entrepreneurs, professionals, and other clients who have concerns about their personal liability.

However, creditor protection does not apply under all circumstances (see the Bankruptcy and Family Law section below). For the assets held in the contract to be eligible for protection, the purchase must be made in good faith. In other words, it must not be made with the intention of avoiding potential creditor action. Additionally, the contract holder must name a beneficiary.

BYPASSING PROBATE

One of the key estate-planning advantages of segregated funds is the opportunity to avoid **probate** (the legal process of administering the estate of a deceased person).

Segregated fund contracts are not regarded as part of the deceased's estate; the proceeds of the funds pass directly into the hands of the beneficiaries. The beneficiary need not wait for probate to be completed, nor can payment be delayed by a dispute over the settlement of the estate. Moreover, by passing assets directly to beneficiaries through a segregated fund, contract holders can ensure that their beneficiaries save on fees paid to executors, lawyers, and accountants.

COST OF THE GUARANTEES

In addition to the costs incurred by mutual funds, such as sales fees, switching fees, trailer fees, and management expense ratios, segregated funds have added costs related to death benefits and maturity guarantees. Assessing the true value of the insurance in segregated funds is not easy. Certainly, the management expense ratios for segregated funds are higher than those of comparable mutual funds.

BANKRUPTCY AND FAMILY LAW

Under federal bankruptcy law, segregated funds are not normally included in the property divided among creditors. For example, a bankruptcy trustee cannot change a beneficiary designation to make the proceeds of the contract payable to the contract holder's creditors.

However, under the federal *Bankruptcy and Insolvency Act*, the proceeds of a segregated fund may be subject to seizure under certain conditions. If it can be proven that the purchase was made within a certain period before the bankruptcy, normally within one year, the proceeds may not be protected. If the contract holder was

legally insolvent at the time of purchase, the purchase could be challenged as far as five years back.

TAXATION OF SEGREGATED FUNDS

Segregated funds are taxed as if they were trusts. The insurance company itself, which is the legal owner of the assets of the segregated fund, does not pay taxes on income earned by the fund.

ALLOCATION

A segregated fund's net income, whether in the form of dividends, capital gains, or interest, is deemed to be the contract holder's income. In non-registered accounts, this income is taxable in the current year. The amount of income deemed to have been earned by each contract holder is calculated using a procedure known as **allocation**. A percentage of the fund's total income is allocated to each unit, according to the terms of the segregated fund contract.

Most funds allocate income to a contract holder based on two factors: the number of units held and the proportion of the calendar year during which those units are held. For example, a segregated fund contract held for six months of the year would receive half the per-unit allocations accorded to a contract held for the full year.

IMPACT OF ALLOCATIONS ON NET ASSET VALUES

Mutual funds and segregated funds flow income through to unit holders in different ways. Unlike a mutual fund, a segregated fund does not suffer a decline in the net asset value per share (NAVPS) of the fund after an allocation of income. Instead, the fund contract receives additional income, which is allocated to existing units.

In most cases, these allocations are held in the policy, though they may also be redeemed by the contract holder and received as cash. The allocation increases the investor's adjusted cost base and is reported for tax purposes.

One of the advantages of segregated fund contracts over mutual funds is that both capital losses and capital gains can be passed on to the contract holder. The same is not true of mutual funds, where capital losses cannot flow through to unit holders. They must be kept in the fund and used in future years to offset capital gains.

TAX TREATMENT OF GUARANTEES

Payments from a segregated fund contract's maturity guarantees are taxable. If the proceeds of the contract (after commissions) are less than the adjusted cost base, income tax is payable on the guaranteed amount. However, the contract holder can use the difference between the market value of the segregated fund and the adjusted cost base as a capital loss. The net tax effect is zero. If the proceeds exceed the adjusted cost base, the contract holder is taxed on the capital gain.

TAX TREATMENT OF DEATH BENEFITS

When the annuitant dies, the contract is terminated. The beneficiaries receive the market value of the segregated fund plus death benefits, if any, tax free.

If the contract holder is not the same person as the annuitant, the contract remains in force when the contract holder dies. However, the deceased owner is deemed to have disposed of the contract at fair market value. This deemed disposition normally triggers a capital gain or loss. If the contract holder took advantage of the provision allowing his or her spouse to be named as the successor owner, the contract can be transferred to the spouse. It is transferred at its adjusted cost base, thereby deferring any capital gains liability. If no successor owner has been named, the contract will pass to the deceased owner's estate.

If the contract owner and annuitant are the same person, the gain or loss will be reflected on the owner's terminal tax return for the year of death.

SEGREGATED FUNDS COMPARED TO MUTUAL FUNDS

Table 22.2 highlights some of the key similarities and differences between segregated funds and mutual funds.

Table 22.2 | Comparing Segregated Funds to Mutual Funds

	Segregated Funds	Mutual Funds
Legal status	Insurance contract	Security
Owner of the fund's assets	The insurance company	The fund itself, which is a separate legal entity
Nature of fund units	No legal status; serving only to determine the value of benefits payable	Legal property; carrying voting rights and rights to receive distributions
Regulator	Provincial insurance regulators	Provincial securities regulators
Issuers	Mainly insurance companies	Mutual fund companies
Main disclosure document for investor	Information folder	Fund Facts document (simplified prospectus available upon request)

Frequency of valuation	Usually daily, and at least monthly	Usually daily, and at least weekly
Redemption rights	Redeemed upon request	Redeemed upon request
Required financial statements	Audited annual financial statement	Audited annual financial statement and semi-annual statement, for which no audit is required
Sellers' qualifications	Licensed life insurance agents; successful completion of a recognized investment course, such as those offered by the Canadian Securities Institute, the Investment Funds Institute of Canada, or Advocis also required by British Columbia, Saskatchewan, and Prince Edward Island	Licensed mutual fund representatives or registered brokers
Maturity guarantees	Minimum of 75% of deposits after 10 years; companies may offer guarantees up to 100%	None
Government guarantees	None	None
Protection against issuer insolvency	Assuris, a not-for-profit organization, providing limited protection to Canadian life insurance policy holders;	The Mutual Fund Dealer Association Investor

	maximum compensation up to $60,000 or 85% of the promised guaranteed amounts, whichever is higher; protection only needed if the guaranteed amount is higher than the market value of the investment	Protection Corporation, a not-for-profit corporation, providing limited protection to eligible customers of its members
Death benefits	Yes; may be subject to age or other restrictions	None
Creditor protection	Yes; under certain circumstances	None
Probate bypass	Yes; proceeds of contract held by deceased contract holder may be passed directly to beneficiaries, avoiding probate process	None

SEGREGATED FUNDS SCENARIOS *AND* TRUE AND FALSE

Test your understanding of segregated funds features. *Complete the online learning activity to assess your knowledge*.

LABOUR-SPONSORED VENTURE CAPITAL CORPORATIONS

2 | Discuss the advantages and disadvantages of Labour-Sponsored Venture Capital Corporations.

Labour-sponsored venture capital corporations (LSVCC), also called labour-sponsored investment funds, are managed investment funds sponsored by labour organizations to provide capital for small to medium-sized and emerging companies. LSVCCs vary greatly in terms of size, risks, and management style.

ADVANTAGES OF LABOUR-SPONSORED FUNDS

The main attractions of LSVCCs are the federal tax credits that investors receive and the provincial tax credits that some provinces offer. Tax credits included a 15% federal credit on an annual investment up to a maximum amount, as well as an additional 15% provincial tax credit in some provinces (17.5% in Saskatchewan). Therefore, depending on the type of fund and place of residence, LSVCCs generate a tax credit ranging from 15% to 32.5%. In some provinces, only the federal credit of 15% is available.

DID YOU KNOW?

The federal LSVCC tax credit was to be phased out by 2017. However, the 2016 federal budget reinstated the federal tax credit and it currently remains at 15%.

EXAMPLE

Pierre invests $5,000 in an LSVCC in Quebec, his province of residence. The fund is eligible for a federal tax credit of 15% and a provincial tax credit of 15%. Pierre therefore receives a $750 federal tax credit (15% × $5,000) and a $750 provincial tax credit (15% × $5,000), for a combined tax credit of $1,500.

Though there is no maximum amount an investor may invest in an LSVCC, both the provincial and the federal tax credits are subject to annual maximum limits. The federal tax credit is available on a

maximum of $5,000 invested in any one year. Some provinces have a lifetime limit on the amount eligible for a tax credit.

The unused portion of the federal tax credits is not refundable and cannot be carried forward or back for application in subsequent or prior taxation years. An investor purchasing an LSVCC in the first 60 days of the calendar year can apply the tax credits either to the previous year's taxes or to those of the current year.

Most LSVCC shares are eligible for RRSPs and RRIFs (see Chapter 24 for more on tax deferral plans). In fact, buying an LSVCC investment within an RRSP, as most investors do, offers further tax savings. Shares can be purchased directly by an RRSP trust, or they may be purchased and then transferred to an RRSP or RRIF.

When LSVCC shares are purchased with money contributed to an RRSP, the contributor to the RRSP receives the RRSP tax deduction, as well as any available LSVCC tax credits. In the case of a direct purchase, a deduction of a sum equal to the purchase price is permitted. With a transfer, a sum equal to the fair market value of the shares at the time of transfer is permitted. Both transactions must be within the limits prescribed for contributions to an RRSP.

EXAMPLE

Pierre invests $5,000 in an LSVCC for his RRSP in Quebec. Assuming a 50% marginal tax rate, Pierre realizes tax savings of $2,500 (calculated as $5,000 × 50%) in addition to the $1,500 in LSVCC tax credits received on the purchase of the fund. Therefore, the effective after-tax cost of his investment is reduced to $1,000 (calculated as $5,000 – [$2,500 + $1,500]).

LSVCC shares are also eligible investments for other registered accounts, including tax-free savings account.

DISADVANTAGES OF LABOUR-SPONSORED FUNDS

Because of the nature of the companies in which they invest, LSVCCs are considered a high-risk, speculative investment suitable only for investors who have a high risk tolerance.

DID YOU KNOW?

It is estimated that 80% of all new companies dissolve within five years of start-up.

Another disadvantage is that the redemption of LSVCC shares is more complicated than that of conventional mutual fund shares. Rules governing LSVCC redemptions differ from province to province, as well as between provinces and the federal government. The *Income Tax Act* requires that the shares be held for eight years to avoid the recapture of federal tax credits. If redeemed before this minimum holding time, the investor must repay the tax credits received on the LSVCC when the fund was originally purchased.

EXAMPLE

If Pierre decides to redeem his LSVCC shares after holding the investment for only five years, he will have to repay the $750 federal tax credit and the $750 provincial credit he received.

Some provinces allow investors to redeem the shares immediately after purchase; others place restrictions until a mandatory holding period has elapsed; and some others ban redemptions altogether.

Another disadvantage of LSVCCs is higher costs. Because venture capital investing is more labour intensive than investing in liquid stocks, the costs of administering these funds tends to be much higher than for conventional equity funds. The extra cost is reflected in the MER. These funds must also maintain a large cash reserve to finance redemptions, which can drag down fund performance in rising markets.

CLOSED-END FUNDS

3 | Describe the features and structure of closed-end funds.

Closed-end funds are pooled investment funds that initially raise capital by selling a limited or fixed number of shares to investors.

The manager of the fund uses the fixed pool of capital to purchase and manage a basket of securities according to a specific investment mandate, for which the manager is paid a management fee. In general, the management fee charged by a closed-end fund is lower than the management fee of a mutual fund with a similar investment objective.

STRUCTURE OF CLOSED-END FUNDS

Once issued, closed-end fund units are listed for trading on a stock exchange. Investors who wish to buy or sell units of the fund must do so through the stock exchange. They pay a commission on the transaction, rather than a front-end or back-end load.

The prices of closed-end funds are based on market supply and demand, as well as underlying asset value. Closed-end funds can trade at a discount, at par, or at a premium relative to the combined net asset value of their underlying holdings. Historically, most closed-end funds trade at a discount to their NAVPS.

An increase or decrease in the discount can indicate market sentiment. The greater the relative discount, all other things being equal, the more attractively priced the fund. However, it is important to find out whether the discount at which a fund is trading is below historical norms. A widening discount could indicate underlying problems in the fund, such as disappointing results from an investment strategy, a change in managers, poor performance by the existing managers, increased management fees or expenses, or extraordinary costs such as a lawsuit.

The underlying assets in a closed-end fund may include the following examples, among others:

- Preferred shares of Canadian financial institutions
- Diversified holdings of a basket of foreign-based manufacturing companies
- A portfolio of income-producing securities, including business trusts, **real estate investment trusts** (REIT), and utility income trusts

Funds that have the flexibility to buy back their outstanding shares periodically are known as **interval funds** or **closed-end discretionary funds**. They are more popular in the United States. In Canada, closed-end funds may also be structured with buyback or termination provisions. For example, a fund could be structured to terminate on June 30, 2025, at which time the proceeds will be distributed to unitholders. However, the fund manager could propose to continue the fund after this date, subject to unitholder approval.

CLOSED-END FUNDS AS AN ALTERNATIVE INVESTMENT STRATEGY

Historically, after hedge funds, closed-end funds have been the next most-popular investment product structure utilized by investors seeking exposure to alternative investment strategies.

The closed-end fund product structure is ideally suited to alternative investment strategies since the alternative investment manager does not have to concern herself with managing fund liquidity over the life of the fund (at least as it pertains to investor redemption requests). Accordingly, this type of product structure is well-suited for illiquid alternative investment strategies, such as equity real estate and private equity.

Of course, closed-end funds that incorporate an alternative investment strategy have to pay particular attention to the possibility

that the fund will trade at discounts and premiums to the fund's NAV over time.

The 2018 mutual fund modernization amendments to NI 81-102 made closed-end funds subject to generally the same investment restrictions as alternative mutual funds, including with respect to leverage, short selling, use of derivatives and portfolio concentration. An exception is that, given their structure as described above, they will be afforded a higher limit on illiquid assets relative to alternative funds. This limit will be set at 20% of NAV for closed-end funds (rather than 10% for alternative mutual funds), with a hard-cap of 25% of NAV (rather than 15% for alternative mutual funds) for up to a maximum of 90 days.

With the investment strategies of closed-end funds now capable of being delivered through an alternative mutual fund it will be interesting to see how the closed-end market pertaining to the use of alternative strategies develops going forward.

It should be noted that existing closed-end funds are grandfathered from these changes provided they do not make another public offering.

ADVANTAGES OF CLOSED-END FUNDS

Closed-end funds have the following advantages for investors:

- Diversification can reduce the risks associated with the varying discounts of closed-end funds. A portfolio of closed-end funds that have a low degree of correlation with each other will smooth out the adverse effects of closed-end discounts.
- Closed-end funds offer certain opportunities for investment returns, such as short selling, that are not available to investors in open-end investment funds. Typically, a closed-end fund is more fully invested than an open-end fund. Open-end funds must keep a certain percentage of their funds liquid to allow for redemptions. Closed-end funds do not have this constraint.

- In working with a closed-end structure, money managers have the flexibility to concentrate on long-term investment strategies without having to reserve liquid assets to cover redemptions.
- Because the number of units of a closed-end fund is generally fixed, capital gains, dividends, and interest distributions are paid directly to investors, rather than reinvested in additional units. Therefore, tracking the adjusted cost base of these funds may be easier than for open-end mutual funds. Also, because there is only a fixed number of units to be administered, investors in closed-end funds may benefit from lower MERs than open-end funds with similar objectives.

DISADVANTAGES OF CLOSED-END FUNDS

Closed-end funds have disadvantages as well, particularly in comparison to open-end funds:

- Like stocks, and unlike open-end funds, closed-end funds do not necessarily trade at NAVPS. In bear markets, as the value of the underlying assets declines, the gap between the discount and the net asset value widens. In such markets, therefore, closed-end unitholders or shareholders may suffer. Also, because closed-end funds are not widely used in Canada, they may trade for extended periods at prices that do not reflect their intrinsic or true value.
- Partly because of the divergence of trading prices from net asset value, closed-end funds are less liquid than open-end funds. Buyers and sellers must be found in the open market. The fund itself does not usually issue or redeem units. Commissions are paid at the time of purchase and at the time of sale.
- Unlike the deferred sales charge option available on many open-end funds, closed-end funds have no schedule of declining redemption fees. In fact, if closed-end shares appreciate, the commission payable on sale could be higher than it was at the

time of purchase, because it would be based on the share's ending value.

- Because many closed-end funds do not provide for automatic reinvestment of distributions (a feature of most open-end funds), unitholders are responsible for reinvesting cash that may build up in their accounts.
- For closed-end funds that trade on foreign exchanges, any dividend income earned is considered foreign income and is therefore not eligible for the federal dividend tax credit.

INCOME TRUSTS

4 | Differentiate among the types of income trusts.

An **income trust** is similar in some ways to a closed-end fund. Investors purchase ownership interests in the trust, which in turn holds interests in the operating assets of a company. These securities are exchange-traded and trade on the Toronto Stock Exchange.

Generally, income trusts are divided into the following two major categories:

- REITs purchase real estate properties and pass the rental incomes through to investors. They are usually specialized in one real estate sector, such as shopping centres, senior housings, office or industrial rentals, and residential rentals.
- **Business trusts** purchase the assets of an underlying company, usually in the manufacturing, retail, or service industry. The companies may operate in such diverse areas as peat moss extraction, restaurants, industrial appliances, canning, and distribution.

DID YOU KNOW?

Different types of business may operate within the same income trust category; therefore, they cannot be compared for evaluation. For example, one REIT may be invested in shopping centres, whereas another may own senior housing—both are REITs, but a comparison between the two is not useful. When evaluating an income trust, you must compare it against other income trusts that operate in a relatively similar market niche.

Income trusts are similar to fixed-income securities in the way they react to changing interest rates; however, like equities, they trade on an exchange.

Because they are backed by the specific revenue-generating properties or assets held in the trust, they face the same risks as common equities. The underlying business is affected by market conditions and economic cycles, as well as management performance.

Depending on their structure, the priority and security of trusts typically rank below those of subordinated debentures.

REAL ESTATE INVESTMENT TRUSTS

REITs consolidate the capital of a large number of investors to invest in and manage a diversified real estate portfolio. Investors participate by buying units in the trust. Small investors are thus able to invest in commercial real estate that was previously available only to corporate or more affluent and sophisticated investors.

REITs generally pay out a high percentage of their income—typically 95%—to their unitholders.

They are publicly traded companies that may be structured as either open-end or closed-end funds. If they meet the stringent standards set out under the *Income Tax Act*, REITs may qualify as registered investments for RRSPs and RRIFs.

REITs face many of the risks that are typical to real estate investments, as follows:

- Quality of the properties
- State of the rental markets and tenant leases
- Costs of debt financing
- Natural disasters and access to liquidity

REIT managers generally minimize risk by avoiding real estate development, investing instead primarily in established income-producing properties.

Liquidity is a major benefit of REIT ownership. REIT units are much more liquid than real estate. However, investors should determine the liquidity of any particular REIT before investing. Some REITs, especially the more specialized ones, have thin trading volumes, despite being exchange traded. As publicly traded instruments, REITs are also subject to full disclosure rules, which allow investors to base their decisions on more complete information.

When interest rates rise, higher borrowing costs make the purchase of new properties less profitable, and REIT trading values may therefore fall. On the other hand, REITs represent a good hedge against inflation. In an inflationary environment, the value of the underlying real estate owned by REITs may appreciate.

Because rental income is fairly stable, REITs generally yield high levels of income, but they usually lack the potential for the large capital gains or losses that are possible with equities. As with any investment, it may be necessary to accept lower yields to ensure a high-quality portfolio underlying the yield.

Buying REITs gives investors access to professional management. REITs, however, are just as susceptible to ineptitude on the part of management as any other company. The key to minimizing risk lies in sound research before purchase and in diversification.

BUSINESS TRUSTS

Business trusts are as varied as the types of companies listed on a stock exchange. This category includes many examples of companies with strong, stable earnings, but little growth potential. Management uses the income trust structure to make investment in such companies more attractive than it would be if the companies traded as common share initial public offerings.

Income trusts work best in markets where new competitors are unlikely to spring up. The ideal company is a monopoly, a quasi-monopoly, or a company operating in a protected niche.

The following types of businesses are examples of the diverse holdings of business trusts:

- Forest products
- Storage facilities
- Natural gas processing
- Restaurants and food distributors
- Fish processing and sardine canning
- Aircraft parts, industrial washing machines, and biotechnology

It is difficult to generalize the risks of business trusts because of the diversity of the underlying businesses. They are subject to the same interest rate risk as fixed-income securities and the same risks as equity securities. They tend to be more stable than the equity market because the underlying business assets provide regular, stable income. However, they are still subject to market and economic risk.

INCOME TRUST TAXATION

The tax treatment of income trusts is like that of taxable Canadian corporations. The income trust pays tax, and the distributions from the trust are taxed in the hands of the investor, as are dividends received from a corporation.

However, it is important to note that Canadian REITs have different taxation rules. REITs can avoid paying tax by distributing the income generated by the trust directly to unitholders. The revenue generated by the REIT is therefore taxed in the hands of investors.

LISTED PRIVATE EQUITY

5 | Describe the advantages, disadvantages, and process for investing in private equity.

Private equity is the financing of firms unwilling or unable to find capital using public means, such as through the stock or bond markets, for example. The term *private equity* is a bit of a misnomer—the asset class encompasses investment from private debt, as well as private equity.

Long-term returns on private equity typically exceed most other asset classes. In exchange for those returns, private equity exposes investors to far higher risks.

Private equity plays a specific role in financial markets, both in Canada and worldwide. It complements publicly traded equity by allowing businesses to obtain financing when issuing equity in the public markets is difficult or impossible to do. A good example of private equity is venture capital. Businesses in the start-up phase often produce little or no cash flows and have few or no assets to offer as collateral. They also invest most, or all, of their revenue in more or less unproven technologies or production processes. In such situations, firms must typically turn to venture capital. These investors are ready to take substantially more risk against significantly higher profit prospects, if the venture is successful.

Private equity investors can use various methods to provide finance to firms.

Leveraged A leveraged buyout is the acquisition of companies

buyout	financed with equity and debt. Buyouts are one of the most commonly used forms of private equity. LBO firms represent some of the wealthiest finance organizations anywhere, with the ability to raise funds above $10 billion and conduct multi-billion-dollar deals. LBO funds are structured as limited partnerships, with the general partners (the promoters of the funds) receiving ongoing compensation, and the limited partners receiving returns contingent on investment performance.
Growth capital	Growth capital is the financing of expanding firms for their acquisitions or high growth rates.
Turnaround	Turnaround investments provide financing to underperforming or out-of-favour industries that are either in financial need or undergoing operating restructuring.
Early-stage venture capital	Early-stage venture capital invests in firms that are in the infancy stages of developing products or services in high-growth industries such as health care or technology. These firms usually have a limited number of customers.
Late-stage venture capital	Late-stage financing focuses on firms that are more established but still not profitable enough to be self-sufficient. Revenue growth is still very high.
Distressed debt	Distressed debt is the purchase of debt securities of private or public companies that are trading below par, due to financial trouble at the firm.
Mezzanine financing	A firm may wish to finance by floating high-yielding, unsecured preferred equity or subordinated loans.

This mezzanine capital is typically just above common stocks in seniority. As such, it is a comparatively costly way to finance. From a private equity investor's point of view, the risk of default is about the highest in the debt spectrum, but the investment pays high returns given the increased credit risk.

LISTED PRIVATE EQUITY

A listed private equity company is an investment company that uses its capital to purchase or invest in a wide range of other companies. The shares of a listed private equity company are publicly traded on a stock exchange. Investment holdings could include companies that are publicly traded on a stock exchange or that are privately held. (A privately held company does not trade on a stock exchange.)

EXAMPLE

ABC Corp. is a private equity firm that trades on the Toronto Stock Exchange. The company is highly diversified and conducts business through various autonomous subsidiaries operating in multiple industries. Its holdings are in the real estate, financial, and health care sectors. ABC Corp. is led by a team of 30 partners who manage corporate investments, private equity portfolios, and various other assets.

ABC uses its investment capital to purchase companies that appear to offer the potential for long-term capital gains. The company focuses on a wide range of small to mid-size privately held investment opportunities.

Traditionally, investment in private equity occurred through companies that were not listed on a stock exchange. The companies were privately held and used their own invested capital to purchase and invest in other businesses. Over the past decade, an increasing

number of private equity companies have started listing on stock exchanges. Reasons for this transformation include better access to capital, improved liquidity, and transparency. These listed companies trade like common shares and are subject to the same regulatory and reporting requirements as other publicly traded companies. The allure for the investor is the opportunity to invest in a diversified company whose investment holdings would not typically be available for investment by the average retail investor.

DID YOU KNOW?

For investors, purchasing shares in a listed private equity company is straightforward. You can buy and sell the shares in the same way you would purchase the shares of any other publicly traded company.

ADVANTAGES AND DISADVANTAGES OF LISTED PRIVATE EQUITY

As with any type of investment, there are advantages and disadvantages to investing in a listed private equity company. Two key advantages are described below.

Access to legitimate inside information	Because private equity managers often buy majority ownership in a company, they have access to a much greater depth of information on possible investments. This information helps them more accurately assess the likely success of a company's business plan. It also helps investors follow a proper post-investment strategy. The greater level of disclosure significantly reduces uncertainty and risk in private equity investment. Equivalent information

	in the public markets would be considered inside information.
Influence over management and flexibility of implementation	To improve the odds of realizing superior returns on their investments, private equity managers generally seek active participation in a company's strategic direction. Such participation could include development of a business plan, selection of senior executives, and identification of eventual acquirers of the firm. Because they are owners, private equity managers can also implement their business plan without answering to other shareholders or regulators.

Two key disadvantages of private equity investment are described below.

Illiquid investments	Lack of liquidity is one of the key disadvantages that private equity investors face. For example, when a venture capital firm purchases shares in a private company, the holding period averages three to seven years. Venture capital fund investors are locked into their investment during this period. It is possible to sell partnership shares to a third party, but at a significantly discounted price.
Dependence on key personnel	Private equity funds usually depend on the general partners and a relatively small staff for all key investment decisions. Also, private equity managers often take an active role in the management of companies in which they invest, including participation on the company's board of directors. Therefore, the inability of one or more key people to carry out their duties could have significant adverse

effects on a partnership, and thus on the return on investment.

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, you learned about the following key features of several additional managed products:

- Segregated funds are like mutual funds because they are a type of pooled investment. However, unlike mutual funds, they are also a type of insurance contract. Accordingly, they have features such as maturity protection, death benefits, and creditor protection. Rather than receiving shares, investors are assigned notional units that measure their level of participation and benefits. Because they are insurance products, they are regulated by the provincial insurance regulators, and they are generally protected from creditors in a bankruptcy. Segregated funds are taxed as if they were trusts.
- LSVCCs are managed investment funds sponsored by labour organizations to provide capital for small to medium-sized and emerging companies. The main attractions of LSVCCs are the federal tax credits that investors receive and the provincial tax credits that some provinces offer. They are considered a high-risk, speculative investment suitable only for investors who have a high risk tolerance.
- Closed-end funds are pooled investment funds that initially raise capital by selling a fixed number of shares that are listed for

trading on a stock exchange. Closed-end funds offer certain opportunities for investment returns, such as short selling, that are not available to investors in open-end investment funds. Capital gains, dividends, and interest distributions are paid directly to investors, rather than reinvested in additional units.

- An income trust is similar in some ways to a closed-end fund. Investors purchase ownership interests in the trust, which in turn holds interests in the operating assets of a company. These securities are traded on an exchange. The two broad categories of income trusts are REITs and business trusts. The tax treatment of income trusts is like that of taxable Canadian corporations.
- Private equity is the financing of firms unwilling or unable to find capital through the stock or bond markets. A listed private equity company is an investment company that uses its capital to purchase or invest in a wide range of other companies. The shares of a listed private equity company are publicly traded on a stock exchange. Private equity investment has two key advantages: access to legitimate inside information and influence over management. Lack of liquidity is one of the key disadvantages faced by private equity investors.

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 22 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 22 FAQs.

Structured Products 23

CHAPTER OVERVIEW

In this chapter, you will learn about the features of structured products in general, including their benefits and risks. You will also learn how different products are structured, and what risks and tax implications are associated with the different types.

LEARNING OBJECTIVES		CONTENT AREAS
	1 | Summarize the advantages, disadvantages, and risks of investing in structured products.	**Overview of Structured Products**
	2 | Describe the features, risks, benefits, and tax implications of principal-protected notes.	**Principal-Protected Notes**
	3 | Describe the structure, risks, and the tax implications of market-linked guaranteed investment certificates.	**Market-Linked Guaranteed Investment Certificates**
	4 | Describe the structure, risks, and the tax implications of split shares.	**Split Shares**
	5 | Describe the securitization process	**Asset-Backed**

	for asset-backed securities.	**Securities**
6 |	Describe asset-backed commercial paper and mortgage-backed securities.	

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

asset-backed commercial paper

asset-backed securities

capital shares

market-linked guaranteed investment certificates

mortgage-backed security

mortgage pass-through securities

prepayment risk

principal-protected notes

roll-over risk

special purpose vehicles

split shares

structured product

tranches

zero-coupon bond plus option structure

INTRODUCTION

Structured products provide investors with risk, return, tax, and diversification characteristics not available from conventional investments. The pricing of these products can reference a single security, a basket of securities, an index, commodities, or a combination of assets. They can be designed to provide enhanced yield, capital protection, and tax efficiency—alone or in combination.

Structured products were created as an alternative financing method with better terms than those of more conventional products used to raise business capital. These products are not currently subject to National Instrument 81-102, the regulation that governs many aspects of mutual funds. Unlike mutual funds, therefore, they can improve returns by using strategies such as leverage or derivatives.

The first structured products were designed to provide returns referenced to well-known securities, indexes, or investments (e.g., S&P 500 Equity Index or the price of gold bullion). These reference securities are called *underlying assets*. Over time, the underlying assets of structured products have become more varied to attract more capital. As investor interest in the advantages of structured products has grown, so has their availability. Their ability to meet the unique needs of a more and more sophisticated investor market has undoubtedly been one of the factors that has contributed to the success of the structured product market.

OVERVIEW OF STRUCTURED PRODUCTS

1 | Summarize the advantages, disadvantages, and risks of

investing in structured products.

A **structured product** is a passive investment vehicle that is financially engineered to provide a specific risk and return characteristic. The value of a structured product tracks the returns of the underlying asset. The underlying assets can consist of a single security, a basket of securities, foreign currencies, commodities, or an index.

EXAMPLE

Examples of underlying assets of structured products

- Mortgage loans
- Credit card receivables
- Car loans
- Equity indexes
- Home equity loans

Structured products are designed to have less risk than their underlying assets, while providing higher risk-adjusted returns than conventional investments. Investors in these products buy a share of the total pool of underlying assets.

Issuers of structured products include established financial institutions, such as banks or consumer finance firms. The issuer takes advantage of economies of scale and market reach to create a package of underlying assets that most people could not afford to assemble on their own.

For example, an individual investor would not have access to a pool of mortgage loans with which to create a **mortgage-backed security** (MBS). Individuals also lack the expertise to evaluate the loans and the ability to assemble them. Banks that issue mortgages, on the other hand, have the expertise and resources to assemble a pool of loans into an MBS.

TYPES OF STRUCTURED PRODUCTS

Structured products are available in different types and formats, including **principal-protected notes** (PPN), **market-linked guaranteed investment certificates** (GIC), **split shares**, MBSs, and **asset-backed securities** (ABS). Each of these products has specific characteristics. Table 23.1 describes the investment objectives and underlying assets of the various types of structured products.

Table 23.1 | Types of Structured Products

Product	Description	Assets Held
Principal-protected notes	Bank-issued debt security with returns linked to an equity index, mutual fund, exchange-traded fund (ETF), or basket of stocks	Derivatives, fixed income
Market-linked GICs	Bank-issued debt security with returns linked to an equity index, mutual fund, ETF, or basket of stocks	Derivatives, fixed income
Split shares	Equity securities with separate claims on the dividend and capital cash flow from a holding of underlying stocks	Dividend-paying stocks
Mortgage-backed securities	Medium- to long-term bond with equal claim on the principal and interest cash flows from a pool of mortgages	Residential or commercial mortgages
Asset-backed securities	Short- to medium-term bond with equal claim on the principal and	Consumer loans (home equity,

	interest cash flows from a pool of receivables	student, auto, and credit card)

ADVANTAGES OF STRUCTURED PRODUCTS

Structured products have the advantages of professional management, economies of scale, and diversification. They combine high-risk, illiquid securities into one lower risk security that offers higher yields at a given term-to-maturity, compared to a conventional fixed-income instrument.

Another advantage is that it is highly likely (although not certain) that the entire principal of a structured product will be returned at the end of the investment period.

DISADVANTAGES OF STRUCTURED PRODUCTS

One disadvantage of structured products is that, because of their complexity, many investors find it difficult to assess their inherent risks. Structured products that make significant use of derivatives are particularly complex.

Also, because structured products have a very thin secondary market, or none at all, illiquidity can be a problem. Some PPN issuers provide a secondary market, but only on a best-efforts basis. In very active or volatile markets, the issuer will either make a market with a very wide bid/ask spread or step aside completely and not support a secondary market.

A final disadvantage is that these products often have a large built-in cost structure to compensate for the return guarantee. Investors are often subject to selling commissions, management fees, performance fees, structuring fees, trailer fees, and swap arrangement fees, to name a few. They must therefore overcome a significant cost hurdle before they make a reasonable return.

RISKS INVOLVED WITH STRUCTURED PRODUCTS

As with all types of investments, investors in structured products are exposed to general investment risks that include default risk, inflation and interest rate risk, currency risk, and manager risk.

Structured products carry an additional risk called **prepayment risk**. If allowed, based on the structure of the investment, some of the mortgages underlying MBS securities might be paid off earlier than expected. Prepayment shortens the life of the MBS and could potentially leave the investor with a lower return over the life of the structured product.

PRINCIPAL-PROTECTED NOTES

2 | Describe the features, risks, benefits, and tax implications of principal-protected notes.

In Canada, a PPN is a debt instrument issued by a bank in the form of a deposit note. Like most debt instruments, a PPN has a maturity date on which the issuer promises to return the principal amount (or *face value*) of the investment. And, like most debt instruments, it also delivers a return in the form of interest. Unlike other debt instruments, however, the interest rate of a PPN is tied to the performance of an underlying asset. The asset might be a portfolio of stocks, an index, or one or more mutual funds or ETFs. Therefore, PPN issuers guarantee only the return of principal at maturity; the interest payment is not guaranteed. Any such payment depends on the performance of the underlying asset.

Regulation of PPNs in Canada reflect their structure as bank deposit notes; therefore, they are not considered securities and are not issued under a prospectus. Issuers instead produce information statements that describe the key features and risks of the PPN.

DID YOU KNOW?

PPNs are subject to regulations under the *Bank Act*. Although they are issued by banks, they are not insured by the Canada Deposit Insurance Corporation (CDIC).

The term to maturity of a PPN varies according to the issue; typically, it ranges from three to eight years. However, notes with shorter or longer terms are also occasionally issued.

THE ROLE OF PRINCIPAL-PROTECTED NOTE ISSUERS

In Canada, PPNs are issued only by the six major banks (the Big Six). The banks function in three main roles: guarantor, manufacturer, and distributor, as described below.

Guarantor	As the issuers of PPNs, the banks guarantee the return of principal at maturity. The value of the guarantee is based wholly on the perceived creditworthiness of the issuer. In the event of default, PPN investors rank equally with all other investors in the bank's deposit notes.
Manufacturer	As manufacturers, they choose the underlying asset, the term to maturity, and any special features tied to interest payments. This role is almost always performed by a group that specializes in equity derivatives, which is typically part of the bank's Capital Markets division.
Distributor	Banks distribute PPNs primarily through their investment dealer arm, although some banks use a third-party investment dealer or mutual fund dealer.

THE STRUCTURE OF PRINCIPAL-PROTECTED NOTES

A PPN is structured to guarantee the investor's principal and provide for the payment of any interest related to the return on the underlying asset. Theoretically, the issuer puts the sales proceeds into the structure and then manages it to provide the principal and potential interest at maturity.

In Canada today, PPN issuers use a structure known as the **zero-coupon bond plus option structure**. In this structure, the issuer invests most of the proceeds in a zero-coupon bond that has the same maturity as the PPN. The zero-coupon bond guarantees the return of principal at maturity. The remainder of the proceeds is invested in an option on the underlying asset. The option portion of the PPN provides the potential return that funds the payment of interest to investors in the PPN. Using this fairly simple structure, issuers are able to create a large and diverse number of PPNs with different payoffs based on the underlying asset. Two of the most popular types of PPNs issued in Canada are index-linked PPNs, and stock basket-linked PPNs.

INDEX-LINKED PRINCIPAL-PROTECTED NOTES

With index-linked PPNs, the issuer offers limited exposure to an underlying index such as the S&P/TSX 60 Index. Exposure is limited by one of two means:

- A participation rate
- A performance cap

INDEX-LINKED PRINCIPAL-PROTECTED NOTES WITH A PARTICIPATION RATE

When the issuer uses a participation rate, the final payoff is limited to a percentage of the return on the index.

EXAMPLE

Your client Jomal invests $5,000 in a five-year PPN linked to the S&P/TSX 60 Index. The PPN has a participation rate of 75%.

On the issue date of the PPN, the S&P/TSX 60 Index is 750. Five years later, on the maturity date, the index rises to 1,000. Jomal earns a return of 25% on his investment, calculated as follows:

Index Return = [(1,000 ÷ 750) – 1] = 0.33 or 33%

Jomal's Return = 33% x 0.75 participation rate = 0.25 or 25%

Therefore, Jomal receives $6,250 on the PPN's maturity date, calculated as 5,000 x (1 + 0.25) = 6,250

If the S&P/TSX 60 Index had declined to 500 after the five-year period, Jomal would have earned no return; your client would simply be paid his initial principal.

INDEX-LINKED PRINCIPAL-PROTECTED NOTES WITH A PERFORMANCE CAP

When the issuer uses a performance cap, the final payoff equals 100% of the return on the index but is limited to a predetermined maximum amount. When that limit is reached you do not participate in further growth.

EXAMPLE

Your client Jolanda invests $5,000 in a five-year PPN linked to the S&P/TSX 60 Index. The PPN has a performance cap of 30%.

On the issue date of the PPN, the S&P/TSX 60 Index is 750. Five years later, on the maturity date, the index rises to 1,000. The growth of the index is 33%, calculated as [(1,000 ÷ 750) – 1] = 0.33 or 33%. Jolanda's return, however, is capped at a maximum of 30%. Therefore, Jolanda receives $6,500 upon maturity, calculated as 5,000 x (1 + 0.30) = 6,500.

If the index had risen instead by only 20%, Jolanda would have also earned a return of 20%, because she would not have reached her performance cap. If the return had been negative, your client would have simply got her principal back.

Note: In almost all cases, the return on index-linked PPNs is based on the performance of the price-return version of the index. It does not account for the dividends or distributions paid on its constituents. In effect, investors in an index-linked PPN give up an important source of return that they could potentially earn from direct investment in the underlying index.

STOCK BASKET-LINKED PRINCIPAL-PROTECTED NOTES

Stock basket-linked PPNs are linked to the average return on a basket of common shares. Typically, the basket contains 10 or 15 different common shares, but it may have more or less than these amounts.

With this type of PPN, the return paid to investors is equal to the average return on the individual common shares in the basket. In most cases, the average return on each common share is capped at a pre-set amount, which has the effect of putting a cap on the overall return on the PPN. In some cases, a participation rate is applied to the average return. Finally, some PPN issuers pay a guaranteed minimum return, albeit relatively small, at maturity. Therefore, even if the average return is 0% or less, investors receive something more than just their principal back.

EXAMPLE

Your client Simon invests $5,000 in a six-year PPN linked to the average return on a basket of 10 common shares. A maximum return of 50% is attributable to any one common share. The PPN has no minimum guaranteed return above the principal amount.

The starting and ending share price of each common share is shown in Table 23.2, along with the actual return and effective return.

Table 23.2 | Prices and Returns of a Six-Year Principal-Protected Note

Common Share	Starting Price	Ending Price	Actual Return	Effective Return
1	$20	$25	25%	25%
2	$10	$8	–20%	–20%
3	$50	$55	10%	10%
4	$35	$35	0%	0%
5	$40	$36	–10%	–10%
6	$75	$150	100%	50%
7	$60	$72	20%	20%
8	$30	$21	–30%	–30%
9	$40	$60	50%	50%
10	$100	$125	25%	25%

Note: The effective return for the holder of the PPN is capped at a maximum of 50%. Therefore, the actual return on Common Share #6 was 100% over the six-year period, whereas the effective return was only 50%.

The overall return on Simon's PPN is equal to the average of the effective returns, which is calculated as follows:

> Effective Return Average = (25% – 20% + 10% + 0% – 10% + 50% + 20% – 30% + 50% + 25%) ÷ 10 = 12%

Therefore, Simon receives $5,600 on the maturity date, calculated as 5,000 x (1 + 0.12) = 5,600.

However, if the average effective return on the common shares was equal to or less than 0%, Simon would have earned no return; he would simply be paid his initial principal.

Note: As mentioned earlier, this type of PPN almost always excludes the payment of any dividends or distributions from the calculation of the return on the common shares.

FEATURES AND PERFORMANCE FACTORS OF PRINCIPAL-PROTECTED NOTES

What are the features of PPNs and how are PPN returns calculated with performance caps and participation rates? *Complete the online learning activity to assess your knowledge*.

RISKS ASSOCIATED WITH PRINCIPAL-PROTECTED NOTES

PPNs are often perceived as risk-free investments because the principal is guaranteed at maturity. However, although their risk is potentially lower than that of equity investments, PPNs do not avoid all risks. The unique set of risks carried by PPNs are outlined below.

Liquidity Risk	Many PPNs offer investors the opportunity to redeem their investment before maturity. This feature gives PPNs a distinct advantage over similar GIC-based products, which must be held until maturity. However, the price at which the issuer offers to buy back a PPN may not be the security's fair value; it may include embedded fees charged for early redemption. No method exists for investors to determine what a PPN's fair value is at any given

	time. Therefore, they have no way of knowing what portion of the price represents fees. Also, although issuers may offer to facilitate a secondary market, they are under no obligation to do so.
Performance Risk	The performance of the PPN may be lower than that of the underlying asset. Among the many factors involved in pricing a PPN is the cost of principal protection. That cost is reflected in the PPN's return; therefore, the return is unlikely to exactly match the returns of the underlying asset.
Credit Risk	Although PPNs are guaranteed by the banks that issue them, they are not insured by CDIC. Most investors are comfortable with today's credit risk of Canada's Big Six banks; however, no bank's credit status is unchangeable. Investors should therefore consider the possibility that the issuer will be unable to return their principal at maturity.
Currency Risk	Some PPNs are structured to track the returns from a foreign currency-denominated underlying asset or assets. Unless specified otherwise in the PPN's offering documents, a PPN based on a foreign asset exposes investors to currency risk.

IMPORTANT FACTORS TO CONSIDER WITH PRINCIPAL-PROTECTED NOTES

PPNs are not appropriate for investors who require either a predictable stream of income or liquidity to fund their lifestyle. The reasons for these two considerations are explained below.

Need for predictable	Although some newer PPNs are designed to provide income, the income stream is usually not guaranteed.

income	In most cases, PPNs that do provide income offer a below- market yield over their term. Also, many PPNs specifically exclude interim income distributions.
Need for liquidity	Liquidity is not guaranteed with PPNs. Although the issuer may offer to facilitate a secondary market, it is under no obligation to do so. Even if it does regularly facilitate a secondary market, the bid price may not accurately reflect the note's economic performance or its value before maturity. An investor should be prepared to hold a PPN until its maturity date.

Market volatility, which has been a factor in recent years, may make the idea of a principal-protected investment more appealing for some of your clients. However, you should help your clients determine whether they really need the protection that PPNs offer. Investors with average or above-average tolerance for risk and a sufficiently long-time horizon should consider other options. They may find that a properly diversified portfolio outperforms a PPN over the long term, while avoiding their inherent risks and keeping volatility at an acceptable level.

TAX TREATMENT OF PRINCIPAL-PROTECTED NOTES

Any return from a PPN held to maturity or generated prior to maturity by way of sale is generally taxed as interest income. For example, suppose your client put $10,000 into a PPN and sold the investment for $11,500 two years prior to maturity. The $1,500 gain would be treated as interest income in the year in which the PPN was sold.

The tax treatment for PPNs is spelled out in the PPN's offering document.

MARKET-LINKED GUARANTEED INVESTMENT CERTIFICATES

3 | Describe the structure, risks, and the tax implications of market-linked guaranteed investment certificates.

GICs are a type of fixed-income security that offers fixed or variable rates of interest for a specific term. The issuing institution guarantees both principal and interest payments, and the investment is insured by the CDIC. Market-linked GICs are a customized product that links returns to the return on an underlying asset such as a stock index, mutual fund, or ETF.

STRUCTURE OF MARKET-LINKED GUARANTEED INVESTMENT CERTIFICATES

GICs linked to an index, mutual fund, or ETF combine the guarantee of the principal with some of the growth potential of an equity investment. Their popularity has grown in light of recent bouts of market volatility and historically low interest rates. These GICs may be especially popular among your clients who are conservative investors and want the guaranteed security of a GIC, but who also want some exposure to the stock market.

Market-linked GICs are typically offered with three- and five-year terms and are usually non-redeemable until maturity. They may be indexed to domestic or global indexes, or to a combination of benchmarks, as well as mutual funds with various mandates and ETFs.

The principal of a market-linked GIC is guaranteed, but the total return on the instrument is not known until maturity. It may be limited either by a maximum cap on returns or by a participation rate, depending on the issuer.

If the underlying index, mutual fund, or ETF falls in value over the term during which the instrument is held, all that is returned to the investor is the original principal invested. Therefore, your clients must weigh the risks that the underlying asset could decline over the period that they hold the investment.

CALCULATING RETURNS ON A MARKET-LINKED GUARANTEED INVESTMENT CERTIFICATE

The calculation of the overall return on a market-linked GIC may vary among issuers and the underlying asset. With an index-linked GIC, for example, the following variables are generally used:

- The initial index level
- The ending index level
- Index growth over the term
- The performance cap or participation rate, if any

EXAMPLE

Your client Manish has a $10,000 investment in a five-year XYZ Market-Linked GIC. Return on the GIC is based on the performance of the S&P/TSX Composite Index, with a 60% participation rate. The overall return on this instrument is shown in Table 23.3.

Table 23.3 | Overall Return on XYZ Market-Linked Guaranteed Investment Certificate

Initial Index Level	Ending Index Level	Index Growth over the Period	Participation Rate	Overall Return
8,600	12,000	39.53%	60%	23.72%

Index Growth = (Ending Index Level – Initial Index Level) ÷ Initial Index Level x 100

Overall Return = Index Growth × Participation Rate

To calculate the total return earned over the term, simply multiply the amount of the principal invested by the overall return. Therefore, Manish earned $2,372, which is calculated as follows:

Total Interest Earned = Principal x Overall Return = 10,000 x 23.72% = 2,372

Different GICs have different underlying benchmarks, which can make it difficult to compare performance. However, some features can, and should, be compared when considering an investment in an index-linked GIC. Along with different underlying benchmarks, the terms of these securities may vary as follows:

- Some GICs base returns on the level of the index on a particular date; others use the average return for a number of periods during the GIC's term.
- Some GICs allow investors to lock in returns as of a given period; others allow early redemptions at specific dates, such as a one-year anniversary.

DID YOU KNOW?

Averaging provisions reduce the effect of a sharp market plunge just before maturity. However, they also reduce the investor's returns in a gradually rising market.

RISK ASSOCIATED WITH MARKET-LINKED GUARANTEED INVESTMENT CERTIFICATES

If your clients invest in market-linked GICs, they must accept the risks associated with an investment that tracks the performance of

the stock market, a mutual fund, or an ETF.

The main risk is that the index or fund will either remain stagnant or fall over the GIC's term. Regardless of what happens to the underlying investment, 100% of the principal will always be returned at the end of the term. However, your clients must be willing to accept the risk that the investment may generate no return.

A secondary risk is that, in most cases, your clients will not be allowed to redeem market-linked GICs prior to the maturity date. They must therefore also be prepared to hold the instrument to maturity.

TAX IMPLICATIONS OF A MARKET-LINKED GUARANTEED INVESTMENT CERTIFICATE

The returns on market-linked GICs, if any, are classified as interest income. If the instrument is purchased outside of a registered retirement savings plan (RRSP), the gains are added to income and taxed at the investor's marginal tax rate. And because the return is deferred to the maturity of the GIC, the interest income realized is all taxed in the year of maturity. Consequently, depending on your clients' tax situation, market-linked GICs may not be the most tax efficient investments for them. Your clients may be better suited to hold market-linked GICs in registered plans, such as RRSPs and tax-free savings accounts.

SPLIT SHARES

4 | Describe the structure, risks, and the tax implications of split shares.

A split share is a security that divides the investment attributes of an underlying portfolio of common shares into separate components. Each component satisfies a different investment objective. These

investment vehicles are created by a type of closed-end fund known as split share corporations. The shares created by the split are listed and trade on a stock exchange.

The split share corporation holds common shares of one or more common stock issuers. The corporation then issues two types of shares: preferred shares and **capital shares**.

Preferred shares	These shares receive the majority of the dividends from the common shares held by the split share corporation. Preferred shares appeal to equity investors willing to sacrifice capital gain in favour of dividend income.
Capital shares	These shares receive the majority of any capital gains on the common shares. Capital shares appeal to equity investors who are willing to sacrifice dividend income in favour of capital gains.

In a typical split-share issue, the preferred share has a priority claim on all available dividends from the underlying portfolio of common shares. The preferred share is also entitled to a priority claim on the capital of the portfolio up to a certain value. The capital share receives all the capital appreciation on the portfolio above what the preferred share is entitled to. The capital share may also receive dividends after the preferred share dividend has been paid.

In many ways, split shares are akin to two different clients teaming up to buy a single stock. One of your clients (the preferred share investor) chooses the priority claim on the dividends in exchange for capital appreciation. The other client (the capital share investor) relinquishes the first claim on dividends in exchange for all the price appreciation above a certain value. Your capital share client is willing to give up dividends on the underlying common shares in exchange for a leveraged investment in those shares.

Split shares are issued for a specific term, as stated in the prospectus, ranging from three to more than 10 years. At the end of

the term, the split-share company redeems the shares. At that point, the owners of the preferred shares receive back their principal investment and any other obligations owed. The capital shareholders then receive the remaining value.

EXAMPLE

Assume that the common shares of ABC Corp. trade at $50 and pay an annual dividend of $1.50 (representing a 3% dividend yield). To create a split share based on ABC Corp., an investment dealer purchases ABC Corp.'s common shares and places them in an investment trust called ABC Split Corp. The trust then issues one ABC Split Corp. preferred share at a price of $25 for each ABC Corp. common share that the trust holds. Holders of the preferred shares receive the entire $1.50 dividend from the ABC Corp. common share, which represents a yield of 6%. In other words, the preferred share earns twice the dividend yield of the common share because only half as much money is required to earn the same amount. In exchange for the higher yield, the preferred share is entitled to only the first $25 of the value of each ABC Corp. common share that ABC Split Corp. owns.

ABC Split Corp. also issues one ABC Split Corp. capital share, priced at $25, for each common share held in the trust.
The capital share owners are entitled to all the capital appreciation of ABC Corp. above $25 per share for the term of the split-share corporation.

DID YOU KNOW?

Unlike regular common shareholders, investors who purchase capital shares from the split share corporation have purchased a leveraged position. In the example above, suppose that a common shareholder purchases ABC Corp. common shares for $50 per share. If the price of the common

shares increases by $5 to $55 per share, that investor would experience a 10% gain. However, the capital share owner would experience a 20% gain, because a $5 increase in value is based on the capital share owner's $25 per share investment. The reverse also holds true. A drop in the value of the underlying common shares leads to a greater drop in value for the capital shareholder, compared to the regular common shareholder.

RISKS ASSOCIATED WITH SPLIT SHARES

Both capital and preferred shares are influenced by the financial health of the underlying portfolio shares. Both types of shares also depend on good management of the split-share corporation. In particular, management must be vigilant to keep costs down and monitor the underlying portfolio. Some managed funds use options and leverage (i.e., borrowing for investment) to increase profit. These strategies increase risk for the investors but can also improve their opportunities for profit.

CAPITAL SHARE RISKS

Capital shares hold much more risk than preferred shares for the following two reasons:

- They are ranked after preferred shares in priority, in the event that the split-share corporation is wound up.
- They are not paid until after obligations to preferred holders, along with other liabilities, are paid.

Capital shareholders face three risks in particular: inherent leverage, volatility, and dividend cuts.

Inherent leverage	They can lose the entire value of their investment if the underlying portfolio of common shares declines sufficiently. Capital share investors must be comfortable

	with both the investment outlook for the common shares and with the capital share's leverage factor.
Volatility	Capital shares are a leveraged investment in a portfolio of underlying common shares and are therefore volatile. A study of price volatility (reported by Scotia Capital) revealed that capital shares tend to be significantly more volatile than the common shares held in the underlying portfolio, and therefore carry more risk.
Dividend Cuts	Capital shares may not receive dividends, but they are nevertheless susceptible to dividend cuts, especially when the corresponding preferred shares have a guaranteed dividend. A rate cut means that more portfolio shares must be sold to pay the dividends, which results in less value for holders of capital shares.

PREFERRED SHARE RISKS

Despite their priority claim over capital shares on both dividends and capital, split preferred shares are not without uncertainty. For example, a split-share corporation often reserves the right to wind up earlier than the stated maturity date, if the asset value falls below a specific level. In such cases, the corporation redeems the preferred shares early, which presents certain risks for the investor. These risks, and others, are explained below.

Reinvestment risk	Investors in split preferred shares lock in a rate of return on the purchase of a preferred share. If the shares are redeemed prior to maturity, the investors must find replacement investments, which may provide lower yields and fewer tax advantages.
Early	When investors purchase split shares, they may

redemption	pay a premium. If the split preferred shares are redeemed early, investors lose the premium. They should understand this risk and, if paying a price higher than redemption value, they should know the yield-to-call. Yield-to-call refers to the rate of return you would receive if you were to hold the investment until the call date, given that the shares were called.
Credit risk	Credit risk is the risk of change in the creditworthiness of the preferred share issuer as defined by a credit-rating agency. A reduced rating increases the yield demanded by the market, and thus tends to lower the price of preferred shares.
Decline in value of the underlying portfolio	A significant decline in the value of the underlying portfolio can reduce the price of split preferred shares. However, the shares are afforded a fairly generous degree of protection at issue, represented by the value of the capital share. As well, a decline in the value of the underlying common shares would have to be sustained over the life of the split preferred share. Investors can measure the amount of downside protection by comparing the split-share unit's net asset value with the redemption price of the split preferred share.
Taxation risk	An attractive feature of preferred shares is that the tax rate applied to dividend income they earn is lower than that applied to interest income. The relative appeal of this feature, however, depends on the investor's marginal tax bracket and province of residence. Investors should be aware that the tax rate on preferred shares could change

	if the government alters their status as flow-through entities. The tax rules for dividends and capital gains could also change. As well, any change in taxation rates in general could alter the relative attractiveness of these shares.
Dividend cuts	If the dividends on the underlying shares are cut or eliminated, the value of the split preferred shares is reduced, especially when the split-share dividend is tied to the portfolio dividend. If a split preferred share has a fixed dividend, and if portfolio dividends are too low to cover that dividend, portfolio shares must be sold to top up the dividend. Because this activity reduces the net asset value of the corporation, the downside risk of the preferred shares increases.

TAX IMPLICATIONS OF SPLIT SHARES

Split-share corporations are a type of closed-end fund. As such, after they have covered all costs of running the corporation, they pay out all remaining profits to their shareholders. When the corporation passes this net income on to the shareholders, it pays no income tax. Instead, the income is taxed in the shareholder's hands. Therefore, even if capital shares are designed to receive no income until the end of their term, they may still receive dividends from profits that are not owed to preferred holders. These profits may arise from portfolio sales required as a result of a merger or from rising dividends. In such cases, capital shareholders must declare that income and pay tax on it.

ASSET-BACKED SECURITIES

5 | Describe the securitization process for asset-backed securities.

6 | Describe asset-backed commercial paper and mortgage-backed securities.

Asset securitization is a process that aggregates financial assets such as mortgages, loans, and other receivables and transforms them into marketable securities. Numerous financial institutions use this process to transfer the credit risk of the assets on their statement of financial position to large institutional investors. Given their financial expertise, these institutional investors are able and willing to assume the risk of the underlying assets and the unique characteristics of the securities in which they are packaged. Financial institutions often sell these securitized products to reduce their need to establish capital reserves for the underlying assets. By relinquishing these assets, they free up capital to pursue business opportunities and make further loans.

THE SECURITIZATION PROCESS

In its most basic form, securitization is a three-step process involving the originator of the assets to be securitized, the **special purpose vehicle** (SPV) set up to purchase and manage the assets, and the issuer that controls the SPV and issues ABSs to investors. The three steps are as follows:

1. The originator, a company with income-producing assets, groups together assets it wants to remove from its statement of financial position. It pools these assets together into a reference portfolio.
2. The originator sells the pooled assets to an SPV controlled by the issuer. The SPV is set up for the sole purpose of purchasing the assets to take them off the originator's statement of financial position.

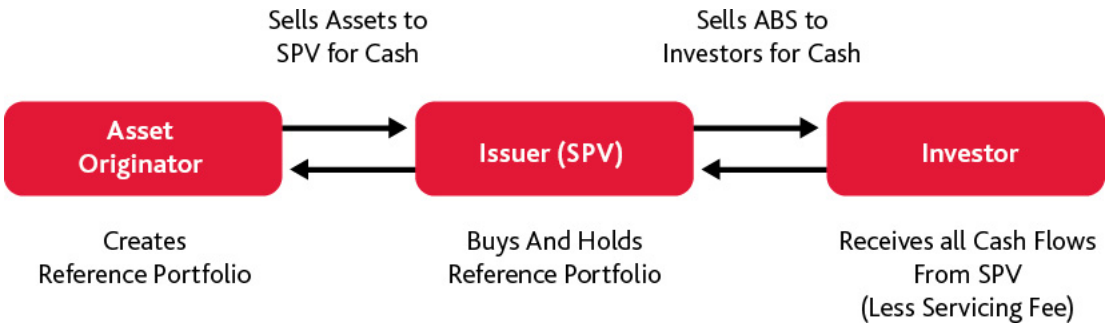
3. The issuer finances the purchase of these assets by the SPV by selling marketable securities called ABSs to investors. The investors include large financial institutions and managers of large pools of capital, such as life insurance companies, pension plans, mutual funds, and hedge funds.

Typically, the originator services the original income-producing assets for a fee, and then passes the net amount of interest income directly to the SPV. The SPV then redistributes this net amount to the various investors in the ABS. The investors receive either fixed or floating-rate interest payments.

With the cash received from the SPV in exchange for the reference assets, the originator is now able to expand its loan or asset portfolio. The originator often repeats the securitization process in a cycle. The ABS investor now has a claim on the cash flows emanating from the assets owned by the SPV. Because of their unique characteristics, ABS products are used by institutional investors to diversify their portfolios.

The securitization process is depicted in Figure 23.1.

Figure 23.1 | Asset-Backed Securitization Process



In its most basic form, the SPV issues only one class of ABS. Accordingly, each ABS investor has a claim on the SPV's assets and cash flows in direct proportion to the amount it owns.

However, with increasing investor interest, the ABS market has become more sophisticated and ABS design more complex. Most

ABS securities now divide the reference portfolio into a number of classes, commonly called **tranches**. Each tranche has its own level of credit risk and either a fixed or variable rate of return. The tranches are sold separately to investors who seek the appropriate risk-to-return opportunity from the SPV's assets.

Both the investment return (including principal and interest payments) and losses are allocated among the various tranches, according to their seniority in the SPV.

The standard securitization scheme assumes the three-tier tranche hierarchy described below.

Senior	The most creditworthy level, the senior tranche, has the first claim on any income generated by the SPV. It is normally the largest of the three levels, has the least amount of credit loss risk associated with it, and attracts the most credit-sensitive type of investor.
Mezzanine	Until this tranche is fully paid, the junior tranche is not entitled to any interest payments.
Junior	Investors in this least creditworthy tranche hope that there will be sufficient interest payments remaining to satisfy their claims when their time comes. This tranche is normally the smallest of the three. It has the greatest amount of credit risk and attracts investors who are more comfortable assessing and assuming risk. They expect to be compensated for the higher risk with a higher rate of return.

ASSET-BACKED COMMERCIAL PAPER

Asset-backed commercial paper (ABCP) is a type of ABS with a maturity date of less than one year (typically in the range of 90 to 180 days). Otherwise, it has the same legal and design structure as

a standard ABS. This product was initially designed to minimize **roll-over risk** by matching short-lived assets with short-term funding. Roll-over risk for an ABCP is the risk that the issuer will be unable to refinance or renew the underlying assets when the ABCP matures.

Repayment of a maturing ABCP normally depends on the cash flows emanating from the assets owned by the SPV. It also depends on the ability of the ABCP issuer to issue new ABCP to replace the maturing one (or renew the current one). If the ABCP is based on easily understood and easily valued assets, and if capital markets are stable and liquidity conditions good, the roll-over risk is relatively low. Over time, however, parts of the ABCP market have become more and more complex. Accordingly, ABCP has become increasingly difficult to understand, and therefore increasingly risky.

FOR INFORMATION ONLY

Canadian ABCP Crisis

Canada experienced its own financial crisis in 2007, when a number of issuers of non-bank managed ABCP announced that it was not possible to renew outstanding ABCP because conditions in the Canadian capital markets were unfavourable.

Apparently, an increasing number of ABCP trusts held an ever-increasing share of U.S. residential mortgage loans. At that time, the U.S. housing and mortgage crisis was growing, and news of its imploding prime market was spreading. Investors in Canadian ABCP became concerned that Canadian ABCP issuer SPVs could face material credit losses as a direct result of their subprime mortgage exposure.

In response to deteriorating market conditions, many ABCP issuers and sponsors decided to extend the maturity date on ABCP that had extension date features. Most banks declined requests for liquidity on the basis that current capital market conditions did not satisfy the market disruption clauses in their

liquidity guarantee agreements. Therefore, most SPVs were unable to repay holders of ABCP on their stated maturity date.

The decision by the non-bank ABCP liquidity guarantors formed the core of the Canadian ABCP crisis. The vast majority of these providers were domestic branches or affiliates of various foreign banks (Schedule II banks).

Most large Canadian Schedule I banks, in issuing ABCP securities, used the same bankruptcy-remote SPV structure employed by the non-bank, third-party ABCP issuers. Despite the legal remoteness of their ABCP SPVs, Schedule I banks voluntarily honoured all redemption and maturity-related aspects of their ABCP issues. They had the following three reasons for doing so:

- To help ensure the stability of the ABCP market
- To avoid possible spillover panic into other areas of the money and short-term funding markets
- To avoid damage to their reputations

The Canadian ABCP market is divided into the following two parts:

- ABCP issued and guaranteed by chartered banks (Schedule I)
- ABCP issued by SPVs sponsored or guaranteed by non-banks (non-Schedule I)

At its peak in early 2007, the total Canadian ABCP market was estimated at over $120 billion. The ABCP liquidity crisis was extensive: the non-bank, or third-party, sponsored portion of the Canadian ABCP market was estimated at about $32 billion.

Among several factors that contributed to the ABCP crisis, the following three factors were most important:

- A mismatch between the maturity of the ABCP and the maturity dates of the associated underlying assets (in the

SPV)

- ABCP investment in assets, and derivatives on those assets, that had substantial credit risk
- Common product design legal terms that were not sufficiently clear about proper interpretation of non-bank, third-party liquidity guarantee clauses; in particular, the definition of *market disruption*

For investment advisors, one of the most important lessons of the Canadian ABCP crisis was that many investors were not aware of the nature and type of investments underlying their ABCP investments. This lack of transparency is one of the hallmarks of ill-designed investment vehicles. As an advisor, transparency should be your paramount concern when you are considering new investment vehicles such as structured products and hedge funds for your clients' portfolios. It is essential that both you and your clients understand what you are recommending.

MORTGAGE-BACKED SECURITIES

MBSs are a class of income-producing structured product designed to provide liquidity in the illiquid mortgage market. Introduced in 1986, MBS issues trade in the secondary market and have become a routine part of the mortgage industry. Also known as **mortgage pass-through securities**, these products are a type of bond that claims ownership to a portion of the cash flows from a pool of mortgages. An intermediary collects the monthly payments from the issuers of the mortgages and, after deducting a fee, remits them (i.e., passes them through) to the MBS holders. Therefore, every month, holders receive a proportional share of the interest and principal payments associated with the mortgages.

MBSs are similar to other bonds in the following ways:

- They carry interest rate risk, which increases with the length of the term to maturity.

- They carry credit risk, which is the risk of change in the creditworthiness of the issuer, or that the issuer will be unable to pay the bond's coupons and principal at the maturity date.
- Their prices are inversely related to interest rates, which means that their market price drops when interest rates rise, and vice versa.

Unlike bonds, however, many MBSs also have prepayment risk, particularly those issued in the U.S. bond market and a portion of those issued in the Canadian market. The nature of residential mortgages in United States and Canada is such that homeowners may elect to prepay their mortgage principal (i.e., pay down a portion of the principal ahead of schedule). Because residential mortgages form part of the pools of mortgages that underlie the MBS, the risk of prepayment becomes an inherent part of the security.

In both the Canadian and U.S. MBS market, the vast majority of MBSs are assumed to be of AAA credit quality. This is because they are issued with either an explicit or implicit government guarantee of timely payment of interest and principal in the event of delinquency or default of the borrower.

STRUCTURE AND BENEFITS OF MORTGAGE-BACKED SECURITIES

In Canada, the security backing the underlying mortgages in an MBS is residential properties—single-family, multi-family, or social housing. The properties are fully insured by the Canada Mortgage and Housing Corporation (CMHC) as to interest, principal, and timely payment. There is no limit to the size of holding that can be insured.

National Housing Act (NHA) MBSs can be structured with an open or a closed pool. Open mortgages may have provisions for prepayment, which can have significant effects on the cash flows and yields. Therefore, MBSs are composed separately of prepayable (open) and non-prepayable (closed) mortgages, as follows:

- In an open NHA MBS, the owners of the underlying properties can prepay the principal. The return and pricing of an open MBS is therefore somewhat uncertain because of the unsteady or unpredictable cash flows.
- Closed mortgage pools are made up of social housing and multiple-family home mortgages. Because prepayment of principal is not allowed with closed NHA MBS, cash flows and pricing are more certain than with open mortgage pools.

DID YOU KNOW?

When interest rates are falling, it is profitable for property owners to prepay their open mortgages and refinance the property at a lower rate. For this reason, the realized yields on prepayable MBSs are lower than the yields expected based on the interest rates of the component mortgages.

The income stream of an MBS is a combination of interest and scheduled principal payments. It can also include prepayments and any prepayment penalties. Deductions are made for servicing and guarantee fees as well.

Terms of an MBS can be as short as three years or longer than 10 years. Any principal not yet prepaid at maturity is returned to the investor.

Monthly payments occur on the 15th day of each month, rather than on the first day. This delay reflects the time spent collecting mortgage payments and calculating the new outstanding mortgage balances. This payment method has a cost at the end of term, when the remaining principal is returned to the holders. A significant loss can incur on a large holding over the two-week period.

One of the primary benefits of an MBS is its monthly income stream, which makes it well-suited to provide retirement income. Also, the only part of the income stream that is taxable is the interest income;

the return of principal is not taxable. These securities are fully liquid and can be sold at market value at any time.

Your clients who choose to invest in a CMHC-guaranteed MBS effectively place their money in real estate without the risk of default, and without the problems of collection and credit appraisal.

The most common MBSs are five-year pools denominated in multiples of $5,000. An MBS earns a return that is comparable to a GIC, typically higher than that of a Treasury bill (T-bill) or other Government of Canada bond with similar terms.

Because the Government of Canada stands behind the CMHC guarantee, MBSs are roughly equal in security to Government of Canada T-bills and bonds. As such, one would expect the yields to be virtually the same as those of government bonds. In fact, there is a clear yield premium on the MBS.

MBSs have several benefits and various risks, which are detailed below.

Benefits	• They are fully guaranteed by the Government of Canada as to principal, interest, and timing of payments, when held to maturity. • The CMHC guarantee does not limit the holding's size. • Guaranteed monthly payments are provided. • Yields are higher than the equivalent maturity Government of Canada bonds. • They are very liquid. • A low minimum investment is required (usually $5,000). • They are eligible to be held within an RRSP, registered retirement income fund, or tax-free savings account.

Risks

- The prepayment possibility on prepayable MBSs introduces reinvestment risk. If rates decline, it may not be possible to find the same attractive yield.
- For a prepayable MBS issue, increased payments might be received when unscheduled payments are made by the borrowers. Extra payments may also include bonuses or penalties. Both these situations reduce future interest payments.
- If a mortgage loan goes into default, all MBS investors may receive the full payment of the principal of a mortgage loan before the scheduled maturity date. When that happens, interest payments from that property come to an end.
- Similarly, if the mortgage property is damaged, legal action may result in the liquidation of the loan from the NHA MBS pool.
- Although MBSs are liquid, if market rates have increased and there is still a considerable time to maturity, a capital loss might be incurred when they are sold.

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, we discussed the following key aspects of structured products:

- PPNs are debt-like instruments with a maturity date, whereby the issuer agrees to repay investors the amount originally invested (the principal) plus interest. They are issued by chartered banks, but they are not protected by the CDIC. Two of the most popular types of PPNs issued in Canada are index-linked PPNs, with a participation rate or performance cap, and stock basket-linked PPNs. PPNs are inappropriate for investors who rely on a regular and predicable investment income.
- Market-linked GICs combine the safety of a guaranteed principal with some of the growth potential of an underlying asset or benchmark. The total return may be limited either by a maximum cap on returns or by a participation rate. In most cases, investors cannot redeem market-linked GICs prior to the maturity date. The return on these investments is taxed as interest income.
- Split shares separate the investment attributes of an underlying portfolio of common shares into preferred share and capital share components. The preferred shares receive the majority of the dividends from the common shares held by the split share corporation. The capital shares receive the majority of any capital gains on the common shares. Split shares are issued for a specific term stated in the prospectus; at the end of the term, the split-share company redeems the shares.
- Asset securitization is a process that aggregates and transforms financial assets such as mortgages, loans, and other receivables into marketable securities called ABSs. The originator of the ABS groups assets together to remove them from its statement of financial position. The assets are pooled into a reference portfolio and then sold to a separate legal entity called an SPV. Marketable securities are then sold against the SPV. Most ABS securities divide the reference portfolio into tranches with different levels of risk and reward.
- ABCP is a particular type of ABS with a maturity date of less than one year. Repayment of a maturing ABCP normally depends on the cash flows emanating from the assets owned by

the SPV, as well as the ability of the ABCP issuer to issue a new ABCP (or renew the current one).

- MBSs are bonds that claim ownership to a portion of the cash flows from a group or pool of mortgages. Most MBSs are assumed to be of AAA credit quality, because they are issued with a government guarantee that interest and principal will be repaid. The underlying mortgages in an MBS may have provisions for prepayment, which can have a significant effect on cash flows and yields. The securities are therefore structured with either an open (prepayable) or closed (non-prepayable) mortgage pool.

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 23 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 23 FAQs.

SECTION 8

WORKING WITH THE CLIENT

Canadian Taxation 24

CHAPTER OVERVIEW

In this chapter, you will learn the basics of taxation, including the tax features of pension income, tax deferral plans, and tax-free savings plans in Canada. We explain how the different types of income are taxed and identify the expenses related to investment income that might be tax-deductible. We also explain the two main types of pension plans and the different types of tax deferral and tax-free registered plans. Finally, you will learn some basic tax planning strategies.

LEARNING OBJECTIVES	CONTENT AREAS
1 | Differentiate between the tax treatment of interest income, dividends, and capital gains or losses.	**The Canadian Taxation System**
2 | Calculate investment gains and losses.	**Capital Gains and Losses**
3 | Describe the different tax deferral and tax-free plans and their uses.	**Tax Deferral**

		and Tax-Free Plans
4 |	Identify basic tax planning strategies and strategies for minimizing tax liability.	**Tax Planning Strategies**

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

annuity

attribution rules

Canada Education Savings Grant

carrying charges

contribution in kind

deemed disposition

deferred annuity

defined benefit plans

defined contribution plan

fiscal year

income splitting

marginal tax rate

money purchase plans

past service pension adjustment

pension adjustment

pooled registered pension plan

registered education savings plan

registered pension plan

registered retirement income fund

registered retirement savings plan

self-directed registered retirement savings plan

spousal registered retirement savings plan

superficial losses

tax-free savings account

withholding tax

INTRODUCTION

Taxes are a reality of life for most Canadians. All investment income in the year is taxable unless held in a tax-free or tax-deferred account. To complicate the matter, interest income, dividends, and capital gains are each taxed differently. Also, the continually changing legislation announced each year in the federal budget affects the taxation rate of investment income.

In the role of an investment advisor, you do not need to become a tax expert. Most advisors rely on the professional input of accountants and tax experts when the need to make a decision on a specific tax matter arises. However, in that capacity you must have a working knowledge of the taxation of investment income. Failure to optimize the after-tax returns of your clients' investments can result in them paying more than necessary and earning a lower return on their investments. We provide this chapter to help you understand the basic principles of taxation and some of the key strategies and opportunities used to maximize after-tax revenues.

THE CANADIAN TAXATION SYSTEM

1 | Differentiate between the tax treatment of interest income, dividends, and capital gains or losses.

The Canadian federal government imposes taxes on income by federal statute under the Income Tax Act. All Canadian provinces have separate statutes that impose a provincial income tax on their residents and on non-residents who conduct business or have a permanent establishment in that province. The federal government collects provincial income taxes for all provinces except the following two:

- Quebec, which administers its own income tax on both individuals and corporations
- Alberta, which administers its own income tax on corporations

Canada imposes an income tax on foreign income earned by its residents and on certain types of Canadian-source income on non-residents. Companies incorporated in Canada under federal or provincial law are usually considered to reside in Canada. Also, foreign companies with management and control in Canada are considered resident in Canada and are therefore subject to Canadian taxes.

CALCULATING INCOME TAX

All taxpayers must calculate their income and tax on a yearly basis. Individuals use the calendar year. Corporations may choose any **fiscal year**, as long as the chosen period is consistent year over year. No corporate taxation year may be longer than 53 weeks.

Income tax calculation is a five-step process, as follows:

1. Calculate all sources of income
2. Make allowable deductions to arrive at taxable income
3. Calculate the gross or basic tax payable on taxable income
4. Claim allowable tax credits on tax payable, if any
5. Calculate the net tax payable

The various deductions, exemptions, and tax credits that may be allowable in calculating taxable income depend on the type of income earned.

TYPES OF INCOME

There are four general types of income, each treated differently under Canadian tax laws.

Employment income	Employment income includes wages, salary, and benefits, alone or combined. It is taxed on a gross receipt basis, which means that taxpayers cannot deduct all costs incurred in earning this type of income for tax purposes. However, they are allowed to deduct a few employment-related expenses such as pension contributions, union dues, and childcare expenses.
Business income	Business income is any income earned from producing and selling goods or rendering services. Self-employment income falls under this category.

	Business income is taxed on a *net-income basis*, which means that, unlike employees, business owners are allowed to deduct all costs incurred in earning the income. Those costs include business-related expenses such as rent or mortgage, employee payroll, and the cost of supplies and equipment. (*Note:* Taxation of this type of income is not covered in this course.)
Income from property	Income from property includes interest income, dividends, and royalties. This income derives from assets purchased solely for investment purposes, such as stocks, bonds, and mutual funds. (*Note:* Income from rental properties is included in this category, but it is not covered in this course.)
Capital gains and losses	A capital gain or capital loss occurs when a taxpayer sells property. Any increase in value over the purchase price is a capital gain; any decrease is a capital loss. A capital gain is taxed only after the property is sold, in the year it is sold. Tax is not paid year by year as the property gains value. A capital gain is typically calculated as the sale price, minus any selling expenses (such as the commission on the sale of stocks), minus the adjusted cost base (which is generally composed of the purchase price plus commission expense at the time of purchase).

TAXATION OF INCOME

Basic tax rates are applied to taxable income. Rates of federal tax applicable to individuals in 2020 (excluding tax credits) are shown in

Table 24.1.

Table 24.1 | Federal Income Tax Rates for 2020 (for Information Only)

Tax Rate	Taxable Income Bracket
15%	On the first $48,535 of taxable income
20.5%	On the next $48,534 of taxable income on the portion over $48,535 and up to $97,069
26%	On the next $53,404 of taxable income on the portion over $97,069 and up to $150,473
29%	On the next $63,895 of taxable income on the portion over $150,473 and up to $214,368
33%	On taxable income over $214,368

Source: Adapted from Canada Revenue Agency

Note: The Canada Revenue Agency website (www.canada.ca/en/revenue-agency) should be consulted for current tax related information.

Currently, all provinces levy their own tax on taxable income. Provincial amounts are calculated in essentially the same way as federal tax. Adding the provincial rate to the federal rate gives the taxpayer's combined **marginal tax rate**, which is the rate at which tax must be paid on each additional dollar of income earned.

EXAMPLE

Margaret's employment income during 2020 was $155,000. She has no other source of income and is a Canadian resident. Her federal tax (before credits are applied, and based on the rates in Table 24.1) is $32,427.59, as shown in Table 24.2.

Table 24.2 | Margaret's Income Tax Calculations

Tax Rate	Taxable Income	Tax Payable
15.0%	On the first $48,535	$7,280.25
20.5%	On the next $48,534	$9,949.47
26.0%	On the next $53,404	$13,885.04
29.0%	On the next $4,527	$1,312.83
Total	**$155,000**	**$32,427.59**

If Margaret were to earn an additional dollar, increasing her taxable income from $155,000 to $155,001, she would pay 29% federal tax on that dollar. In other words, her federal marginal tax rate is 29%.

TAXATION OF INCOME FROM PROPERTY

Except with property consisting of investments held in a registered plan, income from property is taxable in the year it is earned. The tax must be paid on an annual accrual basis, regardless of whether it is actually received as cash in that year.

Registered plans are discussed later in this chapter.

DID YOU KNOW?

Income from property held outside a registered plan is taxed on an accrual basis. In other words, it must be reported for tax purposes when it is earned, not when it is received. For example, the income of products like zero-coupon bonds are received only at maturity or at sale, but the tax on such investments is charged annually. In the role of an investment advisor, you must be cautious about taxes due on amounts not yet received.

INTEREST INCOME

Interest income is defined as the compensation received by lenders for the use of the funds they lend. This type of income is fully taxable at the investor's marginal tax rate, either when it is received or as it accrues. Accrued interest is included in taxable income every year. It can be deferred for no more than one year.

DIVIDENDS FROM TAXABLE CANADIAN CORPORATIONS

Note: Two types of dividend tax credits are available on Canadian corporate shares: one for privately-held and one for publicly-traded corporations. In this chapter, we focus on tax credits available on publicly-traded corporate shares.

A dividend tax credit is available on publicly-traded dividend-paying shares of taxable Canadian companies. This credit makes the purchase of these shares relatively attractive, compared to interest-paying securities.

The dividend tax credit reflects the fact that corporations pay dividends from after-tax income—that is, from their net profits. The amount included in a taxpayer's income is therefore "grossed-up" to equal approximately what the corporation would have earned before tax. The taxpayer then receives a tax credit that offsets the amount of tax the corporation paid.

Eligible Canadian dividends are grossed-up by 38% in 2020 to arrive at the taxable amount of the dividend. The taxpayer receives a federal dividend tax credit on this amount (15.02% of the taxable amount of dividend in 2020). Dividend tax credits are also available at varying provincial levels.

The amount of tax owing is calculated based on the taxpayer's marginal tax rate. The lower the marginal tax rate, the lower the tax payable on eligible Canadian dividends.

EXAMPLE

Sandra receives a $1,000 eligible dividend from a Canadian corporation. She reports $1,380 in net income for tax purposes, calculated as follows:

(A) Eligible Canadian dividends	$1,000
(B) Gross up total amount (%)	138%
(C) Taxable amount of the dividend (A × B)	$1,380

Sandra declares a net dividend income of $1,380 on her tax return (38% higher than the $1,000 dividend she received). She then claims a federal dividend tax credit in the amount of 15.02% of the taxable amount of the dividend (C). The tax credit amount is $207.28, calculated as follows:

(C) Taxable amount of the dividend (A × B)	$1,380
(D) Dividend tax credit (%)	15.02%
(E) Dividend tax credit ($) (C × D)	$207.28

The real amount of tax payable depends on Sandra's marginal tax rate, as shown in Table 24.3.

Table 24.3 | Sandra's Marginal Tax Rate

(C) Taxable amount of the dividend (A x B)	$1,380	$1,380	$1,380	$1,380	$1,380
(F) Federal Marginal Tax Rate	15%	20.50%	26%	29%	33%
(G) Tax Payable on the Taxable amount of the dividend (C × F)	$207.00	$282.90	$358.80	$400.20	$455.40
Minus (E) Dividend tax credit	$207.28	$207.28	$207.28	$207.28	$207.28
Net Tax Payable on	$0	$75.62	$151.52	$192.92	$248.12

dividend (G – E)

The dividend gross-up and federal tax credit are shown on the T5 tax form sent annually to shareholders. Who issues and sends the T5 form depends on how the shares are held. Registered shareholders receive the T5 form from the dividend-paying corporation itself; investment dealers holding shares in street name issue the T5 form to the beneficial owners. Quite often, the investment dealer combines all dividends paid to the investor during the year and issues a single T5 form for all of them.

Stock dividends and dividends that are reinvested in shares are treated in the same manner as cash dividends.

DID YOU KNOW?

A T5 tax form is a document identifying the investment income that Canadian residents must report on their income tax returns.

DIVIDENDS FROM FOREIGN CORPORATIONS

Foreign dividends are generally taxed as regular income, in much the same way as interest income. Individuals who receive dividends from non-Canadian sources usually receive a net amount from these sources; non-resident withholding taxes are applied by the foreign dividend source. Such investors may be able to use foreign tax credits to offset the Canadian income tax otherwise payable. The allowable credit is essentially the lesser of the foreign tax paid or the Canadian tax payable on the foreign income, subject to certain adjustments. Details on what foreign tax is allowed as a deduction are available from the Canada Revenue Agency (CRA).

CAPITAL GAINS AND LOSSES

A capital gain arises when a property is sold (or deemed to be sold) for more than its cost. A capital loss arises when a property is sold for less than its cost. Capital gains earned are taxable and must be reported when they are realized. However, capital gains benefit from favourable tax treatment in Canada because only 50% of the capital gain is taxable. Capital losses can be used to reduce any capital gains that have been earned. They cannot generally be used to reduce any other type of income. Capital gain taxation is discussed in detail later in this chapter.

MINIMIZING TAXABLE INVESTMENT INCOME

Dividends from taxable Canadian corporations and capital gains are subject to lower tax rates than interest income. Accordingly, a shift from interest-bearing investments to dividend-paying Canadian stocks may reduce taxes and improve after-tax yield.

Investors' tax consequences can vary considerably, depending on their type of income and marginal tax rate. Tables 24.4 and 24.5 illustrate the difference in tax owed on $1,000 of interest income, $1,000 of eligible Canadian dividend income, and $1,000 of capital gains. The difference between the tax owed on these same amounts can be substantial, depending on the person's marginal tax rate.

Table 24.4 | Comparison of Tax Consequences of Investment Income in a 29% Marginal Tax Bracket

	Interest Income	Eligible Canadian Dividend Income	Capital Gains Income
Income Received	$1,000.00	$1,000.00	$1,000.00
Taxable Income	$1,000.00	$1,380.00	$500.00

		(Grossed up by 38%)	(50% of $1,000)
Federal Tax (29%)	$290.00	$400.20	$145.00
Less: Dividend Tax Credit (15.02%)	–	$207.28	–
Federal Tax Owed	$290.00	$192.92	$145.00

Table 24.5 | Comparison of Tax Consequences of Investment Income in a 15% Marginal Tax Bracket

	Interest Income	Eligible Canadian Dividend Income	Capital Gains Income
Income Received	$1,000.00	$1,000.00	$1,000.00
Taxable Income	$1,000.00	$1,380.00 (Grossed up 38%)	$500.00 (50% of $1,000)
Federal Tax (15%)	$150.00	$207	$75.00
Less: Dividend Tax Credit (15.02%)	–	$207.28	–
Federal Tax Owed	$150.00	$0.00	$75.00

TAX-DEDUCTIBLE ITEMS RELATED TO INVESTMENT INCOME

Tax rules permit individuals to deduct certain expenses used for the purpose of earning income from property. These deductible expenses are called **carrying charges** for tax purposes. The following carrying charge deductions are considered acceptable:

- Interest paid on funds borrowed to earn such investment income as interest and dividends
- Fees paid for certain investment advice
- Fees paid for management, administration, or safe custody of investments
- Accounting fees paid for the recording of investment income

DIVE DEEPER

Additional carrying charges than those listed above may apply in specific situations; however, they are not covered in this course. For detailed information on carrying charges, visit the CRA website.

The following charges cannot be deducted from investment income:

- Interest paid on funds borrowed to buy investments that can only generate capital gains
- Brokerage fees or commissions paid to buy or sell securities
- Interest paid on funds borrowed to contribute to a **registered retirement savings plan** (RRSP), a **registered education savings plan** (RESP), a registered disability savings plan (RDSP), or a **tax-free savings account** (TFSA)

- Administration, counselling, or trustee fees for a regular or **self-directed registered retirement savings plan**, or for a **registered retirement income fund** (RRIF)
- Fees paid for advice such as financial planning
- Safety deposit box charges

CAPITAL GAINS AND LOSSES

2 | Calculate investment gains and losses.

As mentioned earlier, a capital gain occurs when capital property, such as shares or bonds, is sold for more than its original cost. In simple terms, a capital gain is the difference between the property's selling price and the price at which it was bought (the *cost price*).

For tax purposes, however, calculating a capital gain is not so simple. Costs other than the cost price are often involved in the purchase and sale of property, such as commissions paid on purchases and sales of stocks and debt securities. In addition, the past value of certain properties on which capital gains are calculated (such as real estate held for many years) is difficult to determine. And finally, additional securities are often bought at different prices and at different times over the investment's holding period.

DID YOU KNOW?

CRA uses the technical term disposition to mean the sale of an asset such as a security or capital property. Therefore, we use the terms disposition and sale interchangeably in this chapter.

Generally, CRA treats the proceeds of a sale of securities (either equities or fixed-income securities) as a capital gain. However, an exception may occur if the investor's intentions are determined to be

more speculative as indicated by the trading action. In such cases, CRA may argue that the investor is speculating and that gains realized are fully taxable as ordinary income (and losses fully deductible). CRA reviews the following factors in assessing whether trading is, by their definition, speculative:

- Short periods of ownership
- A history of extensive buying and selling or quick turnover of securities
- Special knowledge of, or experience in, securities markets
- Substantial investment of time spent studying the market and investigating potential purchases
- Financing share purchases primarily on margin or some other form of debt
- The nature of the shares (e.g., whether they are a speculative, non-dividend type)

None of these factors alone may be sufficient for CRA to characterize the taxpayer's trading activities as business activities. However, a number of factors in combination may be enough to do so. In every instance, the particular circumstances of the sale must be evaluated before a determination can be made.

DID YOU KNOW?

CRA interprets a dealer or trader in securities to be a taxpayer who participates in the promotion or underwriting of a particular issue of shares or who, to the public, is a dealer in shares. In general, an employee of a corporation engaged in these activities is not a dealer. If, however, as a result of employment, an employee engages in insider trading to realize a quick gain, the taxpayer will be considered to be a trader of those particular shares.

DISPOSITION OF SHARES

To determine a capital gain or loss, the general rule is to subtract the cost of the investment from the proceeds of the sale.

The proceeds of the sale simply refers to the selling price multiplied by the quantity (shares, units or face value) of the investment sold. It is more difficult to figure out the cost of the investment to calculate the capital gain. This amount, called adjusted cost base, establishes the cost of the investment for tax purposes. The adjusted cost base of shares sold is generally composed of the total cost of purchase plus commission expense.

EXAMPLE

Hilde buys 100 ABC common shares at $6 per share and pays a $17 commission on the purchase. Two years later, she sells the 100 shares at $10 per share, with a sales commission of $25. In the year of sale, the client's taxable capital gain is calculated as follows:

Gross proceeds from sale (100 × $10) = $1,000

Less: Adjusted cost base, which is the share cost (100 × $6 = $600) + commission of $17 = $617

= $1,000 – $617 = $383

Less: Commission on sale of $25

Capital Gain = $358

Taxable capital gain = 50% × $358 = $179

ADJUSTED COST BASE OF ADDITIONAL SHARES

Investors might own a number of the same class of shares that were bought at different times and different prices. When an investor owns identical shares in a company that were bought at varying prices, the

average cost method is used to calculate the adjusted cost base per share. You can calculate the average cost per share by adding together the cost base of all such stock and dividing by the number of shares held.

EXAMPLE

Hugo bought 200 ABC common shares at $6 per share in January of last year, and 100 ABC common shares at $9 in June of this year. When Hugo sells any of these ABC common shares, the cost base used is the average cost of $7.15 per share, calculated as follows:

200 × $6 (including a $25 commission)	= $1,225.00
100 × $9 (including a $20 commission)	= $920.00
Total cost	= $2,145.00
$2,145 ÷ 300	= $7.15 per share

ADJUSTED COST BASE OF CONVERTIBLE SECURITIES

When an investor exercises the conversion right attached to a security, the conversion is deemed not to be a disposition of property. Therefore, no capital gain or loss arises at the time of the conversion. Instead, the adjusted cost base of the new shares acquired is deemed to be that of the original convertible securities.

EXAMPLE

A client buys 100 ABC preferred shares at a total cost of $6,000. Each preferred share is convertible into five ABC common shares. These securities are later converted into common shares, so the client now holds 500 ABC common shares. For tax purposes, the

adjusted cost base of each ABC common share is $12, calculated as follows:

Adjusted cost base of each preferred share (original cost + commission)	= $60
Number of common shares acquired through conversion of one preferred share	= 5 shares
Adjusted cost base of one common share ($60 ÷ 5)	= $12 per share

ADJUSTED COST BASE OF SHARES WITH STOCK DIVIDENDS OR REINVESTMENT PLANS

Investors who receive stock dividends or who subscribe to dividend reinvestment plans must declare the dividends as income in the year they are paid. Investors should keep a record of stock dividends and reinvestments because they increase the adjusted cost base of the investment. When the stock is sold, the higher adjusted cost base will reduce any capital gain and increase any capital loss.

ADJUSTED COST BASE OF SHARES WITH WARRANTS OR RIGHTS

Investors acquire warrants and rights in one of three ways:

- Through direct purchase in the market
- By owning shares on which a rights offering is made
- By purchasing a unit of securities (such as a bond with warrants attached)

The method by which warrants and rights are acquired is important because there is a different tax treatment for the shares acquired when the warrants or rights are exercised. Four different approaches are described below.

Direct purchase of warrants and rights	Exercising warrants and rights is deemed not to be a disposition of property. Therefore, no capital gain or loss arises at the time of exercise. Instead, the adjusted cost base of both types of securities, once exercised, will be based on the total outlay of funds divided by the number of common shares owned.
Rights received from direct share ownership	When receiving rights from direct ownership and then exercising those rights, the investor must calculate a new cost base for all the common shares owned, including the original shares purchased as well as the new shares purchased when exercising the rights.
Unexercised warrants or rights	Warrants and rights are not always exercised. Instead, the investor may sell them in the open market or allow them to expire. If the warrants and rights were directly purchased, the capital loss would equal the purchase cost plus commission. If the warrants and rights were acquired at zero cost, neither a capital gain nor loss would apply.
Warrants and rights received at zero cost and then sold in the open market	Their cost is considered to be zero, and all the profits realized are taxed as capital gains.

DISPOSITION OF FIXED-INCOME SECURITIES

The sale or redemption of a fixed-income security by investors (but not by traders) often produces a capital gain or capital loss. For tax purposes, fixed-income securities include bonds, debentures, bills, notes, mortgages, hypothecs, and similar obligations.

DID YOU KNOW?

Some fixed-income securities do not result in capital gains when disposed of by an investor. For example, savings bonds typically do not have a secondary market; therefore, they do not fluctuate in price and cannot generate a capital gain.

ACCRUED INTEREST

Capital gains and losses on fixed-income securities are determined in the usual manner—by subtracting purchase costs from the proceeds of the sale. (Purchase costs consist of the adjusted cost base plus expenses of the sale). In addition, a security may have accrued interest owing at the time of disposition. Accrued interest is not included in the capital gains calculation because interest at the date of sale is income to the vendor. Purchasers may therefore deduct that amount from interest they subsequently receive when they report income on their tax return.

Investors selling bonds are entitled to receive the interest up to the settlement date. However, suppose that a situation arises where the date of sale is five months after the last regular interest payment and the next payment is due in one month. In such a case, the buyer must pay the seller interest due from the last payment of regular interest up to the settlement date.

EXAMPLE

Jared buys $10,000 principal amount of a 5% semi-annual bond at par. He must pay accrued interest of $200 at the time of

purchase to the seller, which is calculated as follows:

$10,000 principal amount of 5% bonds at par	=	$10,000
Plus: Accrued interest	=	$200
Total cost	=	$10,200

The seller of the bond includes, as investment income for the year of sale, $200 accrued interest that was received from the sale and any other interest received as the bond owner during the year. On the same return, the proceeds of disposition of $10,000 are used to calculate a capital gain or loss.

The buyer includes, as investment income for the year of purchase, net interest income of $300 from the bond ($500 interest for the year less $200 accrued interest paid to the seller). When the buyer later sells the bond, the adjusted cost base is $10,000, rather than $10,200.

CAPITAL LOSSES

A capital loss occurs when a security is sold for less than its cost. Capital losses are calculated in the same manner as capital gains and can be deducted from capital gains, in most circumstances.

EXAMPLE

Stanley sold shares in his bank stocks for a $5,250 capital gain. That same year, unfortunately, Stanley's computer tech stocks dropped in value and he sold the shares for a capital loss of $3,000. Normally, Stanley would pay tax on $2,625 of his capital gain ($5,250 gain × 50%) but is permitted to deduct $1,500 of the allowable capital loss ($3,000 loss × 50%) from that amount. Because of the deduction, Stanley will pay tax on only $1,125 ($2,625 taxable capital gain – $1,500 allowable capital loss).

Allowable capital losses that cannot be used in the tax year can be carried back and applied against taxable capital gains in any of the previous three years in most cases or can be carried forward indefinitely. It is also important to note that allowable capital losses can only be used to offset taxable capital gains. Typically, allowable capital losses cannot be used against other income.

Two additional factors involved in capital losses are important considerations: worthless securities and **superficial losses**.

WORTHLESS SECURITIES

When a security becomes worthless, the security holder must fill out a CRA form electing to declare the security worthless, so that a capital loss can be realized for tax purposes. Of course, the tax rule does not apply to instruments that have an expiry date, such as warrants, rights, or options. Investors can claim capital losses for such securities after they have expired without signing a declaration.

One exception to this rule occurs when a security becomes worthless due to the underlying company's bankruptcy (or insolvency, under certain conditions). In this situation, the Income Tax Act deems the taxpayer to have disposed of the security for nil proceeds and reacquired it at a cost of nil.

SUPERFICIAL LOSSES

A superficial loss occurs when securities sold at a loss are repurchased within 30 calendar days before or after the sale and are still owned at the end of 30 calendar days after the original sale. Superficial losses are not tax deductible as a capital loss. The tax advantage may not be totally lost; in most cases, it is simply deferred.

The superficial loss rules are intended to make it more difficult for taxpayers to sell and re-purchase assets solely for the purpose of creating deductible capital losses without any meaningful change in ownership.

EXAMPLE

Pierre buys 100 XYZ shares at $30 per share in mid-April and sells the shares at $25 per share on May 1. He incurs a $500 capital loss (calculated as $3,000 – $2,500). Normally, an allowable capital loss of $250 (calculated as 50% of $500) would be deductible against taxable capital gains. However, the superficial loss rule applies in either of the following two scenarios:

- On May 15, Pierre reacquires 100 XYZ shares at a price close to the $25 per share sale price and holds the shares until July. Because the transaction took place within 30 days after the disposition on May 1, and the shares are held 30 days after the original disposition, the loss is considered a superficial loss. In other words, it is not a capital loss that can be deducted against taxable capital gains.
- On April 29, Pierre acquires an additional 100 shares of XYZ near the initial $30 per share purchase price. The shares then fall in price and he sells 100 XYZ shares on May 1 at $25 per share. He still holds 100 shares until July. Because the same shares were acquired less than 30 days before the May 1 disposition and owned for at least 30 days after the original disposition, this loss is also considered a superficial loss.

Tax rules for superficial losses apply not only to trades made by the investor, but also to the following people affiliated with the investor:

- The investor's spouse or common-law partner
- Corporations controlled by the investor or spouse
- A trust in which the investor is a majority interest beneficiary

Superficial losses are non-deductible for tax purposes. In most cases, however, the taxpayer eventually receives the tax benefit of a superficial loss when the investment is sold. The amount of the loss

is added to the cost of the repurchased shares, thereby reducing the ultimate capital gain for tax purposes.

EXAMPLE

Using the previous example, suppose Pierre's $500 capital loss had been a superficial loss, and the shares were reacquired at $25 per share before May 31. The loss of $5 per share would be added to the cost of the 100 XYZ shares owned on May 31. In this way, the potential future amount of the capital gain is reduced.

If 100 XYZ shares are later sold at $40 per share, the capital gain is calculated as follows:

Proceeds from disposition (100 × $40)		=	$4,000.00
Less:	Cost of repurchasing shares (100 × $25)	=	$2,500.00
	Commission on purchase	=	$45.00
	Superficial loss (100 × $5)	=	$500.00
	Subtotal	=	$955.00
Less:	Commission on sale	=	$60.00
	Capital gain	=	$895.00
	Taxable capital gain (50% of $895)	=	$447.50

Rules regarding superficial losses do not apply to losses that result from the following circumstances:

- The investor emigrates from Canada.
- The investor dies.

- An option expires.
- A deemed disposition of securities by a trust occurs (a **deemed disposition** is a disposition that is considered to have occurred even though an actual sale did not take place).
- The securities are sold to a controlled corporation.

TAX LOSS SELLING

A decision to hold or sell a security should be based on your client's expectations for that security. In some circumstances, however, you might also consider tax consequences. For example, your client may own shares whose market price has declined, with no potential for appreciation in the immediate future. By selling the shares, your client can create a capital loss that can be used to reduce capital gains from other securities. Your client can then re-invest the proceeds from the sale in more attractive securities.

When a tax loss sale looks advantageous, without breaching investment principles, you should consider the following factors:

- If your client plans a subsequent repurchase, the sale and repurchase must be carefully timed to avoid a superficial loss.
- For tax purposes, the settlement date (usually two business days after the transaction date) is the date on which transfer of ownership takes place. This is an important tax rule to remember when selling securities near the end of a calendar year. For example, an investor who sells a stock on the last day of December does not incur a capital loss for the taxation year in which the sale occurred. The loss would apply to the next taxation year, because the settlement date would be in early January.

CALCULATING INVESTMENT GAINS AND LOSSES

Can you determine the taxable portion of a capital gain or

loss? Can you apply the capital gain tax calculations in various client scenarios? *Complete the online learning activity to assess your knowledge*.

TAX DEFERRAL AND TAX-FREE PLANS

3 | Describe the different tax deferral and tax-free plans and their uses.

A tax deferral plan allows taxpayers to delay paying tax on income until some point in the future, typically at retirement. At that point, their income, and therefore their marginal tax rates, are usually lower than they were before retirement when contributions were made.

The federal government's main purpose in offering tax deferral plans is to encourage Canadians to save for retirement, although some plans are designed for other purposes. Tax deferral plans typically impose penalties if funds are withdrawn before a certain date.

A tax-free plan, on the other hand, allows income from property to be fully exempted from tax. Funds from such accounts can be withdrawn at any time, for any purpose, without penalty.

In this section, we discuss the most commonly used tax deferral and tax-free plans available to Canadian taxpayers.

REGISTERED PENSION PLANS

A **registered pension plan** is a trust registered with CRA or the appropriate provincial agency. These plans are established by companies to provide pension benefits for their employees when they retire. Both the employer and the employee contributions to the plan are tax-deductible.

Tax-assisted retirement savings plans use a uniform contribution level of 18% of earned income as the amount that can be contributed

towards retirement, to a maximum dollar amount per year, depending on the type of plan. The rule applies regardless of the timing of the contributions and regardless of whether the contributor is the employee or employer.

Individual taxpayers must determine the value of the contributions made to their registered pension plans or of the benefit accruing to them. This amount is called the **pension adjustment** (PA). The PA reduces the amount the taxpayer can contribute to an RRSP. An annual contribution limit is imposed on the combined plans and must not be exceeded. Employers or administrators of pension plans report a plan member's PA on the employee's T4 tax form.

Employers may upgrade employee pension plans within certain limits by making changes to existing plans or by introducing new plans. The employer can thus make additional contributions to the plan. This additional amount is called the **past service pension adjustment** (PSPA). It is calculated as the difference between the old plan's PA and the new plan's adjustment. The PSPA also reduces the amount an employee can contribute to an RRSP.

Investors do not have to contribute the maximum contribution allowed on all plans combined in any given year. Any amount not contributed is recognized as RRSP carry-forward room. Carry-forward provisions allow people to make up deficient contributions in future years.

In general terms, there are two types of registered pension plans: **money purchase plans** (MPP) and **defined benefit plans** (DBP).

Money purchase plans	In an MPP, also known as a **defined contribution plan,** the contributions are set at a fixed amount. The benefit amount at retirement depends on how the contributions are invested over the plan's life. With an MPP, the combined employer or employee contributions cannot exceed the lesser of the following two amounts:

	• 18% of the employee's current year compensation • The MPP contribution limit (which is indexed annually to inflation)
Defined benefit plan	In a DBP, the benefit amount is predetermined based on a formula that considers years of service, income level, and other variables. The contributions are set at a level necessary to fund the pre-set plan benefits. With a DBP, the combined employer and employee contributions are deductible up to the amount recommended by a qualified actuary, so that the plan is adequately funded. The current DBP limits are designed to provide employees with a maximum pension of 2% of pre-retirement earnings per year of service. The current limit is indexed to inflation. The actual benefits an employee receives depends on the terms of the pension plan. In addition, employees' current service contributions are restricted to the lesser of the following two amounts: • 9% of the employee's compensation for the year • $1,000 plus 70% of their PA for the year

REGISTERED RETIREMENT SAVINGS PLANS

An RRSP allows people to defer tax payment on a portion of their income and put it toward their retirement savings. Annual contributions to the plan are tax-deductible up to allowable limits, and income earned in the plan accumulates tax-free as long as it remains there. Any withdrawal from an RRSP is treated as regular income, and thus taxed, in the year the withdrawal is made.

Essentially, there are two types of RRSPs: single vendor plans and self-directed plans.

Single vendor plans	The holder of a single vendor plan invests in one or more guaranteed investment certificates (GIC), segregated pooled funds, or mutual funds. The investments are held in trust under the plan by a particular issuer, bank, insurance company, credit union, or trust company. The holders do not make day-to-day investment decisions. They may pay a trustee fee for this type of plan in addition to any costs incurred for purchasing the investments themselves.
Self-directed plans	Holders of self-directed plans invest funds or contribute certain acceptable assets, such as securities, directly into the plan. The plans are usually administered for a fee by a Canadian financial services company, but the holders make many of the investment decisions. Although there are rules with respect to allowable content, a full range of securities may be held in these plans.

QUALIFIED AND NON-QUALIFIED REGISTERED RETIREMENT SAVINGS PLAN INVESTMENTS

The following investment products are among the more popular in a long list of qualified RRSP investments:

- Money on deposit in a bank or similar institution
- GICs
- Government-guaranteed bonds
- Shares and debt obligations of Canadian public companies

- Shares of foreign public corporations listed on a prescribed stock exchange
- Foreign government bonds with investment grade ratings

However, certain investments do not qualify for investment in an RRSP, including the following non-qualified items:

- Shares and debt obligations of private corporations (unless certain prescribed conditions are met)
- Real estate (other than real estate investment trust units, which are qualified investments)
- Commodity and financial futures contracts
- Property such as artwork, jewellery, rare manuscripts, and stamps

DIVE DEEPER

For more information on qualified and non-qualified RRSP investments, visit the CRA website.

CONTRIBUTIONS TO A REGISTERED RETIREMENT SAVINGS PLAN

There is no limit to the number of RRSPs an individual may own. However, the amount that may be contributed to the RRSPs as a whole, on a per-year basis, is restricted. The maximum annual tax-deductible contributions allowable is the lesser of the following two amounts:

- 18% of the previous year's earned income
- The RRSP dollar limit for the year

However, from the lesser of these two amounts, the following additional calculations are required:

- Deduct the previous year's PA and the current year's PSPA.

- Add the taxpayer's unused RRSP contribution room at the end of the immediately preceding taxation year.

The RRSP limit is indexed to inflation each year. For example, for the 2020 taxation year, the RRSP contribution limit was $27,230. The contributions must be made in the taxation year or within 60 days after the end of that year, to be deductible in that year.

Individuals can carry forward unused contribution limits indefinitely.

EXAMPLE

In 2019, Mario earned $70,000 in income and had a PA of $5,400 reported on his 2019 T4 tax form. He had no PSPA, no unused RRSP contribution room, and no previous RRSP over-contributions. His maximum tax-deductible contribution to an RRSP for the 2020 tax year is calculated as follows:

- The lesser of $12,600 (calculated as 18% of $70,000) and $27,230 (the 2020 RRSP contribution limit) is $12,600.
- From that amount, we subtract the 2019 PA of $5,400 to get $7,200 (calculated as $12,600 – $5,400 = $7,200).

Therefore, Mario can contribute up to $7,200 for the 2020 taxation year.

EARNED INCOME ELIGIBLE FOR REGISTERED RETIREMENT SAVINGS PLAN CONTRIBUTIONS

Earned income for the purpose of RRSP contributions may be simply defined as the total of the following amounts:

- Total employment income (less any union or professional dues)
- Net rental income and net income from self-employment
- Royalties (from a published work or invention) and research grants
- Some alimony or maintenance payments ordered by a court

- Disability payments from the Canada Pension Plan or Quebec Pension Plan
- Supplementary employment insurance benefits, such as top-up payments made by the employer to an employee who is on parental leave

DID YOU KNOW?

For the purpose of an RRSP, Employment Insurance benefits paid by Employment and Social Development Canada are not included in earned income.

OVER-CONTRIBUTIONS

Plan holders whose contributions to RRSPs exceed the amount permitted by legislation may be subject to a penalty tax. Over-contributions of up to $2,000 may be made without penalty. A penalty tax of 1% per month is imposed on any portion of over-contribution that exceeds $2,000.

CONTRIBUTION IN KIND

A **contribution in kind** is made when a plan holder contributes securities they already own to an RRSP. According to CRA, a contribution of this type is considered to be a deemed disposition at the time the contribution is made. Consequently, the capital gain or loss on the day of the deemed disposition must be calculated. To this end, the plan holder must use the fair market value of the securities at the time of contribution as the proceeds from disposition. (The fair market value is the price at which the property would sell on the open market.) Any resulting capital gain is included in income tax for the year of contribution. A capital loss cannot be used in this situation and is deemed to be nil for tax purposes.

EXAMPLE

Two years ago, Shen bought 100 shares of Grow Stock Inc. at a price of $10 per share, for a total value of $1,000. The shares eventually increased in value to $20 per share.

Shen has now decided to contribute the shares to his self-directed RRSP. The fair market value of the shares is now $20 per share. The contribution to the RRSP, which now holds the shares, is the fair market value of the shares—that is, $2,000.

The shares had an accrued capital gain of $1,000 (calculated as $2,000 fair market value – $1,000 original cost = $1,000 gain). Shen must now report this capital gain in his taxes for the year, even though he still owns the shares.

WITHDRAWALS FROM A REGISTERED RETIREMENT SAVINGS PLAN

An RRSP is a trust account designed to benefit the owner at retirement. Withdrawals from an RRSP are therefore subject to a graduated withholding tax. **Withholding tax** refers to an amount of income tax that the financial institution is required to deduct by law from a payment made to the owner. Withholding tax amounts and rates for Quebec and the rest of Canada are shown in Table 24.6.

Table 24.6 | Withholding Tax Amounts and Rates

	All Provinces (Except Quebec)	Quebec
Amount Withdrawn	**Federal Tax**	**Combined (Federal and Quebec Amounts)**
Up to $5,000	10%	20%
$5,001 to $15,000	20%	25%

More than $15,000	30%	30%

Holders must include in their income tax the amount withdrawn in the year of withdrawal. More tax may be payable at year-end, depending on the income level of the taxpayer. Note that funds cannot be withdrawn from an RRSP to be used as collateral for a loan.

DIVE DEEPER

The RRSP plan holder may borrow from the plan without penalty through the Home Buyers' Plan and Lifelong Learning Plan. To avoid a penalty, the borrower must meet specific repayment conditions. For more information about these programs, visit the CRA website.

SPOUSAL REGISTERED RETIREMENT SAVINGS PLANS

A taxpayer may claim a deduction by contributing to a **spousal registered retirement savings plan**, which is an RRSP registered in the name of a spouse or common-law spouse. The plan holder may contribute to the spouse's plan only to the extent that contribution room is available in his or her own plan.

EXAMPLE

Sofia and Nigel are married and contribute to separate RRSPs. Sofia has a maximum contribution limit of $11,500 this year. She can contribute this entire amount either to her own RRSP or to a spousal RRSP for Nigel, or she can split the amount and contribute any percentage to both RRSPs. However, she cannot exceed her contribution limit.

For example, if Sofia contributes $10,000 to her own RRSP and $1,500 to Nigel's spousal RRSP, her $1,500 contribution will not affect Nigel's contribution limit, because his own RRSP is

separate. In other words, Nigel has two plans: one for personal contributions and another (the spousal plan) for contributions made by Sofia on his behalf.

WITHDRAWALS FROM SPOUSAL REGISTERED RETIREMENT SAVINGS PLANS

Withdrawal from a spousal plan can be considered taxable income to the spouse or to the contributor, depending on when the withdrawal is made.

If the contribution was made in the year funds were withdrawn, or within the two calendar years prior to the year of withdrawal, the withdrawal is considered taxable income to the contributor. If the withdrawal is made three years or more after the contribution was made, the withdrawal is considered taxable income in the hands of the spouse. Any interest earned on contributions, no matter when they were made, is taxed in the hands of the spouse.

EXAMPLE

In each of six consecutive years, Davide contributes $1,000 to his wife Elena's spousal RRSP, which he claims as tax deductions. In the seventh year, he makes no contributions, and Elena deregisters the spousal RRSP when its total value is $6,800.

In the current taxation year, Davide reports $2,000 as taxable income withdrawn from Elena's spousal RRSP. This amount is the sum of his contributions over the past three years.

In the same year, Elena reports $4,800 as taxable income withdrawn from the same source. This amount is the sum of Davide's contributions over the first four years ($4,000), plus all earnings ($800) that accumulated in the spousal plan. Table 24.7 outlines the plan's contributions and taxable income.

Table 24.7 | Contributions and Taxable Income for Elena's Spousal RRSP

	Contribution Made by Davide to the Spousal RRSP	Income Taxable in the Hands of Elena or Davide
6 years ago	$1,000	Elena
5 years ago	$1,000	Elena
4 years ago	$1,000	Elena
3 years ago	$1,000	Elena
2 years ago	$1,000	Davide
1 year ago	$1,000	Davide
This year	$0	Nil
Withdrawal	$6,800	

OTHER TYPES OF REGISTERED RETIREMENT SAVINGS PLAN CONTRIBUTIONS

Some pension income can be transferred directly to RRSPs. The following transfers can be contributed without affecting the regular tax-deductible contribution limits:

- Lump sum transfers from registered pension plans and other RRSPs, if transferred directly to the holder's RRSP, are not included in income and no deduction arises.

- Allowances upon retirement for each year of service (commonly known as retiring allowances) are transferable under very specific guidelines.

TERMINATION OF A REGISTERED RETIREMENT SAVINGS PLAN

An RRSP holder may make withdrawals or deregister the plan at any time. However, deregistration is mandatory during the calendar year when the plan holder reaches age 71. In that year, the plan holder has the following options, alone or in combination:

- Withdraw the proceeds as a lump sum payment, which is fully taxable in the year of receipt.
- Use the proceeds to purchase a life **annuity**.
- Use the proceeds to purchase a fixed-term annuity, which provides benefits to a specified age.
- Transfer the proceeds to an RRIF, which provides an annual income.

If the plan holder dies before the RRSP is deregistered, the beneficiary of the plan may transfer the proceeds, free of tax, into his or her own RRSP. The beneficiary can be a surviving spouse or common-law partner. Under certain conditions, the beneficiary can be a financially dependent child or grandchild. If there is no beneficiary, or if the beneficiary does not transfer the proceeds into an RRSP, the proceeds are taxed as the deceased's income in the year of death.

ADVANTAGES OF REGISTERED RETIREMENT SAVINGS PLANS

An RRSP can provide the following advantages:

- The tax-deductible contributions can reduce taxable income during high-earning years.

- Certain types of lump-sum income can be transferred into an RRSP, and thus sheltered from tax.
- Savings for future retirement can earn compound interest on a tax-free basis until they are withdrawn.
- Income taxes can be deferred until later years, when the holder is presumably in a lower tax bracket.
- Spouses can split their retirement income for the following two purposes:
  - Lower taxation of the combined income
  - The opportunity to claim two $2,000 pension tax credits

DISADVANTAGES OF REGISTERED RETIREMENT SAVINGS PLANS

An RRSP can also have some disadvantages, as follows:

- The plan holder pays income tax (not capital gains tax) on the entire amount of a withdrawal, not just on the earnings from the amount invested.
- The plan holder cannot take advantage of the dividend tax credit on eligible shares that are part of an RRSP.
- If the plan holder dies, all payments out of the RRSP to the plan holder's estate are subject to tax as income of the deceased (unless they have been transferred to the beneficiary's RRSP).
- The assets of an RRSP cannot be used as collateral for a loan.

REGISTERED RETIREMENT INCOME FUNDS

An RRIF is a tax deferral vehicle available to RRSP holders who wish to continue to shelter the assets in their plans from tax. When the plan holder transfers the RRSP capital plus accumulated earnings into an RRIF, certain rules apply. In the year after the RRIF is acquired, and in each following year, the plan holder must

withdraw a fraction of the total assets in the RRIF. The plan holder pays income tax on this so-called *minimum annual amount*. The amount is determined by factors prescribed by CRA that are designed to provide benefits to the holder until death. The term of the RRIF may be based on the age of the holder's spouse (if younger), rather the plan holder's own age. In such cases, the term is extended, and the amount of the required withdrawal is reduced.

Before the RRIF holder reaches age 71, the annual minimum amount that must be withdrawn is a percentage based on the person's age. The percentage is calculated as follows: 1 ÷ (90 – age). At age 71, plans use a percentage prescribed by CRA. The RRIF withdrawal factor at age 71 is 5.28% and increases until age 95, when it is set at 20%.

EXAMPLE

Walter transferred his RRSP to an RRIF last year. This year, Walter is 65 and his RRIF has a value of $200,000. Based on the formula for plan holders who are younger than age 71, Walter must withdraw a minimum amount of $8,000 this year from his plan, calculated as 1 ÷ (90 – 65) = 0.04, or 4%.

RRIF owners must adhere to the annual minimum withdrawal amount, but there is no mandatory maximum amount.

As with an RRSP, taxpayers can own more than one RRIF. Also like an RRSP, an RRIF may be self-directed by the holder through instructions to the financial institution holding the plan, or it may be managed. A wide variety of investment vehicles within the Canadian content framework qualify for self-directed plans. They include stocks, bonds, investment certificates, mutual funds, and mortgages.

DEFERRED ANNUITIES

An annuity is an investment contract through which the holder deposits money to be invested in an interest-bearing vehicle. The

annuity returns not only interest but also a portion of the capital originally invested. With immediate annuities, payments to the holder start immediately. With a **deferred annuity**, payments start at a date specified by the investor in the contract. Both types of annuities can be paid for in full at the beginning of the contract. The deferred annuity can also be paid for in monthly instalments, until the date the annuity begins payment.

Contributions to a deferred annuity, unlike those to an RRSP, are not tax deductible; therefore, they do not reduce the current taxable income.

The annuitant is taxed only on the interest element of the annuity payments, not on the capital portion, because the annuity is purchased with after-tax income. This contrasts with annuities bought with money from RRSPs. In this case, the full annuity payment is taxable because the principal cost of the annuity was not taxed when first deposited to the RRSP.

However, some deferred annuities may be registered as RRSPs. Investments in such annuities, within RRSP contribution limits, are deductible from income for tax purposes in the year deposited. The proceeds are fully taxable.

Because the interest earned during the accumulation phase is taxable on an annual basis outside a registered plan, deferred annuities are usually purchased with registered funds.

Should the annuitant die, benefits can be transferred to the annuitant's spouse. Otherwise, the value of any remaining benefits must be included in the deceased's income in the year of death. Under certain conditions, the remaining benefits may be taxed in the hands of a financially dependent child or grandchild, if named as beneficiary. The child or grandchild may be entitled to transfer the benefits received to an eligible annuity, an RRSP, or an RRIF.

Deferred annuities are available only through life insurance companies.

TAX-FREE SAVINGS ACCOUNTS

A TFSA is a savings vehicle that came into existence in 2009. Income earned within a TFSA is not taxed in any way throughout the account holder's lifetime. There are no restrictions on the timing or amount of withdrawals from a TFSA, and the money withdrawn can be used for any purpose. However, there is a dollar limit on the amount that can be contributed to a TFSA in any one year.

BASIC TAX-FREE SAVINGS ACCOUNT RULES

Any resident of Canada who is at least 18 years old, whether employed or not, can open a TFSA. Contributions can come from any source: a tax refund, a bequest, savings, a gift, or earnings from employment or a business.

TAXATION OF A TAX-FREE SAVINGS ACCOUNT

The money contributed to a TFSA is not tax-deductible. No tax is applied on investment income in the year it is earned, nor is it owed on any funds when they are withdrawn. Income earned in a TFSA can be interest, dividends, or capital gains.

QUALIFIED TAX-FREE SAVINGS ACCOUNT INVESTMENTS

A wide variety of products are considered qualified investments for a TFSA. They include GICs, savings accounts, stocks, bonds, or mutual funds.

TAX-FREE SAVINGS ACCOUNT CONTRIBUTIONS

Yearly contribution room in a TFSA consists of the dollar limit for that year, plus any unused contribution room from previous years. Unused contribution room includes room freed up by withdrawals made in any but the current year. Based on information provided by the TFSA issuer, CRA determines the annual contribution room for

each eligible taxpayer. That amount appears on the taxpayer's online CRA profile. Any contribution amount over the limit is taxed at the rate of 1% of the excess contribution every month.

Table 24.8 shows the TFSA annual contribution limit since its inception.

Table 24.8 | Tax-Free Savings Account Annual Contribution Limit 2009–2020

	TFSA Annual Contribution limit
2009 to 2012	$5,000
2013 and 2014	$5,500
2015	$10,000
2016 through 2018	$5,500
2019 through 2020	$6,000
Total	**$69,500**

EXAMPLE

Any Canadian who was 18 years old or older in 2009, who has never contributed to a TFSA, had contribution room of $69,500 in 2020. The same is true of a person the same age who had withdrawn the entire contribution in 2019 or earlier. However, those who turned 18 more recently have less contribution room. For example, a person who turned 18 in 2016 has total contribution room of $28,500 in 2020 (calculated as $5,500 + $5,500 + $5,500 + $6,000 + $6,000).

TAX-FREE SAVINGS ACCOUNT WITHDRAWALS

Withdrawals can be made from a TFSA at any time. There is no limit to how much may be withdrawn, and there is no penalty or tax on withdrawals. Withdrawal amounts can be re-contributed, but there is no obligation to do so. The funds can be replaced in the same calendar year of the withdrawal up to the amount of unused TFSA contribution room available. If there is no room available, they can be replaced in the next calendar year without affecting that year's contribution limit.

EXAMPLE

Emma has unused contribution room of $14,000 in her TFSA, and her husband Liam has no contribution room left.

In January, they each withdraw $10,000 from their respective TFSAs for a down payment on their new house.

Later that year, they both want to put their $10,000 back into their TFSAs. Emma has room to re-contribute the full amount because she had $14,000 in contribution room, prior to her withdrawal.

However, Liam is not allowed to re-contribute this year. He had no contribution room left when he withdrew his $10,000. He must now wait until next year, when contribution room becomes available. It will then consist of the sum of the yearly maximum ($6,000 in 2020) plus any amount withdrawn the year before ($10,000 in this case).

Because the rules allow funds to be withdrawn and re-contributed without penalty, a TFSA is a useful savings vehicle for a variety of expenditures at different life stages. They are suitable for tuition fees, repayment of student loans, a wedding, a holiday, a new car, or a down payment for a house. They can also be used as an emergency fund or simply to increase the value of one's estate.

REGISTERED EDUCATION SAVINGS PLANS

An RESP is a tax-deferred savings plan intended to help pay for the post-secondary education of a beneficiary. The contributions to the plan are not tax-deductible, but tax-deferred income accumulates within the plan. Upon withdrawal, the portion of the payments that were not original capital are taxable in the hands of the beneficiary (or beneficiaries), provided that they are enrolled in a qualifying or specified educational program. The assumption is that, at the time of withdrawal, the beneficiary will be in a lower tax bracket than the contributor, and so withdrawals will be taxed at a lower rate.

The lifetime maximum contribution allowed in an RESP is $50,000 per beneficiary. Any of this amount can be contributed in a single calendar year for each beneficiary. Contributions can be made for up to 31 years, but the plan must be collapsed within 35 years of its starting date.

There are two types of RESPs: pooled (or group) plans and self-directed plans.

Pooled RESPs	As their name suggests, pooled plans allow various subscribers to make contributions for their beneficiaries. The pooled funds are managed, usually conservatively, by the plan administrators. Annual contributions are generally pre-set. The administrator determines the amount paid out to beneficiaries.
Self-directed RESPs	Self-directed plans are administered by various institutions including banks, mutual fund companies, and investment brokers. Contributions tend to be more flexible, and contributors can participate in both the investment and distribution decisions.

More than one beneficiary can be named in any particular plan, in which case they are called family plans. These RESPs are often used by families with more than one child. If one of the named beneficiaries does not pursue post-secondary education, all of the income can be directed to the beneficiaries who do attend.

The contributor (but not the beneficiary) can withdraw the income from an RESP in any of the following two circumstances:

- The plan has been in existence more than 10 years and none of the named beneficiaries has started qualified post-secondary programs by age 21, or
- All of the named beneficiaries have died.

If the beneficiaries do not attend qualifying programs, contributors are allowed to transfer a maximum of $50,000 of RESP income to their RRSPs (providing that there is sufficient contribution room). No taxes are charged on contributions when they are withdrawn by the contributor. However, revenues earned on the contributions are taxed at the contributor's regular income tax level, plus an additional penalty tax of 20%.

If the contributor (as opposed to the beneficiary) starts to withdraw income from the RESP, the plan must be terminated by the end of February of the following year.

CANADA EDUCATION SAVINGS GRANTS

A **Canada Education Savings Grant** (CESG) provides further incentive to invest in RESPs. Under this program, the federal government makes a matching grant of 20% of the first $2,500 contributed each year to the RESP of a child under 18. Depending on family income, an additional CESG is available over and above the basic CESG amount. This grant is worth between $500 and $600 per year, depending on family income. It is forwarded directly to the RESP firm and does not count towards the contributor's lifetime contribution limit. The lifetime grant amount a beneficiary can receive is $7,200. However, The CESG must be repaid if the child does not attend a qualifying post-secondary institution.

Table 24.9 shows the contribution and matching grant amounts of the CESG program.

Table 24.9 | Canada Education Savings Grant Contributions

	Contribution	Basic CESG		Total CESG
		%	$	
All families	$2,500	20%	$500	$500
	On the first:	**Additional CESG**		**Total CESG**
Families earning*:		%	$	
Up to $48,535	$500	20%	$100	$600
More than $48,535 and less than $97,069	$500	10%	$50	$550

* *Note:* These figures apply for the calendar year 2020.

Source: Adapted from the Canada Revenue Agency

EXAMPLE

A family earning under $48,535 that contributes $2,500 per beneficiary in a year will receive a CESG of $600 a year per beneficiary. This amount represents 20% of the $2,500 contribution from the basic CESG and an additional 20% on the first $500 invested in the program (calculated as $2,500 × 20% + $500 × 20%).

POOLED REGISTERED PENSION PLANS

A **pooled registered pension plan** (PRPP) is a type of retirement savings plan offered by the federal government. The plan is designed to address the gap in employer pension plan coverage by providing Canadians with an accessible, large-scale, low-cost

pension plan. PRPPs hold assets pooled together from multiple participating employers. They allow workers to take advantage of lower investment management costs that result from membership in a large pooled pension plan. PRPPs are administered by eligible financial institutions such as banks and insurance companies. This design reduces the risk and cost that employers would normally bear when offering a retirement plan for employees.

Participation in a PRPP is open to the following people:

- Those employed or self-employed in the Northwest Territories, Nunavut, or Yukon
- Those who work in a federally regulated business or industry for an employer who chooses to participate in a PRPP
- Those who live in a province that has the required provincial standards legislation in place

A PRPP can be designed to permit members to make their own investment decisions, or to select from investment options provided by the plan administrator. Options include varying levels of risk and reward based on investor profiles.

Much like an RRSP, contributions to a PRPP are limited to available contribution room based on earned income, and contributions are tax deductible.

JOHN AND BETTY'S RRSP DECISIONS

Can you help John and Betty with their understanding of registered investments? *Complete the online learning activity to assess your knowledge.*

TAX DEFERRAL PLANS

Can you describe the various tax-deferral plans and the advantages of using such plans? *Complete the online*

learning activity to assess your knowledge.

TAX PLANNING STRATEGIES

4 | Identify basic tax planning strategies and strategies for minimizing tax liability.

Proper tax planning should be a part of every investor's overall financial strategy. The minimization of tax, however, must not become the sole objective, nor can it be allowed to overwhelm the other elements of proper financial management. The important factor is after-tax income or return. Choosing an investment based solely on a low tax status is not normally the best approach. Given the choice of two investments, the one that is more heavily taxed might still provide a higher after-tax rate of return than the other.

Also, the time and effort you spend on tax planning must not outweigh the rewards you reap. Tax planning is an ongoing process with many matters being addressed throughout the year. The best tax advantages are usually gained by planning early and often and allowing reasonable time for the plan to produce the desired results.

Of course, tax evasion is against the law. However, taxes can be minimized by one or more of the following legitimate means:

- Make full use of allowable deductions.
- Convert non-deductible expenses into tax-deductible expenditures.
- Postpone the receipt of income.
- Split income with other family members (under certain conditions).
- Select investments that provide a better after-tax rate of return.

Various general strategies to reduce taxes are discussed below. However, you should not consider these strategies as specific

recommendations. Taxes play a significant role in your clients' overall financial plans and can greatly affect the choice of investments. You should therefore make sure to remain up to date with the ever-changing rules and interpretations.

SPLITTING INCOME

Income splitting is a tax savings strategy that involves transferring income in a higher tax bracket to a spouse, child, or parent in a lower tax bracket. Doing so allows the same income to be taxed at a lower rate. However, changes to tax laws have made it more difficult to split income in this manner.

Spousal RRSPs are an effective and legitimate vehicle within which to split income. Other vehicles include family trusts, partnerships, small business corporations, and investment holding companies. Because there are many technicalities involved in establishing these structures, professional advice should be sought. Income splitting techniques are covered in more advanced courses offered by the Canadian Securities Institute, such as the Wealth Management Essentials course.

TRANSFERRING INCOME

Transferring income to family members can trigger what are called **attribution rules**. If property or income-producing assets are transferred from the taxpayer to other family members, the tax consequences may be passed back to the taxpayer. One exception to these rules occurs in the event of a marriage breakdown. If the married couple is living apart, the attribution rules relating to income and capital gains do not apply.

Both income and capital gains from property transferred from one spouse to another are attributed to the transferor unless the transfer is made for fair market value. If the transfer is made by way of a loan, the loan must bear interest. The rate of interest cannot be less than the prescribed rates published by CRA. In addition, the interest

must actually be paid within 30 days after the particular year to which it relates.

PAYING EXPENSES

When both spouses have earnings, non-deductible expenses are not always paid in a tax effective manner. Instead of using funds for investment purposes, the higher-income spouse should first pay all family expenses, while the lower-income spouse should invest as much income as practical. This practice allows the lower-income spouse to maintain a larger investment portfolio for earning income. Presumably, this income will also be taxed at a lower rate than if it were earned by the other spouse.

MAKING LOANS

The attribution rules do not apply on money that is loaned when interest is charged at a rate prescribed by CRA and paid within 30 days after the year-end. When an investment can be expected to generate earnings in excess of the prescribed rate, it is often worthwhile for the higher-income family member to loan funds to a lower-income family member. The person with the lower income then uses the loan to purchase the investment. Therefore, the excess of the investment earnings, over the interest charged, is effectively transferred to the person in the lower tax bracket. Of course, the interest charged must be added to the income of the higher income family member.

DISCHARGING DEBTS

The attribution rules do not apply if a taxpayer directly discharges the debt of his or her spouse, or a designated minor or other non-arm’s length individual. As a tax-saving strategy, the person with the lower income can thus borrow money from a third party, which the person with the higher income repays.

DID YOU KNOW?

A non-arm's length transaction is a transaction between two parties who are related to each other. In an arm's length transaction, the two parties are not related.

EXAMPLE

Jonah, a house painter, borrows $20,000 to purchase a truck. His wife Wilma, a university professor, assumes the debt and pays it off from her income. Jonah, who no longer has to make the loan payments, can use this freed up income to invest. And, because his income is lower, his investment income will be taxed at a lower rate than Wilma's would be.

CANADA AND QUEBEC PENSION PLAN SHARING

The Canada Pension Plan and the Quebec Pension Plan legislations permit spouses to share their pension benefits. If both parties agree, the portion of the retirement pension being received can be split according to the length of time the couple lived together, and the amount they contributed during that time. If both parties are eligible for a pension and want to share benefits, then both pensions must be shared.

GIFTING

A taxpayer may choose to transfer investments to adult children or parents by way of a gift. Such a gift results in a deemed disposition at fair market value by the person who made the gift. Before making or recommending a gift of investments, it is important to consider the effect of any resulting capital gains or losses in the year the gift is made.

CASE SCENARIO

Can you answer Eisha's RRSP questions? *Complete the online learning activity to assess your knowledge.*

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, we discussed the following key aspects of Canadian taxation:

- Canada taxes the world income of its residents and the Canadian-source income of non-residents. All taxpayers must calculate their taxable income annually based on four general types of income: employment income, business income, capital property income, and capital gains and losses. Taxpayers' marginal tax rate (the rate paid on each additional dollar earned) is based on their combined provincial and federal tax rate.
- A capital gain arises from selling a capital property for more than the adjusted cost base plus any costs of disposing of the property. Disposition of worthless securities results in an allowable capital loss; however, superficial losses are not eligible as capital losses, and must be deferred.
- Tax deferral plans allow taxpayers to delay paying tax on income until some point in the future, typically at retirement. A tax-free plan such as a TFSA allows income from property, up to a limit, to be fully exempted from tax. Contributions to tax deferral plans

are limited by legislation and are generally based on taxable income. Tax deferral plans include the following types:

  - RRSPs, in which contributions are tax deductible up to allowable limits, and income accumulates tax deferred while it remains in the plan
  - RPPs, which are established by companies to provide pension benefits for their employees when they retire
  - RESPs, which pay for the post-secondary education of a beneficiary
  - RRIFs, from which the holder must make minimum, annual taxable withdrawals based on a formula specified by the government
  - PRPPs, which are designed to fill the gap in employer-sponsored pension plans

- Income splitting involves transferring income from a highly taxed family member to a spouse, child, or parent who is in a lower tax bracket. Attribution rules may be triggered. Other tax-planning strategies include setting up spousal RRSPs, having the higher-taxed spouse claim tax-deductible investment expenses, making loans to family members, sharing government pension benefits, making gifts to children or parents.

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 24 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 24 FAQs.

Fee-Based Accounts 25

CHAPTER OVERVIEW

In this chapter, you will learn about the various types of fee-based accounts, both managed and unmanaged.

LEARNING OBJECTIVES	CONTENT AREAS
1 | Describe the advantages and disadvantages of fee-based accounts.	**Overview of Fee-Based Accounts**
2 | Compare the features, advantages, and disadvantages of the various types of managed fee-based accounts.	**Managed Fee-based Accounts**
3 | Describe the various types of non-managed fee-based accounts.	**Non-Managed Fee-based Accounts**

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

discretionary accounts

exchange-traded fund wraps

fee-based accounts

household account

managed accounts

multi-manager accounts

mutual fund wraps

overlay manager

private family office

robo-advisor

separately managed accounts

unified managed account

INTRODUCTION

Participants in the securities industry have witnessed an ongoing shift away from the traditional advisor/client relationship model toward a fee-based account model. With the traditional model, the advisor is compensated with commissions. The fee-based model bundles various services and charges a fee based on the client's assets under management. Typically, these accounts are owned by high-net-worth clients (also called affluent clients).

This chapter focuses on the various types of fee-based accounts available in the marketplace, both managed and unmanaged. The products discussed in this chapter clearly show how the compensation model continues to evolve, and how the advisor's traditional role continues to change dramatically.

OVERVIEW OF FEE-BASED ACCOUNTS

1 | Describe the advantages and disadvantages of fee-based accounts.

The past decade has seen a tremendous increase in the types and availability of **fee-based accounts**. Growth in this area has significantly outpaced the growth of traditional, commission-based accounts. This shift in the advisor/client relationship model arose out of several key demands of high-net-worth clients:

More services	High-net-worth clients need more from their advisors than simple stock and bond picking, as provided under the traditional commission-based model. Along with trading strategies, they require advice on risk management, estate planning, debt management, insurance, and retirement planning.
Payment tied to performance	Market surveys show that high-net-worth clients want a portion of the advisor's fee tied to assets under management, with fees varying depending on the performance of the portfolio. This approach puts both the client and the advisor on the same side and erases the potential for conflict of interest inherent in commission-based selling.
Greater transparency	High-net-worth clients appreciate the clear disclosure that comes with a fee-based account.

	They pay fees directly, and the amounts appear on their regular account statements.
Greater trust	Under a commission-based structure, the client might wonder whether the advisor is suggesting investments because the product carries a higher commission. In a fee-based relationship, clients can be confident that recommendations are based on their best interests.

ADVANTAGES AND DISADVANTAGES OF FEE-BASED ACCOUNTS

Fee-based accounts enable advisors to provide broader services to clients, including financial planning and wealth management services. They are also able to continue recommending securities and third-party mutual funds, without regard for the commissions those products normally carry. Fee-based accounts thus allow access to more investments and greater diversification opportunities.

However, not everyone in the industry feels that the move to fee-based brokerage accounts is entirely positive. Opponents of fee-based brokerage accounts cite various disadvantages.

Higher potential cost	If clients buy and hold their investments, they may not fully benefit from a fee-based account, given that trades are part of the service package.
Limited number of trades	Some fee-based accounts have a limit on the number of trades allowed in the account. The maximum depends on the firm, and on the size and the type of account.
Potential for neglect	The continuing stream of income, regardless of time and effort put into the account, can lead an advisor to neglect the account. However, most advisors avoid this

	type of behaviour, as it would likely cause them to lose the client eventually.
Extra fees	In some limited circumstances, the client can be charged for extra costs, especially in programs where costs are not all-inclusive. Investments with a trailer fee (such as structured products and mutual funds) have fees or commissions buried into their price, so clients pay an additional fee on top of the fee charged on the account. However, recent regulatory oversight and enforcement of disclosure requirements has effectively mitigated this practice.

The two broad categories of fee-based accounts are **managed accounts** and non-managed accounts.

MANAGED FEE-BASED ACCOUNTS

2 | Compare the features, advantages, and disadvantages of the various types of managed fee-based accounts.

Managed accounts have become a significant part of the investment services available in the marketplace. Clients elect to have licensed portfolio managers make investment decisions at their discretion and execute them on the client's behalf. The portfolio manager uses his or her particular expertise to make suitable investment decisions for the client.

Managed accounts can be solicited by investment dealers and typically have various features in common.

Professional investment management	The manager is a licensed portfolio manager with trading authority over the account.

Assets within the account held exclusively for the client	The client has direct ownership of the investments within the account. The assets are not pooled, as they are with a mutual fund, and the investment management is provided to the client—not to the trust.
A package of services	At the basic level, a package may include the following services: trading; rebalancing; custody of the assets; operations to support the client, advisors, and portfolio managers; and specialized reporting for clients.
Services beyond investment management	Beyond investment management, services may include wealth management and financial planning.
An investment policy statement	The investment policy statement allows the client to specifically outline how the assets within the accounts are to be managed, and to name any special considerations.
Greater transparency	Disclosure of investment management activities include supplemental quarterly reports and a year-end summary. The summary often provides market and economic commentary from the portfolio managers, performance charts, tables and portfolio composition, respective gains and losses per security, and a fee-based summary.

Additionally, these types of accounts include a bundled fee to cover a package of related services. However, fees paid for managed accounts differ in the following ways from the management expense ratio that is commonly charged on mutual funds:

- Fees are tax deductible for non-registered accounts.

- Depending on the client's assets, the fees tend to be lower than on mutual funds.
- Unlike standardized fees on mutual funds, the fee on managed accounts is negotiable. In most cases, it is based on the size of the client's assets and the required services.
- All fees on a managed account are transparent; they are clearly reported and charged separately to the client.

DID YOU KNOW?

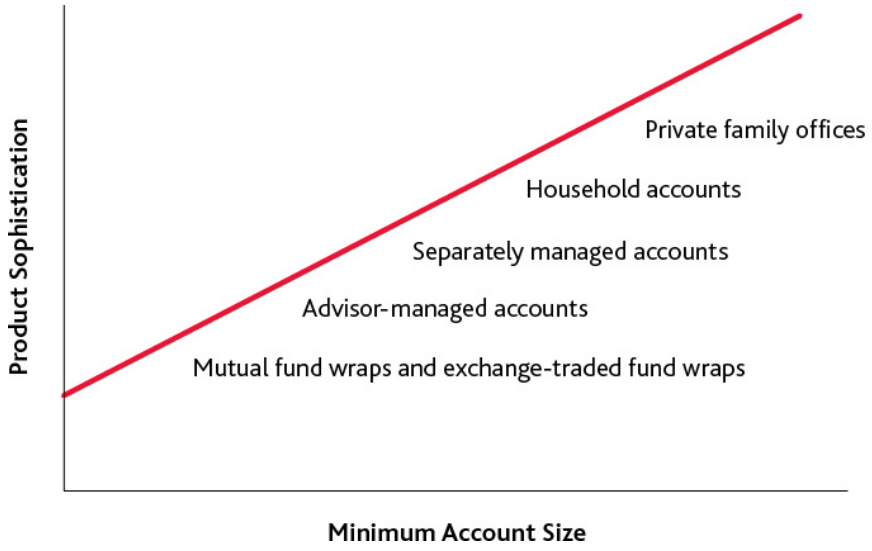
A **discretionary account** is one where the client chooses to give discretionary authority on a temporary basis.

Unlike a managed account, discretionary accounts must not be solicited. Clients must clearly indicate their reasons for requesting the discretion, such as in the case of illness or temporary absence from the country. Discretionary authority is valid for a maximum term of twelve months.

A discretionary account must be specifically authorized, approved, and accepted as such, in writing, by a designated supervisor. Both the client and the dealer member must sign a discretionary account agreement, which includes any restrictions to the trading authorization.

Within the category of managed accounts, clients have several alternatives, depending on their desired level of customization and amount of investable assets. Figure 25.1 shows the various types of services in ascending order of product sophistication.

Figure 25.1 | Types of Fee-Based Accounts



EXCHANGE-TRADED FUND WRAPS AND MUTUAL FUND WRAPS

The most basic services offered within managed accounts are **exchange-traded fund** (ETF) **wraps** and **mutual fund wraps**.

EXCHANGE-TRADED FUND WRAPS

ETF wraps are often directed by a single portfolio manager who creates the model for a specific managed account. The managed account holds a basket of ETFs for security selection. The underlying ETFs tend to be passive in the investment management. The added value comes from the asset allocation and the geographic, currency, and sector selection. This extra service can follow either a passive or active approach.

Passive approach	The portfolio manager determines the client's risk tolerance, then sets the optimal asset allocation and establishes the portfolio, with ongoing rebalancing back to the set asset mix.
Active	The portfolio manager again determines the client's

approach	long-term risk tolerance, but then applies a short-term tactical approach by actively overweighting or underweighting the sector and the client's asset allocation. The manager has greater discretion in rebalancing the portfolio to take advantage of changing market conditions.

The active management approach has the following key advantages:

- Client fees are relatively low because the lower cost of the underlying investment management is low, compared to other types of managed accounts.
- The portfolio manager provides expert evaluation of ETFs to determine which ones are best able to fulfil the investment mandate. This service is done directly within the client's account.
- A selection of standardized asset allocation models is available to meet the many needs of investors.
- There is greater ability to hedge currency exposure within the portfolio, given the choice of hedged or unhedged ETFs.
- Because the portfolio manager researches and trades securities daily, the advisor can focus more time on financial planning, estate management, and other wealth management services.
- The firm normally provides its advisors with marketing support.

MUTUAL FUND WRAPS

Mutual fund wraps are established with a selection of individual funds managed within a client's account or accounts. Mutual fund wraps differ from funds of funds because clients hold the actual funds within their account, whereas a fund of funds simply invests in other funds and investors hold units of the fund of funds. In most cases, a separate account is established for the client and the selected funds are held inside that dedicated account.

The composition and weighting of individual funds within the account are directed by an **overlay manager**. The investment management of the underlying funds is conducted by sub-advisors. Overlay managers play an active role by rebalancing the client's holdings back to their target asset mix, or by adding and removing funds based on the quality of the investment management or their views on the market.

DID YOU KNOW?

The overlay manager is the portfolio manager of record. In other words, the overlay manager is the person or group responsible for investing the assets, implementing the investment strategy, and carrying out the day-to-day management of the portfolio.

Mutual fund wraps have the following key advantages:

- A coordinated investment account optimized on the asset allocation and selection of managers.
- A selection of standardized asset allocation models to meet the many needs of investors.
- The ability to hedge currency exposure within the portfolio, given the choice of hedged or unhedged mutual funds.
- Ongoing oversight management of the funds.

ADVISOR-MANAGED ACCOUNTS

As with other types of managed accounts, advisor-managed accounts give discretion to another person to make investment decisions on the client's behalf. The advisor who services this type of account also manages its investments and must be licensed as a portfolio manager. The actual securities are held within the client's account in amounts that follow the advisor's portfolio model.

The portfolios offered tend to focus on the advisor's area of expertise and take advantage of the advisor's skills in either fundamental or technical analysis. In each case, the advisor determines the client's risk tolerance and establishes a portfolio that aligns with a suitable model. The model portfolios are often guided by the firm's security selections and portfolio construction.

An advisor-managed program offers the following key advantages:

- The cost may be lower because no other parties are involved with the account.
- The advisor understands the specific client's needs and applies a tailored investment management approach.
- Some programs permit client accounts to exclude certain securities.
- In some cases, the program allows for tax loss selling.

DID YOU KNOW?

Tax loss selling involves a temporary deviation from the model portfolio. The purpose of tax loss selling is to realize a capital loss to offset some of the gain for the benefit of a specific client.

Advisors as portfolio managers use two types of programs to service their clients.

Model-based account management	This refers to the ongoing programs under which investment advisors manage their clients' portfolios. These programs tend to use model portfolios, which are applied to similar clients but tailored to the needs of the specific client. With many models to select from, some customization for unique needs can be applied.

Non-model-based account management	These programs are typically used temporarily when clients are unwilling or unable to tend to their own accounts. They are used, for example, when clients are ill or absent from the country. Given the short-term nature of the programs, the advisors tend not to use a model portfolio. Instead, they simply monitor an existing account of securities.

SEPARATELY MANAGED ACCOUNTS

As investors' assets grow, so do their choices in investment programs. Depending on their needs, clients can opt for an external portfolio manager to have control over the investments held directly in their individual accounts. Instead of being held in a mutual fund or a pooled account, assets are held separately, which is why these accounts are often called **separately managed accounts** (SMA).

With this type of account, the external portfolio manager (called the sub-advisor) controls the holdings based on a portfolio model.

As the sub-advisor makes investment decisions, the actual securities are debited and credited to the client's dedicated account within the firm. Because the client holds the underlying securities, the portfolio models can be set to exclude investments or sectors in which the client prefers not to invest. In addition, each investor's distinctive tax situation can be taken into consideration. Even though the sub-advisors manage hundreds of client accounts, their clients are able to tailor their holdings because they are held separate from all other clients' investments.

SMAs have the following key advantages:

- They provide access to dedicated and sophisticated external portfolio managers.
- Supplemental reports collectively report on the performance of each separate account. The performance is specific to the investor and to other factors in the holdings. Reports show when

the holdings are purchased and sold, and when specific securities are deposited to and withdrawn from the accounts.

- The client directly holds the securities in an SMA, whereas assets in a fund run by external portfolio managers are pooled. This key difference means that the needs and wants of investors with SMAs can be catered to separately.

DID YOU KNOW?

Different investors have different views on the markets, with some wanting to hold and others wanting to sell. With SMAs, clients who want to hold avoid the risk of being forced to sell positions to meet the cash needs of other investors. Moreover, they avoid the related potential capital gain distributions for tax purposes.

An SMA with an external portfolio manager can be either a single-mandate or a multi-mandate managed account, also called a **unified managed account** (UMA).

SINGLE-MANDATE SEPARATELY MANAGED ACCOUNTS

Single-mandate managed accounts are directed by a single portfolio manager (or team of managers). These sub-advisors focus considerable time and attention on selecting securities, the sectors to invest in, and the optimal asset allocation. They often maintain a model portfolio and then execute bulk purchases and sales based on their investment decisions. They then allocate the sales and purchases to their respective clients' accounts.

Some programs permit clients to exclude securities they do not wish to invest in for ethical, social, or other reasons. Clients also benefit from the manager's use of tax loss selling.

The key advantage of these accounts is that they can offer clients access to dedicated and sophisticated institutional portfolio

managers while maintaining a relationship with their advisor.

The challenge occurs when two mandates are required to meet a client's investment objective. In such cases, each objective would require a separate account to house that portfolio manager's model. In addition, investors cannot co-mingle non-managed stocks or bonds in a managed account that is dedicated to a specific mandate.

MULTI-MANDATE MANAGED ACCOUNTS

With multi-mandate managed accounts, the overlay manager consolidates a client's investments within a collection of dedicated accounts (the UMA) and provides oversight. The UMA reflects the optimal asset mix that best mitigates risk, while helping to attain the client's overall investment objectives. It offers clients and their advisors more choice in terms of products and services in one account. These accounts provide access to a dedicated group of sophisticated institutional portfolio managers, who are considered sub-advisors to the overlay manager. These managers often align clients with two or more portfolio models, with each model representing a component of the client's greater diversified holdings.

DID YOU KNOW?

Account holdings can be subdivided into different portions known as sleeves. Each sleeve may hold securities to which different management strategies are applied.

ROLE OF THE OVERLAY MANAGER IN A MULTI-MANDATE MANAGED ACCOUNT

Overlay managers play the following key roles in the management of their clients' portfolios:

- They conduct ongoing due diligence reviews of each of the underlying portfolio managers (the sub-advisors). As managers

of managers, they set the evaluation metrics for ongoing evaluations, evaluate new managers, and remove poorly performing managers from the program.

- They set the overall optimal asset mix and the proportions for each sub-advisor, which allows the advisors to maximize performance and mitigate risk for each client. Clients can also customize the investment portfolio to suit their needs as they move through the various life stages. The customized asset mix is then administered by the overlay manager.
- They conduct ongoing monitoring of the client's investments and the composition of the overall investment portfolio.
- They coordinate the efforts of the sub-advisors and sometimes conduct rebalancing.
- They provide market insight to advisors and coordinate the views of the sub-advisors. They also reflect on the broader picture of the markets and convey this knowledge to the advisors and their clients.

DID YOU KNOW?

The professional oversight of **multi-manager accounts** provides high-net-worth clients with greater confidence in their investment programs. They know that the overlay manager is continually monitoring the sub-advisors to ensure that their money management is on track with the stated objectives.

Overlay managers do not work in a referral position; they work in a partnership with the advisor—a partnership in which the advisor retains the client's assets. This arrangement provides a superior offering for the client because it incorporates an existing relationship with a trusted advisor.

The primary advantage of multi-manager accounts is the direct access clients have to a dedicated and sophisticated group of industry professionals. For clients, this access provides a coordinated approach to managing their assets in one account. More importantly, however, it allows advisors to change their business model. They can redirect time previously spent on research and security selection to focus on the complex wealth management needs of their high-net-worth clients. The fees for multi-manager accounts cover the underlying investment management, the oversight functions of the overlay manager, custody, and the various aspects of wealth management and financial planning.

HOUSEHOLD ACCOUNTS

The **household account** is a concept that is still being defined. However, many industry experts are working toward providing this holistic level of service to high-net-worth clients.

Household accounts are a type of separately managed account that involve the coordination of holdings across a family or household. In this approach, one overall portfolio model is used to coordinate investment management within and across accounts for the family or the household. This application can provide better tax management and inclusion of all of the holdings, regardless of size or format of the account. In a Canadian setting, the ideal account would take a balanced portfolio model and allocate the fixed-income position within a registered retirement savings plan, the equities in a Canadian cash account, and the international equities in a U.S. cash account.

PRIVATE FAMILY OFFICE

A **private family office** is an extension of the advisor-managed approach. In this approach, instead of having only one advisor, a team of professionals handles all of a high-net-worth client's financial affairs within one central location. The client's portfolio may include

investments, trust and estates, philanthropy, corporate planning, tax planning and filing, legal work, and basic account servicing, including bill paying and other services. The investment management is unique for each family. This account is managed by institutional portfolio managers, similar to the managing of pensions. Generally, access to a family office is for clients with more than $50 million in an account. Typically, this service is conducted for a fee on the assets under management.

The private family office has two key advantages:

- High-net-worth clients are completely free to concentrate on matters other than their financial affairs.
- Given that all professionals are concentrated in one service, they are aligned with the recommendations on the client's investments, taxes, legal matters, estate, and corporate needs.

DOCUMENTATION FOR MANAGED ACCOUNTS

Managed accounts grant discretionary authority on an ongoing basis; in other words, it is a permanent, rather than a temporary, arrangement. Dealer members must be approved by IIROC to handle managed accounts and must be compliant with all the requirements detailed in IIROC rules.

In order for the dealer member to approve a managed account, the client must sign a managed account agreement, and the dealer member's designated supervisor must accept it. The managed account agreement must also clearly indicate the client's investment objectives for this account. Furthermore, the client must be provided with a copy of the dealer member's procedures to ensure the fair allocation of investment opportunities among managed accounts.

Each managed account must be reviewed on a quarterly basis by a designated supervisor to ensure that the investment objectives of the client are diligently pursued. Moreover, the managed account must

be conducted in accordance with the applicable regulations. Reviews may be conducted on an aggregate basis, where decisions are made centrally and applied across a number of accounts.

For discretionary and managed accounts, both the client and dealer may terminate the account agreement as long as the request is submitted in writing. Clients may terminate the agreement at any time, but if the dealer member is terminating the agreement, the client must be given at least 30 days' notice.

It is important to note that regulation and oversight of discretionary and managed accounts is constantly evolving; you must therefore stay informed of all changes.

In managed accounts, discretionary authority may not be exercised by a member, or by any person on a member's behalf, unless the person responsible for the management of the account is designated and approved as a portfolio manager.

NON-MANAGED FEE-BASED ACCOUNTS

3 | Describe the various types of non-managed fee-based accounts.

Non-managed fee-based accounts are either full-service brokerage accounts or self-directed accounts.

FULL-SERVICE BROKERAGE ACCOUNTS

Fees for full-service brokerage accounts provide clients with financial planning services, combined with a fixed or unlimited number of trades. The services are bundled under a fee charged on the client's assets under management. Fees range from 1.0% to 2.5% of the assets under management. In most cases, the annual fee is paid quarterly out of cash held in the account. The amount depends on the following criteria:

- Dollar size of account
- Estimated number of trades
- Type of investment (e.g., equity, bond, money market, mutual fund, or guaranteed investment certificate)
- Ancillary services provided (e.g., financial planning, estate planning, and wealth management)

Some investment dealers offer two levels of fee-based accounts. The higher level typically offers more, or unlimited, free trading.

SELF-DIRECTED BROKERAGE ACCOUNTS

In recent years, self-directed brokerage firms have begun to offer fee-based accounts. In the past, these firms provided online trading at lower cost for accounts of all sizes. The new fee-based model builds on this base by servicing lower minimum account sizes, often at a lower cost. The firms are able to provide this service by changing the advisor's role from the traditional one-to-one approach to a one-to-many, technology-based model. This area of service is new and evolving. Not all self-directed brokerage firms currently offer these services, and the programs they do offer differ from firm to firm. Generally, their fee-based services fall into the following two categories:

- Direct security and asset mix guidance
- Robo-advisory services

DIRECT GUIDANCE

Investors using the direct guidance model are provided with the following bundled services:

- Unlimited trading
- Tools to build and monitor an asset allocation

- Investment recommendations, alerts, and reminders provided by a research program or provider

This service is targeted at investors who want advice from an investment advisor but do not require financial planning, wealth management, or other full-service offerings. This approach is more expensive than traditional self-directed investment, given the added level of support. However, it still provides a cost efficient alternative, because trading and account costs are included in the package.

ROBO-ADVISORY SERVICES

The term **robo-advisor** describes a recent investment model. Currently, this one-to-many service builds on the concept of ETF wraps, using those securities to build an asset mix. The key difference is that the role of the advisor is done remotely and mostly online.

Robo-advisory services have several advantages and disadvantages, as described below.

Advantages	• They cost less than traditional managed accounts because support and advice are provided on a one-to-many basis. In addition, the services use low-cost ETFs to build an asset mix. • Many investors (particularly young investors) prefer online services over the traditional relationship-based model. • Minimum account sizes are lower.
Disadvantages	• The one-to-many service approach may not appeal to high-net-worth investors. • Financial planning and wealth management services are often supported by technology that is in the early stages of development.

- Local service is limited; service for the most part is provided online.
- Because the service is new and evolving, it has not gone through a major market correction.

FEE-BASED ACCOUNTS

Can you differentiate between the various types of fee-based accounts that have emerged over the past several years? *Complete the online learning activity to assess your knowledge*.

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, we discussed the following key aspects of fee-based accounts:

- The fee-based account model bundles various services and charges a fee based on the client's assets under management. Typically, these accounts are owned by high-net-worth clients. The two broad categories of fee-based accounts are managed accounts and non-managed accounts.
- Managed fee-based accounts offer professional portfolio management services, whereby the manager has discretionary authority over the account. These accounts typically charge a

bundled fee to cover the various services included in the package of related services. Within the category of managed accounts, clients have the following alternatives, depending on their desired level of customization and amount of investable assets:

- Mutual fund and ETF wraps are the most basic services offered within managed accounts. The underlying ETFs in an ETF wrap tend to be passive in the investment management. The added value comes from the asset allocation and the geographic, currency, and sector selection. Mutual fund wraps are established with a selection of individual funds managed within a client's account. In most cases, a separate account is established for the client and the selected funds are held inside that dedicated account.
- With advisor-managed accounts, the advisor is a licensed portfolio manager who manages the client's investments. The actual securities are held within the client's account in amounts that follow the advisor's portfolio model. The portfolios offered tend to focus on the advisor's area of expertise.
- With SMAs, an external portfolio manager (called the sub-advisor) has control over the client's investments, which are held directly in their individual accounts, rather than in pooled accounts. Even though the sub-advisors manage hundreds of client accounts, their clients are able to tailor their holdings because they are held separate from all other clients' investments.
- Household accounts involve the coordination of holdings across a high-net-worth family or household.
- With private family office accounts, a team of professionals handles all of the high-net-worth client's financial affairs within one central location.

- Among other regulatory requirements for managed accounts, discretionary authority must be given by the client in writing and accepted in writing by the designated supervisor.
- Non-managed fee-based accounts are either full-service brokerage accounts or self-directed accounts. Fees for full-service brokerage accounts provide clients with financial planning services combined with a fixed or unlimited number of trades.
- Self-directed fee-based services fall into two categories: direct guidance and robo-advisory services. Direct guidance is targeted at investors who want advice from an investment advisor but do not require financial planning, wealth management, or other full-service offerings. Robo-advisors provide a one-to-many service that builds on the concept of ETF wraps, using those securities to build an asset mix. The role of the advisor is done remotely and mostly online.

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 25 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 25 FAQs.

Working with the Retail Client 26

CHAPTER OVERVIEW

In this chapter, you will learn to take a structured approach to financial planning with retail clients. You will learn the steps in a financial planning process that is based on the client's stage in the life cycle. You will also learn about the ethical practices and standards of conduct that should form the basis of all your dealings with retail clients.

LEARNING OBJECTIVES	CONTENT AREAS
1 | Summarize the steps in the financial planning process.	**The Financial Planning Approach**
2 | Describe how the life cycle hypothesis is used to understand a client's investment needs.	**The Life Cycle Hypothesis**
3 | Summarize the roles of ethical decision-making and the standards of conduct in building trust and confidence within the securities industry.	**Ethics and the Advisor's Standards of Conduct**

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

duty of care

ethical decision-making

ethics

Know Your Client

life cycle hypothesis

suitability

INTRODUCTION

Financial planning and wealth management services take a broad approach to investing by focusing on the purpose behind the buying and selling of securities.

Working with clients requires a reasoned approach. Your role is to analyze their needs, set realistic objectives, and help them succeed in reaching their goals. Financial planning provides a framework within which to do this. The structured approach to financial planning allows you to understand your clients and formulate investment recommendations that fit each person's particular situation.

Part of this approach encompasses the important role of **ethics** in the process of making investment and financial planning recommendations. When dealing with the public as an advisor, you are in a position of trust and have a duty to act ethically. Most importantly, you must place the needs and interests of your clients above your own. Ethical behaviour plays a vital role in maintaining and enhancing the integrity of the capital markets.

In this chapter, we focus on your role as an advisor in providing financial advice to retail clients. We explain the steps in the financial planning process and the codes of conduct and ethics that underlie that process. We provide an approach to financial planning that ensures your success in helping your clients reach their investment goals.

THE FINANCIAL PLANNING APPROACH

1 | Summarize the steps in the financial planning process.

The financial planning approach to investment goes beyond merely buying, selling, and trading in securities. It requires an assessment of your clients' current financial and personal situation, as well as their constraints, goals, and objectives. Your investment recommendations must be made within a financial plan that helps your clients achieve their goals and objectives. You may need to call on the expertise of specialists in investment management, tax, and estate planning for their advice and integrate their recommendations into a coherent plan that meets the client's particular needs. Many large financial institutions have created internal teams of these specialists to support their advisors.

Financial planning involves analysis of your clients' age, wealth, career, marital status, taxation status, estate considerations, risk tolerance, investment objectives, legal concerns, and other matters. Accordingly, you must form a comprehensive view of your clients' present circumstances and clearly define their future goals. The discipline and self-analysis required of clients when preparing a financial plan gives them a better understanding of themselves and what they want to achieve. In fact, the very act of creating a financial plan helps them form more realistic goals and makes it more likely that they will achieve them.

The following four objectives must be considered when creating a financial plan:

- It should be achievable.
- It should accommodate changes in lifestyle and income level.
- It should be realistic, rather than daunting.
- It should provide not only for necessities, but also for rewards.

Each person or family will have a unique financial plan with which to reach goals. However, all financial plans are based on common principles and are built following certain basic procedures.

STEPS IN THE FINANCIAL PLANNING PROCESS

Typically, financial planning is a six-step process, as follows:

1. Establish the client–advisor relationship.
2. Collect data and information.
3. Analyze data and information.
4. Recommend strategies to meet goals.

5. Implement recommendations.
6. Conduct a periodic review.

Financial planning involves the same set of steps for each client. However, within that framework, a plan must address the unique and specific needs of the particular client to be effective.

STEP 1: ESTABLISH THE CLIENT–ADVISOR RELATIONSHIP

The first step in the planning process is to interview the client to identify issues, both known and unknown, and determine how a financial plan might help address them. During this process, you and your client will decide whether you are comfortable enough with each other to begin what should become a long-term relationship.

The initial interview might include the following areas of discussion:

- The financial planning process and how it will help your clients meet their objectives
- Alternative strategies to choose from
- Specialist expertise required for specific choices
- Disclosure of possible conflicts of interest

If the initial interview is successful, you should formalize the relationship with either a letter of engagement or a professional service contract. The letter or contract should clearly and unambiguously address the following questions:

- What information will the client provide?
- What services will the advisor provide?
- How, and by whom, will the advisor be compensated?
- How, and by whom, will other professionals be compensated?
- How long is the professional relationship expected to last?

STEP 2: COLLECT DATA AND INFORMATION

Once the client-advisor relationship is established and formalized, the next step is to gather the information required to prepare the financial plan. Your clients should understand the necessity of providing as much information as possible.

To create a complete and accurate client profile, gather the following information:

- Current financial and personal status
- Investment goals and preferences
- Level of risk tolerance

To build an effective financial strategy, you must uncover and understand client motivations that are not always apparent. To discover unique personal information about your clients, you should probe to answer the following types of questions:

- How do they make important decisions?
- How do they prefer to communicate with you?
- What is their psychological makeup?
- What are the needs, goals, and aspirations of their family members?

Your role as an advisor is to do more than simply manage the financial lives of your clients and provide advice. You must also encourage them to assess and re-examine their goals in the context of their evolving business and personal lives.

You can use a number of methods to identify your clients' motives in pursuing a particular financial objective. Most methods involve listening actively and interpreting a client's statements in the context of their unique background, character, and context.

COMMUNICATING WITH AND EDUCATING THE CLIENT

The task of gathering information about a client is just the start of an ongoing relationship that should include regular contact and education. Clients rely on their advisors for many reasons, but most share a common characteristic: they want someone to understand their situation and attend to the details of their financial lives. They want an advisor who is watching out for their interests and who makes the effort to call them, even if the news is not favourable.

Your first challenge is to help your clients understand the reasons for your recommendations. You should be able to explain in simple terms the technical nature of the plan's individual elements. For example, if you recommend a global equity fund, make sure the client understands that the fund invests in stocks on markets around the world.

A greater challenge is to earn your clients' full co-operation and trust before the time comes to make decisions. You are more likely to gain that trust if you communicate with them honestly. When you explain how specific investments

will help them achieve their goals, make sure you also tell them of the risks those investments carry.

OTHER INFORMATION REQUIRED

The following information about your clients is also necessary for the preparation of a thorough financial plan:

Personal data	Personal data includes age, marital status, number of dependents, risk tolerance, and health and employment status. Analysis of these factors may reveal special portfolio restrictions or investment objectives. These factors can help you define the acceptable level of risk and appropriate investment goals.
Net worth and family budget	You can obtain a precise financial profile by showing the client how to prepare a statement of net worth and family budget. Some clients may already have these documents available. It is important that you determine the exact composition of the client's assets and liabilities, the amount and nature of current income, and the potential for future investable capital or savings. This information is invaluable in helping you determine two things: the amount of income a portfolio must generate and the level of risk the client may assume to achieve their financial goals.

You should advise clients to maintain complete records of their finances. You can help them prepare a document identifying the existence and location of wills, insurance policies, bank accounts, investment accounts, pension plans, and other important financial documents. They should also have a list of their professional advisors, including the name and contact information of their lawyers, accountants, financial planners, or advisors. It is important for family members to know where records are kept so that they can access this information in case of emergency.

DIVE DEEPER

To see samples of net worth and family budget information, go to the Appendix A at the end of this chapter and view the documents

Statement of Net Worth and *Family Budget and Earnings Available for Investment*.

STEP 3: ANALYZE DATA AND INFORMATION

To set their investment objectives, clients must assess their personal strengths and weaknesses objectively, and they must review their career and earnings potential realistically. Understandably, many clients are reluctant to perform this difficult task. However, it is not possible to set realistic financial goals without considering how to reach them, which is the purpose of setting objectives.

Because investments are selected to suit individual needs, it is essential that you start with an accurate client profile. Only by studying all factors that could affect a financial plan can you make suitable recommendations or design an appropriate investment strategy.

EXAMPLE

Your client Bill is a commissioned salesperson with a high but unstable income. Bill claims to have a high tolerance for risk and invests mostly in speculative vehicles. Ron, another client, is a geologist who earns a steady income as a unionized employee in the mining industry. Ron claims to be averse to risk and invests mostly in low-risk securities.

As an advisor to these clients, you must assess their risk tolerance based on their personal circumstances, rather than on their own claims. In fact, because Bill's income is uncertain, he may be better off having his money placed in relatively conservative investments. He should also dedicate a portion of his portfolio to liquid securities. You might suggest that he reserve a small part of the portfolio to speculative investments to address his need. However, he should consider the broader picture in the context of his unstable situation.

On the other hand, Ron, who is risk-averse by nature, could be limiting investment choices because of unrealistic fear. You should encourage him to address this fear to ensure that it does not limit his decisions. For example, he might be willing to invest in blue chip issues if he understands their relatively high quality and moderate risk.

Unless you delve into your client's personal circumstances, such as job security, investment experience, and marital situation, you can overlook important issues.

OBJECTIVES AND CONSTRAINTS

Investment objectives can generally be described as a desire for income, growth of capital, preservation of capital, tax minimization, or liquidity. You can determine your clients' particular objectives only thorough analysis of their current financial position and future requirements. Those objectives must be clearly stated because they govern investment decisions.

Constraints can be loosely defined as those items that may hinder or prevent you from satisfying a client's objectives. Constraints are often given less importance when forming a policy than objectives. However, it is essential that you identify the client's constraints and recognize the discipline they impose on the financial plan. The client's risk tolerance, investment knowledge, and time horizon are all constraints that should influence the recommendations you put forth in the plan.

STEP 4: RECOMMEND STRATEGIES TO MEET GOALS

Once you have collected and analyzed the client's information, it is time to develop the financial plan. The plan should be simple, easy for the client to implement, and easy to maintain. Clearly defined goals and tasks, along with a schedule for their achievement, can be of enormous benefit. If you need input from other professionals, you should prepare a list of instructions for them.

After you have prepared the plan, you should review it with your client, making sure they understand each chosen product and are aware of the risks as well as the potential rewards. The client must agree with your recommended goals and the stated objectives and risk tolerance level before any potential solutions are implemented.

STEP 5: IMPLEMENT RECOMMENDATIONS

At this stage, the client begins to put in motion the carefully considered ideas and strategies. Some recommendations may be discharged immediately, such as applying for insurance or paying down debt; others will be executed over a longer term. Long-term plans include making periodic investments or contributing funds to a registered retirement savings plan (RRSP).

Your clients may need your help to implement some recommendations. If necessary, you may refer them to a business partner, such as a lawyer, tax advisor, investment advisor, real estate broker, retirement specialist, or insurance representative.

STEP 6: CONDUCT A PERIODIC REVIEW AND FOLLOW-UP

A financial plan should never remain static; it must be reviewed regularly and updated to reflect changes in the client's situation. Just as investments rise and fall in market value, a person's financial situation can also change. As well, economic changes, tax increases, and health issues can all threaten even the most comprehensive plans. There is no set time frame for reviews; however, an annual review is the minimum required. Mini reviews may be necessary depending on circumstances such as changes to tax laws, economic conditions, or employment status. In extreme circumstances, such as a job loss, it may be necessary to devise a completely new financial plan.

Revisions can also arise from changes to a will or beneficiaries. They may include updates to ensure that the client is continuing to take advantage of all tax savings techniques. Recommendations can be minor and broad or lengthy and detailed. In some cases, no changes are necessary, but when changes are recommended, you must follow up with the client to make sure that they are carried out.

GATHERING INFORMATION

How do you gather information and assess client needs to prepare a financial plan? *Complete the online learning activity to assess your knowledge*.

THE LIFE CYCLE HYPOTHESIS

2 | Describe how the life cycle hypothesis is used to understand a client's investment needs.

To add perspective to the process of setting objectives, it can be helpful to think in terms of the life cycle. The **life cycle hypothesis** states that, as people age, their objectives change along with their financial and personal circumstances, their investment knowledge, and their risk tolerance. In dealing with most clients, you can make the following general assumptions:

- Older clients tend to be more risk averse than younger clients.
- Younger clients tend to focus on shorter-term financial goals, such as saving for a major purchase.
- Older clients tend to focus more on retirement and estate building.

The life cycle hypothesis, developed in the 1950s by several North American and European economists, has great potential benefit to financial advisors. The theory suggests that, if you know the age of your client, you can infer investor characteristics such as goals, circumstances, and risk tolerance. The life cycle hypothesis works for many, but not all, clients. In getting to know a particular client, a good strategy is to assume that the theory holds. Recognize, however, that you may have to change your mind as you obtain more information about a particular client. Special circumstances require an individualized approach.

THE STAGES IN THE LIFE CYCLE

The life cycle has five approximate stages:

1. Early earning years — Age 18 to 35
2. Family commitment years — Age 25 to 50
3. Mature earning years — Age 45 to 60
4. Nearing retirement — Age 55 to 70
5. Retired — Age 60 and onwards

In general, each stage corresponds to an age grouping, but there is considerable overlap between the groups. The ambiguity is accounted for by the fact that every client is unique. For example, a 30-year-old client could be in either of the first two stages. Additional information about this client will help you identify the appropriate stage.

STAGE 1: THE EARLY EARNING YEARS

The early earning years generally start when a person begins to work and ends when family commitments or other commitments start to impose financial demands. Stage 1 investors, in general, are free of family and financial commitments. They are interested in saving, but their goals are usually short-term. Car purchases and vacations are two typical goals. These clients tend not to have life insurance and probably do not need it because no one else depends on the continuity of their earnings.

By age 30, clients who have not yet started a family of their own may have made some of the same major financial commitments as their married counterparts, such as buying a house. However, some people can still be considered stage 1 investors after age 30.

Because stage 1 investors have longer time horizons, they are often psychologically prepared to tolerate a substantial amount of investment risk. When they invest for the long term, they are more likely to allocate most of their funds to riskier investments. A typical asset allocation for long-term goals might be 80% equities and 20% in fixed-income securities.

EXAMPLE

Henry, age 28, graduated from college a few years ago with a degree in broadcasting. He rents an apartment in the city and is saving for a down payment on a house. He recently bought a used car that required a small bank loan. He has only a small amount invested, which is mostly held in two equity mutual funds and two conservative funds. His asset allocation—80% in equities and 20% in fixed-income securities—reflects his higher risk tolerance, long investment horizon, and desire to earn a good return.

STAGE 2: THE FAMILY COMMITMENT YEARS

The difference between stage 1 and stage 2 investors is the number of commitments and the level of responsibility the second group must assume. A typical stage 2 client is fairly young and married with children. Marriage itself does not necessarily result in a change of stage, especially if the couple does not plan to have children or buy a home. In most cases, however, marriage leads to a shift in financial goals.

The arrival of a child has a major impact on clients' goals and their ability to attain them. It might become more difficult to save because of the added expenses, and saving for postsecondary education is likely to become an important goal. Many dual-income couples see their disposable incomes decline with the arrival of children because of the associated costs. In some cases, it results in the complete or partial elimination of one salary. Life insurance becomes a requirement, rather than a discretionary expenditure.

One of the distinguishing characteristics of stage 2 clients is their lack of liquidity due to obligations such as mortgage and car payments. Lack of liquidity has a significant impact on the savings pattern of these clients, particularly those who are younger. Although they might identify long-term goals such as retirement saving, it is typically difficult for stage 2 clients to save for the long term. As salaries increase with job experience, more savings can be deployed into medium-term goals, such as education savings and eventually retirement.

EXAMPLE

Isabelle recently married Marcus, her partner of four years. Both Isabelle and Marcus are in their early thirties. They have good careers, so their mortgage and car payments each month are manageable. They have also shown good discipline in setting up automatic savings plans each month. They consider themselves long-term investors. So far, they have invested primarily in domestic and foreign equity funds.

Isabelle and Marcus would like to start a family in the next couple of years. Their challenge is to carefully consider the effect of this decision on their investment choices.

The asset allocation at stage 2 should reflect shorter investment horizons and reduced willingness to bear risk. The weighting might shift, for example, from 80% equity and 20% fixed income to 60% equity and 40% fixed income. The move from the riskier to the more conservative mix would likely be made gradually during this stage.

STAGE 3: THE MATURE EARNING YEARS

The point where clients move from stage 2 to stage 3 varies greatly. For some clients, the transition occurs early; for others, much later. The critical factor determining the transition is almost always the family's level of disposable income. A dual-income family in a high-tax bracket will have a short stage 2, whereas a single-income family in a lower tax bracket might never leave that stage.

Stage 3 clients may be able to save for all of the goals they have identified. In many cases, they have already made provision for both short- and medium-term goals and are now able to focus their attention primarily on retirement savings.

Clients at this stage are probably not much more averse to risk than they were in stage 2. Their asset allocation is likely to shift back toward a higher weighting in equity funds. One reason for the shift is the need to minimize taxes, given that these clients are often in the highest marginal bracket. Investments in bond and money market funds generate interest income that is fully taxed. Equity funds, on the other hand, generate returns in the form of dividends and capital gains, both of which are taxed at lower rates than interest income.

Ultimately, the asset allocation for stage 3 clients depends on the range and nature of their investment goals. One client's allocation at this stage can be

very different from that of another.

EXAMPLE

Amar and Jasmit are in their late 40s and have two children in their early teens. Jasmit was recently promoted to a senior position at her company and Amar's consulting business is thriving. These changes allow them to save more of their earnings. Their focus is to save for their children's education and put more money toward their retirement. They plan to allocate their investments as follows: 40% in growth-oriented equities, 30% in dividend generating equities, 20% in bonds, and 10% in money market securities.

STAGE 4: NEARING RETIREMENT

Stage 4 clients are generally in their peak earning years. They may be financially as well off as stage 3 clients or better; however, there are two key differences. First, stage 4 clients have fewer family commitments. Their children are typically grown and have left home (although financial commitments such as tuition costs for post-secondary education may still be necessary). Second, they are closer to retirement, and they know that in the coming years they will have to rely on their savings to maintain their standard of living. Depending on their circumstances and market conditions, clients in this stage may shift toward a more risk-averse strategy of wealth preservation.

EXAMPLE

Nigel and Grace are in their early 50s. Nigel is a lighting technician in the film industry, and Grace works in health care administration. Their only son has moved out and has a career of his own. Although they saved regularly for years, saving for retirement was not a priority. They were more focused on paying off their mortgage and putting their son through school. Their challenge now is to save aggressively so they can maintain a comfortable lifestyle during retirement.

Stage 4 clients may be eager to minimize taxes by shifting their portfolios away from equities. They may still maintain a substantial equity component, but as retirement grows closer and their aversion to risk increases, the equity component of their portfolio may shrink.

STAGE 5: RETIRED

At stage 5, clients are faced with a conflict: they rely on their retirement savings to maintain a certain standard of living, but, at the same time, they need to keep sufficient funds invested to generate enough return on which to live. Higher returns are generally earned with riskier investments, but these investors should not put their retirement savings at risk because they are less likely to recover from dips in the market and less able to bear risk psychologically.

Stage 5 clients with more-than-adequate retirement savings have another concern not shared with those in stage 4: they often want to leave an inheritance for children and grandchildren. Therefore, many clients at this stage focus on estate building and wealth transfer. The asset allocation for retirees usually shifts toward less risky investments, and the equity component declines in favour of less volatile fixed income and safer investments.

EXAMPLE

Imelda and Vince retired several years ago after working for over 40 years. Although comfortable with their level of retirement income, they watch their money very closely. After retiring, they shifted most of their investments to fixed-income securities, including a mix of Treasury bills, guaranteed investment certificates (GIC), and money market funds. They kept 10% of their investments in equities. Maintaining their lifestyle is a key priority. Another challenge is to help fund the education costs for their four grandchildren.

SUMMARIZING THE LIFE CYCLE HYPOTHESIS

Table 26.1 summarizes the features of the life cycle hypothesis by showing how investment goals, personal circumstances, and financial circumstances change as people age. It does not include columns for investment knowledge or risk tolerance because changes in both of these aspects can apply across the entire life cycle.

Table 26.1 | Summary of the Life Cycle Hypothesis

	Investment Goals	Personal Circumstances	Financial Circumstances
Stage 1	Goals are generally short-	Commitments are generally	Investment portfolios are small

Early earning years: Age 18 to 35	term but could have a longer-term component.	light.	but growing. Car payments are a typical financial commitment.
Stage 2 Family commitment years: Age 25 to 50	Goals are shorter term with a medium-term component.	Commitments are at their heaviest.	Financial burdens such as mortgage payments and childcare expenses increase. Clients tend to have little liquidity.
Stage 3 Mature earning years: Age 45 to 60	Goals are medium term with a substantial long-term component	Commitments have become more moderate, to a certain extent.	Circumstances have greatly improved. Wealth increases at the highest rate. More attention must be devoted to attaining an asset allocation consistent with the client's level of risk tolerance.
Stage 4 Nearing retirement: Age 55 to 70	Goals tend to shift to the medium term.	Family commitments become lighter.	Clients have substantial investment portfolios, with little in the way of day-to-day liquidity requirements.
Stage 5 Retired: Age 60 and onwards	Goals are medium-term in scope; the existing investment portfolio must continue to earn	Family commitments might increase to help grandchildren.	Retired clients' financial commitments are light. Their portfolios must be able to maintain living standards.

	income over the medium term.

Asset allocations vary with each changing stage and are usually, but not always, affected by the constraints typical of the stage. The single most important determinant of clients' asset allocations at any stage is their psychological willingness to bear risk, which usually tends to decline with age. However, some retirees have a very high tolerance for risk, and therefore have investment portfolios containing a substantial equity fund component. Some 25-year-olds, on the other hand, may refuse to invest in anything other than money market funds or GICs.

Although the life cycle model provides a convenient approach to financial planning, you should consider it a mere guideline for developing a particular plan. Many clients will conform to the model, but individual circumstances vary, and not everyone can be easily categorized. Special circumstances require an individualized approach.

Life cycle analysis can be helpful, but it is far more important to consider the client's personal situation, financial position and responsibilities, tolerance for risk, and investment knowledge. Only by assessing these factors in depth and relating them to the expressed needs of the client can you help an individual client develop specific investment objectives.

LIFE CYCLE HYPOTHESIS

What are the characteristics of the various life stages according to the life cycle hypothesis? *Complete the online learning activity to assess your knowledge*.

ETHICS AND THE ADVISOR'S STANDARDS OF CONDUCT

3 | Summarize the roles of ethical decision-making and the standards of conduct in building trust and confidence within the securities industry.

Ethical behaviour is a critical element in building a solid, trusting relationship with clients. Ethics can be defined as a set of moral values that guide actions.

Moral values are enduring beliefs that reflect standards of what is right and what is wrong.

ETHICAL DECISION-MAKING

Ethical decision-making is based on the principles of trust, integrity, justice, fairness, honesty, responsibility, and reliability. The securities industry cannot exist without the trust and confidence of the public. Registrants in the securities industry play an important role and must regularly generate trust and confidence in their clients by adhering to high standards of ethical conduct in all of their dealings.

Ethics is defined generally as a set of values and standards that guide individual behaviour. A person's values can change over time, but the change is always driven by standards of right and wrong, rather than by personal need. Commonly agreed-on ethical values include accountability, fairness, honesty, loyalty, reliability, and trustworthiness.

As a concept, ethics can be defined more specifically in the following three ways:

- The rules or standards governing the behaviour of a particular group or profession
- A set of moral principles or values
- The study of the general nature of morals and the moral choices made by individuals

There is a key difference between ethical behaviour and mere compliance with rules. Following rules does not involve judgment, and compliance results only in conformity with externally established standards. Some rules simply codify consensus practices, such as the rule stating that stock trades settle two business days after the trade date. Other rules approximate ethics by incorporating ethical behaviour, such as the law against stealing.

Rules are designed to deal with the most significant or most common situations. They cannot encompass every possible situation that may occur in day-to-day business. People follow rules because they must, not necessarily because they believe it is morally correct. Ethical behaviour, in contrast, requires judgment based on internally established moral values. Ethical decision-making is a system that can be applied to any situation, even one where no rule exists to govern behaviour.

Such a system might involve the following steps:

1. Recognize that a moral dilemma exists.
2. Assess your options in terms of moral criteria.
3. Make a commitment to a morally appropriate strategy.
4. Have the courage to carry out the strategy.

The following short case illustrates an example of an action that is compliant with rules but that violates ethical standards.

EXAMPLE

CASE 1: Handling an Ethical Issue

Beatia, an investment advisor, is considering recommending that her client Henri invest in a small but promising software company called NetTrack Enterprises. Coincidentally, Beatia's brother-in-law is NetTrack's main shareholder and chief executive officer (CEO).

The recommendation to invest in this company may not be a clear violation of industry rules or regulations, but Beatia is nevertheless facing an ethical issue. To act in an ethically sound manner, she must do as follows:

- Recognize that making the recommendation places her in a potential or actual conflict of interest
- Consider whether her professional objectivity in making the recommendation might be compromised, or appear to be compromised, by her relationship with NetTrack's CEO
- Determine that the ethical thing to do is to disclose the relationship
- Carry out her decision by letting Henri know that the CEO of NetTrack is her brother-in-law

STANDARDS OF CONDUCT AND ETHICAL GUIDELINES

As the national self-regulatory organization that oversees the securities industry, IIROC regulates the actions and behaviour of registered individuals. Along with strict compliance with its rules and regulations, IIROC requires that registered individuals observe high standards of ethics and conduct when transacting their business. This integration of ethics into industry rules essentially applies to all of a registered individual's actions and everyday behaviour with clients.

DID YOU KNOW?

IIROC Rule 1402 *Standards of Conduct* states:

1. A Regulated Person:
   - i. in the transaction of business must observe high standards of ethics and conduct and must act openly and fairly and in accordance with just and equitable principles of trade, and
   - ii. must not engage in any business conduct that is unbecoming or detrimental to the public interest.
2. Without limiting the generality of the foregoing, any business conduct that:
   - i. is negligent,
   - ii. fails to comply with a legal, regulatory, contractual or other obligation, including the rules, requirements, and policies of a Regulated Person,
   - iii. displays an unreasonable departure from standards that are expected to be observed by a Regulated Person, or
   - iv. is likely to diminish investor confidence in the integrity of securities, futures or derivatives markets, may be conduct that contravenes one or more of the standards set forth in subsection 1402(1).

The securities industry has no formal code of ethics. However, industry rules and regulations imply a set of ethical standards. For the purposes of this course, we have distilled these rules and standards into the following five primary values that registered individuals must observe:

Duty of care	**Duty of care** is the responsibility to conduct due diligence before providing advice or recommending products. In performing this duty, you must gather as much information as you can about your clients, so you understand their needs, goals, and risk tolerance. You must also learn about the products you sell to ensure that your recommendations suit each client's situation.
Integrity	You must act in an honest, fair, and trustworthy manner in all dealings with clients, employers, colleagues, and the

	public. You must avoid entering into situations where your interests conflict with those of your clients.
Professionalism	You must conduct business in a professional manner that reflects well on yourself, your employer, and your profession. You should encourage others to do the same. You should also strive to maintain and improve your professional knowledge.
Compliance	You must conduct yourself in accordance with applicable legislation and industry rules.
Confidentiality	You must hold client information in the strictest confidence.

DUTY OF CARE

Duty of care encompasses many obligations toward clients. Among them, two obligations are of paramount importance: **Know Your Client** and due diligence. In fulfilling these two obligations, you ensure the priority of your clients' interests and the **suitability** of your recommendations.

Know Your Client	Among the duty-of-care obligations, the Know Your Client rule is of paramount importance in the industry. You must make a diligent effort to learn the essential financial and personal circumstances and the investment objectives of each client. Client account documentation should reflect all material information about the client's current status and should be updated to reflect any material changes to the client's status. Adherence to this obligation ensures that the client's interests take top priority and that all investment recommendations are suitable for that particular client.
Due diligence	Registrants must make all recommendations based on a careful analysis of information about the client and of information related to the particular product and transaction.
Unsolicited orders	An unsolicited order is an order entered by a client that was not recommended by you or anyone at your firm. In giving advice to clients, you must provide appropriate cautionary advice with

	respect to unsolicited orders that appear unsuitable based on the client's profile. You must be aware of the objectives and strategies behind each order accepted on behalf of your clients, whether it is solicited or not. You should take appropriate safeguarding measures when clients insist on proceeding with unsolicited, unsuitable orders.

INTEGRITY

As an advisor, you must be trustworthy, honest and fair in all your business dealings. This primary value requires that you observe the following obligations:

Priority of the client's interest	The client's interest must be your foremost consideration in all business dealings. In situations where you have an interest that competes with that of the client, the client's interest must be given priority.
Respect for client's assets	The client's assets are solely the property of the client and are to be used only for the client's purposes. You shall not use the client's funds or securities in any way to suit your own or another person's interests.
Complete and accurate information relayed to the client	You must take reasonable steps to ensure that all information you give to clients about their portfolios is complete and accurate. Your firm must provide each client with written confirmation of all purchases and sales, as well as monthly account statements. Your role is to accurately represent the details of each client's investments to the client. You must be familiar with the clients' investment holdings, and you must not misrepresent facts to create a more favourable view of the portfolio.
Full disclosure	In order to ensure fair, objective dealings with your clients, you must disclose all real and potential conflicts of interest.

When clients trust your integrity, they trust that your recommendations are meant to serve their interests rather your own. However, to be confident that your recommendations are sound, they must trust your competence as well as your integrity. Competence without integrity leaves them at the mercy of a self-

serving professional. Integrity without competence puts them in the hands of a well-meaning but inept professional. To ensure your competence, you must meet initial proficiency requirements for your registration category and take part in mandatory continuing education.

EXAMPLE

CASE 2: Gaining a Client's Trust

When advisor Jo-Ann assumed the account of 75-year-old Ena Beyer (Mrs. Beyer), she knew she had a challenge on her hands. Mrs. Beyer, a widow, held more than $350,000 in a non-registered account. The entire amount was invested in a combination of GICs and a mortgage mutual fund. After the first meeting with her client, it was evident that Mrs. Beyer's investment knowledge was very limited and that she relied almost entirely on her son for financial advice.

Her son, a systems-services professional employed by a high-tech firm, had been generating great returns for his own portfolio by investing in various Canadian and U.S. technology stocks.

When Mrs. Beyer passed over a list of her son's recommendations, Jo-Ann shook her head. The proposed list of holdings included an excessive amount in equities, especially aggressive, high-growth securities. It showed very few dividend-paying, blue-chip names and fixed-income securities.

Convinced that the son's proposed strategy was overly aggressive for someone with Mrs. Beyer's profile, Jo-Ann recommended to her a much more conservative approach. Mrs. Beyer balked at the suggestions for change, siding with her son over someone she was meeting only for the first time.

By questioning the son's judgment, Jo-Ann risked losing an attractive account, one that would generate a good chunk of commission income right away. But, in good conscience, she could not go along with Mrs. Beyer's requests without making further inquiries. Jo-Ann asked Mrs. Beyer if they could meet with her son and discuss her situation to determine what was in her best interests.

A few weeks later, the agreed-on meeting started poorly. Mrs. Beyer's son, Roy, seemed skeptical of Jo-Ann's abilities and was suspicious about her intentions. Undeterred, she patiently explained her responsibility as an advisor, her concerns about his mother's account, and the reasons for her recommendations.

After the first meeting, Roy said he was not yet convinced, but would think about it. His mother concurred.

It took some time, but after several more meetings, Roy became convinced of Jo-Ann's expertise and recommendations. "In the end," Jo-Ann stated, "we had totally revamped the asset mix to ensure prudent allocation of Mrs. Beyer's investments."

Mrs. Beyer was more comfortable knowing that her son was involved, and Jo-Ann felt more assured that she would be able to get better results for her client.

"We now meet regularly, and the trust that has developed between the three of us is very strong," says Jo-Ann. More recently, this trust went even farther. When Roy found himself increasingly too busy to oversee his mother's investments, they both agreed that she should switch to a managed account, with Jo-Ann as manager.

PROFESSIONALISM

Professionals with specialized knowledge are expected to protect their clients, who usually do not have the same degree of knowledge. As an advisor, you must always put client interests ahead of your own and make a continuous effort to maintain a high standard of professional knowledge. This primary value encompasses the following obligations:

Client business	All methods of soliciting and conducting business must be such as to merit public respect and confidence.
Client orders	Enter every client order only at the client's direction, unless the account has been properly constituted as a discretionary or managed account under the applicable regulatory requirements.
Trades by registered and approved individuals	All trades and all acts related to trades, whether with existing or potential clients, must be made only by people who are registered and approved under applicable legislation and the rules of the self-regulatory organizations (SRO).
Approved securities	Only securities approved for distribution by the appropriate regulatory authority and partner, director, or officer of the firm

	should be distributed. All such transactions must be recorded on the books and records of the firm.
Personal business	Conduct all your personal business affairs in a professional and responsible manner, so as to maintain not only your own reputation, but that of the securities firm and the profession.
Personal financial dealings with clients	Avoid personal financial or business dealings with clients, including lending or borrowing money, paying their losses out of personal funds, or sharing a financial interest in an account. You must also disclose the situation to the firm so that it can monitor the account.
Personal trading activity	Keep any personal trading activity to reasonable levels. If you are trading in your own account very actively on a daily basis, it is doubtful that you will have enough time to properly serve your clients. Excessive trading losses on your part will also present a negative image as a responsible financial professional.
Other personal endeavours	Make sure that any other publicly visible activity in which you participate (such as politics, social organizations, or public speaking) is conducted responsibly and moderately, so as not to present an unfavourable public image.
Continuing education	To be fully competent in your role, you must understand the factors that influence the investment industry. You must also continually upgrade your technical and general knowledge to ensure that your recommendations and advice are sound.

EXAMPLE

CASE 3: Dealing with Vulnerable Clients

Over the years, Raj has guided many people through the vulnerable period when a spouse dies, and they must decide what to do with inherited assets.

“The time immediately following the death of a loved one is a time for grieving, not decision-making,” says Raj. That’s when they most need to know that their advisor is a professional whom they can trust to put their interests ahead of the advisor’s own.

Among Raj's clients is Martina, whose retirement life was shattered by the sudden death of her husband of 35 years. Ivan was only 67 years old. Preoccupied as she was by funeral arrangements, Martina found time to call Raj to ask about Ivan's RRSP and other investment accounts. She said that Ivan had looked after the family's finances, and she was unsure what she was supposed to do. Raj assured her that no immediate action on her part was needed.

"Most people in your situation worry that they have to take care of everything immediately. In fact, as long as you have enough cash on hand to pay the bills, there is no great rush. When you're ready to sit down and talk, give me a call."

Though the timing of Ivan's passing was unexpected, it had been provided for in the couple's financial plan. Ivan's death triggered payment of a life insurance policy that had been designed to cover any of his tax liabilities at death. The two largest tax payouts had to do with the deemed disposition of rental property owned by Ivan, and the deemed disposition of his portfolio of stocks. His portfolio had built up considerable capital gains over the past 10 years.

Additionally, the life insurance policy had been over-funded to ensure a cash reserve for Martina, the beneficiary. Martina was thus able to cover all of the one-time expenses associated with a death. She was also able to pay the cost of flying her son and his young family across the country for the funeral.

While mourners gathered to comfort the grieving widow, Raj was quietly taking care of business. Raj's assistant produced an estate-evaluation report listing the market value of Ivan's equity investments on the date of his death and the maturity dates of his bond and GIC holdings. The report provided the information that Martina's executor, lawyer, and accountant would need to do their jobs.

Raj also reviewed Martina's investment account, which he had been looking after for many years. He saw that a five-year GIC was just about to expire, and that some stocks and mutual funds had recently paid quarterly dividends into her account.

In the weeks and months to come, the probate process would play out, and Martina would seek Raj's advice on how to invest her existing and inherited assets. But now was hardly the time for reinvestment decisions. Raj knew from his conversation with Martina that she would need the money for short-term expenses such as funeral home charges and catering costs. After

consulting with Martina, he transferred the available cash from her investment account to her daily chequing account at her bank.

Less may be more when it comes to helping clients who are bereaved and otherwise feeling vulnerable. “A death in the family immediately changes a client’s profile,” says Raj. “For example, they suddenly have a need for a lot more liquidity. My job is to make everything easier for them. But I don’t know if I could do that job if we hadn’t built up a relationship of trust over the years.”

COMPLIANCE

Your conduct must always be in accordance with the securities acts of the province or provinces in which you are registered. You must also observe the rules and regulations of all regulatory SROs of which your firm is a member. You must not knowingly participate or assist in any act that violates the laws of any government or government agency. If two rules apply in the same circumstances, you must adhere to the more stringent rule.

Employees of a firm’s trading, corporate finance, or research departments must be aware of the need to safeguard non-public, confidential, material information received in the normal course of business. If you acquire non-public, material information, you must neither communicate it (outside of the relationship) nor act upon it.

CONFIDENTIALITY

You must treat all information concerning your client’s transactions and accounts as confidential. You must not disclose that information except with the client’s permission, for supervisory purposes, or by order of the proper authority. Furthermore, you must keep the identity of your clients confidential and refrain from discussing their personal and financial circumstances with anyone outside your firm. Never leave the firm’s client lists or other confidential records out in the open, where they can be taken or observed by visitors to the office.

Information regarding your client’s personal and financial circumstances and trading activity must be kept confidential and may not be used in any way to effect trades in personal or proprietary accounts or in the accounts of other clients. You must refrain from trading in your own accounts based on your knowledge of your client’s pending orders. You must also refrain from using

that knowledge as a basis for recommendations to other clients and from passing this information along to any other parties.

Because the investment industry is built on trust and confidence, you must abide by high standards of ethics and conduct to establish trust, integrity, justice, fairness, honesty, responsibility, and reliability.

EXAMPLE

CASE 4: Client Confidentiality

Marco has a client who is a technical analyst with an impressively successful track record. Marco is very impressed by his client's success. In fact, he is pleased to tell other clients about the technical analyst's favourable results. He even manages to persuade some of his clients to adopt the same trading strategies as the analyst, to which his clients gladly agree.

However, Marco has violated his client's confidentiality by passing along his trading strategies to other clients. He has also violated his confidentiality obligation simply by telling the other clients that he has been maintaining an account for the analyst.

For these infractions, Marco may be subject to regulatory penalties and possibly a civil lawsuit brought by the analyst.

FIVE PRIMARY VALUES

What are the five primary values that are central to your role as an advisor? *Complete the online learning activity to assess your knowledge*.

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, we discussed the following key aspects of working with retail clients:

- There are six steps in the financial planning process, as follows:
  1. Establish the client–advisor relationship
  2. Collect data and information
  3. Analyze data and information
  4. Recommend strategies to meet goals
  5. Implement recommendations
  6. Conduct a periodic review
- The life cycle hypothesis states that the risk-return relationship of a portfolio changes because clients have different needs at different points in their lives. It assumes that the younger clients can take on more risk in the pursuit of higher returns and that the risk-return relationship reverses as clients age.
- Industry rules and regulations can be distilled into the following five primary values:
  - Duty of care
  - Integrity
  - Professionalism
  - Compliance
  - Confidentiality

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 26 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 26 FAQs.

APPENDIX A

Table 26A.1 | Statement of Net Worth

ASSETS	
Readily Marketable Assets	
Cash (savings accounts, chequing accounts, etc.)	$ _____
Guaranteed investment certificates and term deposits	_____
Bonds – at market value	_____
Stocks – at market value	_____
Mutual funds – at redemption value	_____
Cash surrender value of life insurance	_____
Other	_____
Non-liquid Financial Assets	_____
Pensions – at vested value	_____
RRSPs	_____
Tax shelters – at cost or estimated value	_____
Annuities	_____
Other	_____
Other Assets	_____
Home – at market value	_____
Recreational properties – at market value	_____
Business interests – at market value	_____
Antiques, art, jewellery, collectibles, gold and silver	_____
Cars, boats, etc.	_____
Other real estate interests	_____

Other		_____
Total Assets	$	_____
		_____
LIABILITIES		
Personal Debt		_____
Mortgage on home	$	_____
Mortgage on recreational property		_____
Credit card balances		_____
Investment loans		_____
Consumer loans		_____
Other loans		_____
Other		_____
Business Debt		_____
Investment loans		_____
Loans for other business-related debt		_____
Contingent Liabilities		_____
Loan guarantees for others		_____
Total Liabilities	$	_____
ASSETS		_____
Minus LIABILITIES		_____
NET WORTH	$	_____

Table 26A.2 | Family Budget and Earnings Available for Investment

	Monthly	Total Monthly	Total Annual
NET EARNINGS			

Self	$ _____		_____
Spouse	$ _____		_____
Net Investment Income	$ _____	$ _____	$ _____
			_____
EXPENSES & SAVINGS			_____
Maintaining Your Home			_____
Rent or mortgage payments	$ _____		_____
Property taxes	$ _____		_____
Insurance	$ _____		_____
Light, water and heat	$ _____		_____
Telephone, cable	$ _____		_____
Maintenance and repairs	$ _____		_____
Other	$ _____		_____
Total Monthly		$ _____	_____
Total Annual			$ _____
Maintaining Your Family			_____
Food	$ _____		_____

Clothing			_____
Laundry			_____
Auto expenses			_____
Education			_____
Childcare			_____
Medical, dental, drugs			_____
Accident and sickness insurance			_____
Other			_____
Total Monthly		$ _____	_____
Total Annual			$ _____
Maintaining Your Lifestyle			_____
Religious, charitable donations	$ _____		_____
Membership fees			_____
Sports and entertainment			_____
Gifts and contributions			_____
Vacations			_____
Personal expenses			_____

Total Monthly		$ _____		_____
Total Annual			$	_____
Maintaining Your Future				_____
Life insurance premiums	$ _____			_____
RRSP and pension plan contributions		$ _____	$	_____
				_____
Total Monthly Expenses and Savings		$ _____		_____
Total Annual Expenses and Savings		$ _____		_____
Available for Investment		$ _____	$	_____

Working with the Institutional Client 27

CHAPTER OVERVIEW

In this chapter, you will learn about the process of working with institutional clients, starting with an overview of the institutional marketplace and followed by an examination of the buy side and sell side of the market. You will learn about the structure, functions, and operations of buy-side and sell-side firms. We will also discuss various aspects of institutional trading, including revenue sources, clearing and settlement, and suitability requirements. You will also learn about the roles and responsibilities of the various participants in the institutional marketplace, along with the investment styles, guidelines, and restrictions they follow. Finally, you will learn about algorithmic trading, high frequency trading, and dark pools.

LEARNING OBJECTIVES	CONTENT AREAS
1 | Distinguish between the sell side and buy side within the context of the institutional marketplace.	**The Sell Side and the Buy Side of the Market**
2 | List the responsibilities of the buy-side portfolio manager and the buy-side trader.	**The Responsibilities of a Buy-Side**

		Portfolio Manager and Trader
3 |	Describe the roles and activities of a sell-side back, middle, and front office relevant to equity sales and trading.	**The Organizational Structure of a Sell-Side Trading Firm**
4 |	Describe the sell-side revenue sources on the equity and fixed-income trading desks.	**The Revenue Sources for Sell-Side Trading Firms**
5 |	Explain the institutional settlement process.	**Institutional Clearing and Settlement**
6 |	Describe the roles and responsibilities within an institutional investment dealer.	**Roles and Responsibilities in the Institutional Market**
7 |	Contrast the different buy-side investment management styles.	**Investment Styles, Guidelines, and Restrictions**
8 |	Define algorithmic trading, high frequency trading, and dark pools.	**Algorithmic Trading**

KEY TERMS

Key terms are defined in the Glossary and appear in **bold** text in the chapter.

agency traders

algorithmic trading

analyst

axe sheets

buy side

clearing

coverage traders

dark pools

direct electronic access

high frequency trading

institutional clients

institutional salesperson

institutional trader

investment bankers

liability traders

market makers

order flow

origination

price spread

prime brokerage

proprietary traders

research associate

responsible designated trader

sell side

settlement

soft-dollar arrangement

straight-through processing

trade-matching elements

Universal Market Integrity Rules

INTRODUCTION

Investment dealers serve two types of clients: retail and institutional. This course—the Canadian Securities Course—is one of the educational requirements for licensing for registrants who operate on the retail side of the business and on the institutional side. Although most content in the course is relevant to both retail and institutional

registrants, this chapter covers some areas of general knowledge that are specific to institutional representatives and their clients.

Retail clients outnumber institutional clients. However, institutional clients generally hold much larger accounts, have considerable experience and knowledge, and play an influential role in the financial markets.

In this chapter, we discuss the sell side and the buy side of the market. We examine the roles and responsibilities of the different types of investment dealer employees who play a key role in working with institutional clients. We also look at the various styles they use in serving the investment needs of institutional clients and the guidelines and restrictions they follow. Finally, we look at some trends that are currently affecting the institutional landscape.

THE SELL SIDE AND THE BUY SIDE OF THE MARKET

1 | Distinguish between the sell side and buy side within the context of the institutional marketplace.

The investment industry generally consists of the **sell side** and the **buy side**. The term *sell side* refers to dealers in the business of selling securities and other services to investors, whereas *buy side* refers to investors, both institutional and retail.

Sell-side dealers deal in the following products and services:

- Trading, investing ideas, and research
- Investment advice
- Trade execution
- Corporate finance (to issuers)
- Securities (both new and existing issues)

Securities professionals tend to use the term *buy side* to describe **institutional clients** such as mutual funds and pension funds, but they often use it in reference to retail investors as well. In other words, we typically think of the buy side as investing organizations and individual investors who are the customers of sell-side firms. In reality, however, dealers and investors constantly play the role of both buyer and seller of securities in the secondary capital markets.

THE SELL SIDE

Investment dealers on the sell side are the focus of this chapter, but they are not the only type of sell-side firm. Other examples include mutual fund dealers and exempt market dealers.

There are different types of firms within the investment dealer category. The major distinction among them is the breadth of capital markets activities they are normally involved in, as well as the range and type of services they offer investors.

Investment dealers generally fall into one of three types: full services dealers, investment banking boutiques, and self-directed dealers.

Full-service dealers	Full-service dealers are involved in almost every aspect of the securities markets, including debt and equity security underwriting, distribution and secondary market trading, mergers and acquisitions (M & A) advisory, fundamental research and technical analysis, over-the-counter (OTC) derivatives sales and trading, commodities and futures trading, and economic analysis and forecasting. They offer these services on a national or international scale and cater to both retail and institutional investors.
Investment banking boutiques	Investment banking boutiques focus on a combination of debt and equity security underwriting, sales and secondary market trading, and M & A advisory services. Investment banking boutiques

	usually offer fundamental equity research services, but they tend to focus only on the industry sectors and specific companies they underwrite. They are not generally involved in OTC derivatives trading, nor do they engage in commodity or foreign exchange trading. One major distinction between full-service dealers and investment banking boutiques is that the latter group offers their services only to institutional investors. They generally do not cater to retail investors.
Self-directed dealers	Self-directed or discount dealers focus primarily on offering secondary equity trading services to retail investors with small-to-medium-sized accounts who prefer to manage and trade their own equity portfolio. Their service offering involves fast, user-friendly equity trading through both internet- and telephone-based communication platforms. They generally do not provide advice to the investor. Because they offer only trade execution, self-directed dealers compete with full-service dealers on the basis of cost to trade—hence, the term *discount dealer*. Accordingly, they are positioned opposite to full-service dealers on the investment dealer spectrum. They are structured as either an independent entity or an affiliate of a full-service dealer.

THE BUY SIDE

The primary suppliers of capital in the marketplace are retail, institutional, and foreign investors. Users of capital are typically businesses and governments. However, individuals also use capital

through consumer financing products, such as home mortgages, car loans, and credit cards.

The various companies and organizations that connect and move capital between the suppliers and users of capital are the financial intermediaries. In well-developed capital markets such as Canada's, these intermediaries are referred to as the buy side.

Also known as institutional clients, they are concerned with asset management and are typically engaged in buying and holding securities on behalf of their clients.

INSTITUTIONAL CLIENTS

An institutional client is a legal entity that represents the collective financial interests of a large group. The group's financial interests are the objectives that serve their members' goals. As such, institutional clients have a fiduciary responsibility for the millions of dollars of their members' assets. Examples of group members can be shareholders, pensioners, or employees.

EXAMPLE

The member groups of institutional clients might have any of the following goals, among others:

- Hedging out currency exposure in a $100 million bond fund portfolio
- Growing pension assets faster than inflation over a particular period
- Raising $400 million in a stock offering for a corporation
- Minimizing tracking error in an exchange-traded fund

Institutional clients are also distinguished by the size of their accounts, which allow for lower fees and commissions compared to the fees paid by retail clients.

Because of their size, institutions dominate the financial landscape. A few examples of institutional clients are listed and described below.

Note: The Investment Industry Regulatory Organization of Canada provides a definition for the term “Institutional Customer”. However, not all the entities listed below fit within this definition.

Corporate treasuries	A corporate treasury department is responsible for managing a firm’s financial assets in support of its business activities. Duties range from general management of company finances to decisions on funding and risk management. A corporate treasury department engages in activities that may require the services of a dealer. Activities may include hedging the currency risk of a foreign subsidiary or accessing the most inexpensive capital possible by selling equity or debt in a domestic or foreign market.
Insurance companies	Insurance companies accept premiums from policyholders to fund potential payoffs for contingent losses suffered by any of the policyholders. A contingent loss is a loss that might occur as a result of a foreseeable but unpredictable event. Examples include physical damage to property or possessions, personal injury or loss of life, or legal claims made by others against the customer. The process by which the insurance company chooses the risks to insure and the suitable amount of premium to be paid is called underwriting. The premiums are then reinvested into the insurance company’s own portfolio of financial and real assets. Investment horizons tend to be long term.

	Some insurance company activities require the help of a dealer. Such activities include buying and selling equities and bonds, providing a supply of newly issued securities, supplying the market research to support trading activity, and hedging the interest rate risks of its bond portfolios.
Pension funds	A pension fund is a pool of assets managed with the goal of supplying its beneficiaries with income during their retirement years. A pension fund could represent the interests of either public or private sector employees. An example of a public sector pension fund is the Ontario Teachers' Pension Plan. Pension funds, like insurance companies, have a long investment horizon. If the fund is managed directly by the public or private sector employees, dealers help pension plans by buying and selling equities and bonds, and by supplying the market research to support that activity. Otherwise, dealers assist indirectly by supporting the investment managers hired by the pension funds to manage their assets.
Mutual funds	As we discussed in an earlier chapter, a mutual fund is a pool of assets managed for the benefit of its unitholders. The fund can assume any number of objectives and operate in any number of markets. Dealers help mutual funds by buying and selling equities and bonds on their behalf. They can provide a supply of newly issued securities, supply the market research to support trading activity, or hedge out currency or pricing risks in their portfolios.

Hedge funds	Like a mutual fund, a hedge fund is a pool of assets managed for the benefit of its unitholders. Unlike a mutual fund, however, a hedge fund is not regulated at all in terms of investment activity, as we discussed in an earlier chapter. Dealers assist hedge funds by buying and selling equities, bonds, or derivatives on their behalf. They also assist them by supplying the market research to support that activity or hedging out pricing risks in their portfolios.
Endowments	An endowment is a pool of assets created from gifts and donations for the purpose of creating income to help an organization achieve its specific goals. The organization may be a charity, university, or hospital, and its aims are not for profit. For example, the goal might be to fund annual scholarships, buy medical supplies for foreign relief workers, or finance educational media. The endowment owns the assets. Typically, an endowment requires the principal to remain intact in perpetuity. Endowments, especially in the case of larger funds, are free to use whatever investment strategy the custodians of the fund see fit. As with hedge funds, dealers assist endowments by helping the managers in charge of their portfolios to buy and sell equities, bonds, or derivatives on their behalf. They might also supply the market research to support trading activity, provide a supply of newly issued securities, or hedge out pricing risks.
Trusts	A trust is a pool of assets similar to an endowment. Unlike an endowment, however, a trust is created

	by a settlor (a person or organization) for the good of another party, known as the beneficiary. The trust terms can spell out specific aims for the use of the assets, although none are required. A trustee who manages the trust's assets has a fiduciary duty to the beneficiaries. Reasons for creating a trust include tax planning, asset protection, and estate planning. Trusts that are big enough to be considered an institutional account are usually managed as charitable or family trusts of high net worth individuals. The investment horizon of a trust is long, typically the life span of the beneficiary. Dealers help trusts by buying and selling equities and bonds on their behalf, providing a supply of newly issued securities, supplying the market research to support trading activity, or hedging out pricing risks in their portfolios.
Investment management firms	An institutional investment management firm focuses on managing investments for institutional clients. The firm targets investment mandates from institutional investors, such as defined-benefit pension plans, endowments, large family trusts, and corporate treasuries. Investment management firms may also offer management services to high net-worth clients who are classified as accredited investors. Institutional investment managers offer their services through different channels tailored to the needs of different investors. These channels may include pooled investment funds, segregated accounts, and limited partnerships.

	Dealers assist investment management firms by buying and selling equities and bonds on their behalf, providing a supply of newly issued securities, supplying the market research to support trading activity, or hedging out currency or pricing risks in their portfolios.
Investment dealers	An investment dealer is a firm that trades securities for its own account or on behalf of its customers. Investment dealers represent the sell side of the market but can also at times be an institutional client of another investment dealer.

DIRECT ELECTRONIC ACCESS

Prior to the prevalence of electronic trading, institutional investment managers placed their security transaction orders with registered investment dealers. Portfolio managers would communicate security transaction orders, (usually verbally), to the institutional sales staff at the various investment dealers with which their firm had a relationship. In essence, these equity trades created a link in a chain of relationships between the institutional investment manager, the investment dealer, and, finally, the particular stock exchange.

Facilitated by advancements in electronic trading technology, investment dealers now provide **direct electronic access** (DEA) to their institutional buy-side clients. This change has been driven by clients for quicker and cheaper access to trading opportunities. Under a DEA arrangement, the institutional investment management firm uses the dealer's participating organization number to send orders directly to a marketplace without involving the dealer's trader. In effect, the dealer is sponsoring the buy-side firm's access to the marketplace.

DIRECT ELECTRONIC ACCESS RISKS AND REGULATION

On midday of May 6, 2010, the Dow Jones Industrial Average dropped approximately 1,000 points (9%) before rebounding to recoup those losses within minutes. That was the largest intra-day point decline in market history. Although the reasons for this volatility were complex, the so-called flash crash highlighted potential challenges associated with high-speed trading. Of particular concern are sophisticated strategies used by some DEA clients such as **algorithmic trading** (discussed later in this chapter).

Industry experts worry that incidents like the flash crash could diminish investor confidence in the markets. They could also increase systemic risk; a dealer might become unable to meet its financial obligations resulting from a DEA trade. In other words, a weak link in one part of the system could have a profound effect on the integrity of the entire system.

In Canada, regulators have designed a framework that allows for the benefits of electronic trading while protecting the quality and integrity of Canadian marketplaces.

Before access can be granted to a client, the investment dealer must accept responsibility for compliance with regulatory requirements relating to the client's DEA trading activity. Investment dealers must establish appropriate standards and controls prior to offering DEA to a client, including the following requirements of clients:

- Sufficient financial resources to meet their trading obligations
- Knowledge of the order entry systems provided
- Knowledge of and ability to comply with all applicable marketplace and regulatory requirements
- Appropriate systems and procedures to monitor all DEA trading

To ensure that these standards are met, investment dealers require their DEA clients to sign a written agreement specifying that they will

comply with marketplace requirements and with the risk and credit limits set by the dealer, among other things.

A key part of the rules regarding DEA trading is that all orders must go through appropriate and consistent pre-trade dealer risk and compliance controls before being routed to a marketplace for execution. These compliance filters are designed to prevent the following types of orders

- Those that do not comply with applicable marketplace and regulatory requirements
- Those that exceed pre-determined thresholds
- Those involving securities that the DEA client is not authorized to trade

In addition to pre-trade compliance controls, the dealer is required to conduct regular post-trade monitoring to ensure compliance with requirements.

BUY SIDE VERSUS SELL SIDE FIRMS

Can you identify which entities are on the buy side and which are on the sell side of the market? *Complete the online learning activity to assess your knowledge*.

THE RESPONSIBILITIES OF A BUY-SIDE PORTFOLIO MANAGER AND TRADER

2 | List the responsibilities of the buy-side portfolio manager and the buy-side trader.

Most medium-to-large buy-side firms divide portfolio management duties into two primary occupational roles: portfolio manager and

trader. However, this division of duties may not apply to some small firms, where the portfolio manager often performs both roles.

In this section, we look at the typical roles and responsibilities of the two positions.

THE BUY-SIDE PORTFOLIO MANAGER

The portfolio manager typically has the following responsibilities:

- Create the investment mandate, investment goals, and investment guidelines and restrictions for each portfolio, either independently or in conjunction with the fund sponsor
- Develop and execute the portfolio strategy for each portfolio
- Provide pertinent and timely information to the head of fixed-income and equity markets
- Supervise all portfolio management staff, including traders, assistant portfolio managers, and any associated administrative personnel
- Provide information to assist the firm's marketing and client servicing personnel, including the following details:
  - The outlook for the markets
  - The positioning of the portfolios relative to the market outlook
  - Report of the periodic performance of the portfolios, including a detailed performance attribution analysis explaining the various sources of relative performance compared to the specific benchmark index
- Represent the firm at marketing meetings with prospective clients and at quarterly or annual meetings with existing clients, as well as industry conferences and interviews with the financial press, as required

Essentially, the portfolio manager is responsible for all aspects of the effective and prudent regulatory compliant management of the

portfolios and is therefore ultimately responsible for their performance.

THE BUY-SIDE TRADER

The major responsibilities of the buy-side trader are as follows:

- Provide the most effective execution of the portfolio manager's desired trades
- Remain informed at all times of the portfolio manager's detailed investment strategy
- Inform the portfolio manager about market conditions and trends
- Explain how market conditions can affect the portfolio manager's investment strategy
- Be aware of trade opportunities that will further the portfolio manager's objectives, either from reviewing sell-side trader's **axe sheets** or through regular conversations with sell-side sales representatives
- Maintain good, professional relationships with sales and trading staff of dealers with whom the firm does business

DID YOU KNOW?

The term *axe sheet* refers to a list of products that a trader wishes to sell or buy as quickly as possible.

The buy-side trader's primary goal is to execute the portfolio manager's trades at the best prices available in the market at the time of the trade. In this way, the trader contributes favourably to the portfolio's performance. To accomplish best execution, the trader is constantly in contact with investment dealer counterparties. By this means, the trader gets to know the overall market conditions and the liquidity of the sectors and securities that the portfolio manager is

most involved in. As such, the trader often serves as the portfolio manager's "ear to the market".

CRITERIA FOR SELECTING A SELL-SIDE BROKER

Buy-side portfolio managers and traders aim to obtain the best price for their order from a broker. In volatile or less liquid markets, traders often *shop the order around* and contact several brokers from their broker list in an attempt to get the best price. In stable and liquid markets, traders are often more confident that they are receiving a competitive bid or ask price, and thus may not feel the need to shop the order around.

The portfolio manager or trader typically deals with multiple sell-side firms that meet the following criteria:

- A strong existing relationship with a trader or sales representative
- Speed and efficiency of trade execution
- Block trading capability
- Availability of the desired product
- High quality research
- Access to industry experts, such as economists
- Frequently updated daily market commentary

This set of requirements is often supplemented by the growing field of knowledge commonly referred to as transaction cost analysis (TCA). In evaluating a sell-side firm, TCA takes into account both explicit costs, such as brokerage fees and commissions, and implicit costs, such as bid/ask spreads and market impact.

Trading professionals on each side work together to establish mutually beneficial relationships. Provided that all other evaluation factors are the same or reasonably close, buy-side professionals

tend to turn to known and trusted traders and sales representatives on the sell side to place orders.

THE ORGANIZATIONAL STRUCTURE OF A SELL-SIDE TRADING FIRM

3 | Describe the roles and activities of a sell-side back, middle, and front office relevant to equity sales and trading.

The investment dealer industry has evolved over the years, and the departmental structure of the sell side varies from one firm to the next. However, the nature of the business has remained the same. One of the primary roles of the sell-side dealer is to provide secondary markets for securities held by institutional investors.

Most full-service dealers offer clients a wide range of resources, including the following services:

- Traditional corporate and government finance underwriting
- Merger and acquisition advice
- Secondary trading
- Merchant banking
- Research
- Financial engineering
- Securities services, such as **prime brokerage**

In contrast, some smaller or more focused dealers specialize in particular segments of the capital markets.

ORGANIZATIONAL STRUCTURE OF AN INVESTMENT DEALER

An investment dealer is generally divided into three main areas, or offices: back, middle, and front. The responsibilities of each office are listed below.

BACK OFFICE

The back office of a dealer normally consists of the following functions:

- Operations
- Information technology

MIDDLE OFFICE

The middle office of a dealer normally consists of the following functions:

- Risk management
- Legal and compliance
- Corporate treasury

The heart of the middle office is compliance and risk management. It essentially performs a control function to ensure that there is no collusion between the front and back office. This role is consistent with the *separation of duties* principle.

FRONT OFFICE

The front office of a dealer normally consists of the following functions:

- Sales and trading
- Corporate finance
- Government finance
- Mergers and acquisitions or divestitures
- Corporate banking

- Merchant banking
- Securities services
- Research

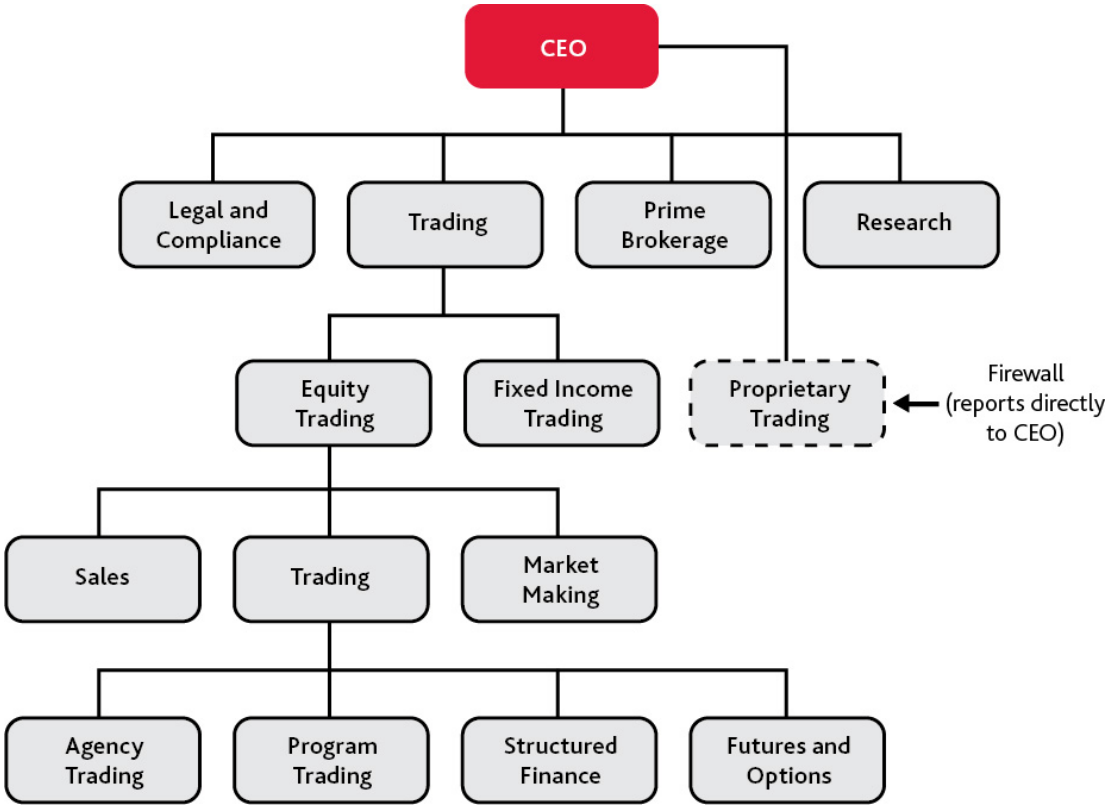
In the United States, the investment dealer's functions may include wealth management and asset management. In Canada, on the other hand, investment banking is typically a division of a full-service investment dealer, which can also have separate wealth management and self-directed brokerage divisions. Investment banking may also be a stand-alone boutique service.

Depending on the size of the firm, the following types of securities can be sold and traded:

- Equities
- Fixed income
- Foreign exchange
- Commodities
- Related structured products

Figure 27.1 provides a partial illustration of the organizational structure of a typical sell-side dealer.

Figure 27.1 | Organizational Structure of a Sell-Side Dealer



EQUITY SALES AND TRADING DEPARTMENT

The front office area of the equity sales and trading department of an investment dealer performs various functions. Many of these functions are standard regardless of the dealer's size; however, some are dependent on the specific areas of the equity markets in which they participate. The particular function also depends on the range of equity-related products and services the dealer offers to institutional investor clients.

The primary activities of the equity sales and trading department include the following functions:

- Equity trading services
- Program trading
- Structured finance
- Futures and options

EQUITY TRADING SERVICES

Equity trading services are provided by the following staff members of a trading department:

- Institutional equity sales staff members act as relationship managers between the institutional client and the dealer.
- **Agency traders** act on behalf of institutional clients.
- **Liability traders** manage the dealer's trading capital.
- **Market makers** specialize in providing a constant two-sided market for securities under their responsibility.

Each of these roles is described in detail later in the chapter.

PROGRAM TRADING

Program trading is a type of equity trading done by institutional investors that involves the use of computers to generate and execute complicated simultaneous stock market, and often derivative, orders. Program trading can take many forms. Normally, it involves the sale or purchase of a particular group (or *basket*) of stocks that comprise an index, and the simultaneous purchase or sale of a derivative product that is based on that index. The purpose of these simultaneous transactions is to take advantage of temporary price discrepancies between the stocks that make up a stock index and those that make up the derivative.

STRUCTURED FINANCE

Equity structured finance essentially involves the creation of derivatives, or structured products, that offer a unique combination of risk and reward. Structured finance is sought by institutional investors, and often uses many of the capital market principles involved in program trading.

FUTURES AND OPTIONS

An increasingly wide array of both listed and OTC options and futures for equities are available around the globe. Indeed, use of derivatives is so pervasive that many institutional equity investors no longer purchase cash equities. They instead obtain their desired exposure to equity markets solely through investment in equity derivatives.

Equity futures and options expertise helps a dealer serve institutional investors who use equity derivatives to execute their equity investment strategies. This expertise also complements a dealer's agency (and liability) trading efforts, as well as its structured finance operations.

PRIME BROKERAGE

Prime brokerage is a bundling of equity trading-related services used primarily by hedge funds.

The investment dealer's prime brokerage unit provides the following services:

- Equity pre-trade compliance testing
- Security lending (for settlement of equity short sales)
- Margin and portfolio financing
- Security settlement
- Portfolio accounting
- Capital introductions (sourcing of funds for hedge fund clients)

These prime brokerage services enable a hedge fund to become almost a turnkey operation. Many of the hedge fund's administrative functions (outside of investor marketing and servicing, as well as its equity trading) are performed by the prime broker on a fee-for-service basis.

SECURITIES LENDING

Most secondary market making or trading is focused on the ability of the dealer's institutional sales and trading staff. However, the role of the dealer's security lending operations is also critical to its overall success in the secondary market.

Because hedge funds rely on borrowed securities to operate successfully, securities lending is a vitally important aspect of prime brokerage.

The primary role of a dealer's security lending operation is to ensure that the dealer's sales and trading staff are able to competitively quote two-way markets on a continuous basis, in the various securities they trade in. Specifically, this means that the security lending staff is able to economically borrow sufficient amounts of securities that the trading staff has sold (short) to their clients or competing dealers.

RESEARCH

Although research is not formally a part of the equity sales and trading department, it does form a large component of its success. Traditionally, along with order-execution and reporting, dealer research (often called sell-side research) has been a key element of the service that dealers offer to their buy-side institutional clients.

Buy-side clients clearly value having timely **analyst** insight into industry trends and company-specific trading ideas. Access to top analysts when needed is important to clients, as is the access that analysts provide the client (money manager) to key personnel of the companies being covered. Clients also greatly value the ability of the research department to customize the research to the client's needs, as required.

Analysts may serve both internal corporate finance needs and the needs of buy-side clients. For that reason, a number of regulatory initiatives have been introduced that are designed to eliminate or minimize possible conflicts of interest. In Canada, the Investment Industry Regulatory Organization of Canada (IIROC) rules address

the need to separate research and research reports from influence by the firm's corporate finance division by means of a firewall.

DID YOU KNOW?

A firewall is an information barrier implemented to isolate persons who make decisions and separate them from those who are privy to undisclosed, material information that may influence those decisions.

THE REVENUE SOURCES FOR SELL-SIDE TRADING FIRMS

4 | Describe the sell-side revenue sources on the equity and fixed-income trading desks.

Although sell-side trading firms have a number of potential revenue sources, their important obligation to their clients must not be forgotten. The **Universal Market Integrity Rules** (UMIR) are a common set of equity trading rules designed to ensure fairness and maintain investor confidence. These rules create the framework for the integrity of trading activity on marketplaces.

BEST EXECUTION

Best execution requirements, as set out under UMIR, provide that "a Participant shall diligently pursue the execution of each client order on the most advantageous execution terms reasonably available under the circumstances." The Canadian Securities Administrators has suggested that commonly agreed-upon key elements of best execution include price, speed and certainty of execution, and total transaction cost. UMIR also indicates that best execution refers to

the entire period during which the order is handled, not merely the precise moment that it is executed.

REVENUE SOURCES OF A SELL-SIDE EQUITY TRADING DESK

The main dealer equity-focused business opportunities are as follows:

- Equity underwriting and M & A advisory services
- Breadth and capabilities:
  - Secondary equity market making
  - Agency trading
- Prime brokerage

Equity bull markets tend to increase revenues for dealers as a result of an increase in the following activities:

- Equity initial public offering and secondary re-offering underwriting
- M & A advisory business
- Overall secondary trading activity

The increase in secondary market trading activity occurs as institutional client activity increases, which results from fresh investor capital flowing into the clients' equity portfolios. Naturally, a bearish equity market has the opposite effect on dealer revenue streams.

Sell-side equity firms' revenue streams are grouped into the following four general categories:

- Trading revenue from spreads earned from principal trading
- Commissions from both agency and principal trading
- Fees
- Interest

TRADING REVENUE FROM SPREADS

Secondary equity market trading is structured around the provision of continuous simultaneous bid and ask prices for individual equities. The difference between these two prices is commonly referred to as the equity's bid-ask spread, or **price spread.**

In general, a particular equity's liquidity is determined by the size of its bid-ask price spread. The smaller the price spread is, the more liquid the equity will be. Liquidity also depends on how many shares of the equity are offered and bid for at these two market prices respectively.

In a principal trade, the investment dealer's own capital (principal) is involved in, and therefore exposed to, the risk in the equity trade. Aside from earning a commission, the main reason investment dealers are willing to put their capital at risk in a principal trade is to generate revenue on spreads by trading existing long or short positions. Another reason is to be seen as the go-to dealer for a particular stock.

The price spread represents the maximum potential profit opportunity for the dealer's principal traders. For example, when acting as principal to a trade with an institutional client who wishes to sell shares, the dealer's trader attempts to buy the equity from its client. If successful, the principal trader immediately lays off its long position in the secondary equity market at the ask price currently available in the market. If executed properly, the principal trader earns a profit between the purchase and sale price. The trader does so by minimizing the amount of the dealer's capital at risk to equity market moves, during the short time between the originating trade and the completion of its offsetting trade.

The potential revenue from a principal trade is primarily a function of the following two factors:

- The trading skills of the firm's equity traders

- The total amount of equity trades shown to the dealer's traders by its institutional investor clients (commonly referred to as client **order flow**)

DID YOU KNOW?

An investment dealer's potential trades are commonly referred to as client order flow. Increasing order flow is one of the main goals of a dealer's institutional equity sales staff. Of course, the greater the amount of trade opportunities shown to the dealer, the greater opportunity to earn trading revenues.

COMMISSIONS

When the dealer acts in the capacity of an agent in a client's equity trade, the dealer's compensation for facilitating the trade is in the form of a commission. The commission amount is added to each transaction confirmation. It is paid to the dealer at the time the equity trade is settled. By industry convention, equity trades normally settle at T+2, which means two business days after the date the trade occurs.

The dealer has a pre-established commission schedule that it negotiates with each institutional client. This commission schedule is set on a per-share basis. It normally decreases in size as the equity trade size increases.

FEES

The dealer earns fee revenue when it performs equity underwriting. It also earns revenue when it provides merger and acquisition services or related advisory services. These fees are negotiated in advance on a per-deal or transaction basis.

INTEREST

Interest income is a function of the amount and type of margin account balances it offers to its institutional clients. Many of the larger dealers offer prime brokerage services to their institutional equity investor clients, such as equity hedge funds. Because most hedge funds use some amount of leverage in their investment strategies, they usually obtain these borrowed funds from their prime broker and pay interest daily. This interest income is often supplemented by security lending fees, which are also paid by the prime broker's hedge fund clients.

REVENUE SOURCES OF A SELL-SIDE FIXED-INCOME TRADING DESK

All revenue of the sell-side fixed-income desk derives from trading activity in the trader's inventory. The three areas of operation that work interdependently to bring in revenue are as follows:

- Trading
- Sales
- Origination

The methods that each area of operation uses are described below.

TRADING REVENUE

Trading revenue is generated by moment-to-moment market movements and their effect on the net value of a trader's inventory. Almost all firms track the change in value of a trader's inventory at, or very close to, the end of the trading day. The net change in value from yesterday's closing position to today's becomes the trading revenue for the day.

The largest effect on trading revenue stems from the constantly changing price of each security in a trader's position. The bond market is an OTC market, without a central trading place or exchange for transaction at the best prices in the marketplace. The

trader must therefore gain an understanding of market value by observing trade flow and keeping abreast of other financial markets.

At any given moment, the trader's inventory is valued by using the observed or estimated bid-side price in the OTC market for long positions and the offer-side price for short positions. Some firms use a mid-market price for both long and short positions. This tactic is not as conservative as full bid or offer pricing. It reflects that positions change gradually over time and are not usually flattened all at once.

Traders of liquid securities, such as Government of Canada bonds, may price client transactions based primarily on current pricing. Traders of less liquid securities, such as high yield, junk, or distressed debt, may price them based on the historical price. There is often only a very limited connection between the current market for liquid securities and the illiquid securities of a high yield trader.

In addition to the effects of valuing the trader's inventory using current market prices, traders also have funding, cost of carry, and coupon effects on their daily profit and loss statement (P&L).

The following activities affect traders' daily P&L statements:

- They are often charged a cost for the capital they use.
- They earn the coupon on long positions and pay the coupon on short positions.
- They earn or incur costs from repurchase or reverse repurchase agreements (repos and reverse repos).

DID YOU KNOW?

A repurchase agreement is a contract in which the seller of securities agrees to repurchase the securities from the buyer at an agreed price. For the other party to the transaction (the buyer), the contract is considered a reverse repurchase agreement.

SALES REVENUE

Sales revenue is generated through transactions with clients. It is a function of how well the sales representative can meet the client's information and product needs, how liquid the security is, and how keen the client is to execute the trade. Profit derives from the difference between the trader's price for a security and the price at which the client is willing to accept and execute the trade.

Sales representatives must bring in as many trade enquiries as possible from the client base to provide a constant flow of trade. They also work with the trader to market products to clients that the trader particularly wishes to sell from or buy into his or her inventory.

A sales representative who knows a client well can provide information that allows the firm to sell bonds higher or buy bonds lower than the trader's initial price. This added value is often tracked by firms and may feature in the sales representative's annual bonus or incentive payment.

ORIGINATION REVENUE

Origination, which is also called debt capital markets (DCM) or underwriting, is the process of bringing new debt issues to market. The dealer works with a government or corporation that is issuing the debt to market the new debt issue. The dealer then buys a portion of the debt from the issuing company at a small discount from the new issue offer price and sells it to clients at the new issue offer price. The difference between the price the dealer pays the issuer and the price it receives from the buyer represents a profit for the dealer. In most firms, this profit is tracked by the DCM or debt origination desk.

SOFT-DOLLAR ARRANGEMENTS

In a **soft-dollar arrangement**, an institutional client purchases goods or services through commission dollars, rather than through

an invoice. For example, an institutional client may pay for investment research performed by a dealer by agreeing to channel some trading business through the dealer in an amount equal to the amount charged for the service.

Soft-dollar arrangements can only be used for order execution and research services. Institutional clients must disclose the arrangement to their clients and make sure it is used to benefit their clients.

Soft-dollar commissions are more prevalent in equity transactions than in fixed-income transactions. For dealers, compensation for fixed-income transactions is derived primarily from the spread, rather than charged as a commission. As a result, fixed-income transactions typically do not generate large soft-dollar commissions.

INSTITUTIONAL CLEARING AND SETTLEMENT

5 | Explain the institutional settlement process.

Clearing is the process of confirming and matching security trade details; **settlement** is the moment of irrevocable exchange of cash and securities. When an institutional firm makes trades, it notes them in its internal records and updates the portfolio as of the trade date.

The process has become highly automated through the **straight-through processing** (STP) system. However, before we discuss the automated process, we will explain the clearing and settlement process itself so that you understand the complexities involved.

THE SETTLEMENT PROCESS

The typical institutional trade involves at least the following three parties:

- The investment manager acts on behalf of underlying client accounts and decides what securities to buy or sell, and how to allocate assets among the accounts.
- The dealer executes the trades.
- The custodian (or custodians) holds the institutional investor's assets.

After the institutional investor places an order with a dealer, the investor receives in return a trade execution notice. The investor must then provide the dealer and custodian with certain details to facilitate the settlement of the trade. These trade and account details are known as **trade-matching elements**. For an institutional equity trade to clear, for example, 26 different elements must be confirmed. These elements can be grouped into two categories: *security identification* and *order and trade information*.

The dealer, in turn, must issue a customer trade confirmation with the required trade information to the custodian.

Once all the trading details have been confirmed, the next step is matching, in which the relevant parties match and verify these elements. Matching also requires that the custodian holding the institutional investor's assets confirm the trade. The trade is ready for the clearing and settlement process through the facilities of the clearing agency.

After matching is complete and the custodian has confirmed the trade, the following three steps are taken:

1. The manager advises the dealer and custodian how the securities traded are to be allocated among the underlying institutional client accounts of the manager.
2. The dealer reports and confirms the trade details to the manager and clearing agency. The categories of trade details that must be confirmed for the matching, clearing, and settlement purposes are similar to the information required from the institutional manager.

3. The custodian verifies the trade details and settlement instructions against available securities or funds held for the institutional investor. After trade details are agreed to by both sides, the manager instructs the custodian to release funds or securities to the dealer through the facilities of the clearing agency.

DID YOU KNOW?

Matching requires that both sides of the trade agree to the terms, and that the custodian verifies the availability of the required funds and securities.

CHALLENGES WITH INSTITUTIONAL TRADE PROCESSING

Institutional trades are much more complicated than retail trades because they involve larger amounts of money and securities, more parties, and more processing steps between the initiation of the order and final settlement. Errors and delays can occur in the clearing and settlement process for various reasons.

Inadequate technology	Problems can occur because the technology is lacking in automated processing capability, real-time functionality, and standard interfaces between trade parties and the custodian. Many messages sent by investment managers and dealers are sent manually by telephone or fax. Also, the recipient of these messages must manually re-key the information, which increases the likelihood of error.
Timing of activities	Problems can occur during different steps in the trade process, when notices of execution or allocation are missing or late.

Data integrity and accounting issues	Incorrect data is the leading cause of most failed trades. For an institutional trade to be processed and settled by T+2 (two business days after trade), all trade details and data elements must be agreed upon by all relevant parties involved in post-trade processing.

STRAIGHT-THROUGH PROCESSING

An important component of the overall organization of many buy-side firms is the electronic STP system, through which trades are executed. This system is increasingly becoming a buy-side best practice.

The STP system is a continuous, real-time investment management database that tracks all security transactions and investments and links the various operating departments of the firm. The system ensures compliance with various regulations, investment guidelines, and restrictions pertaining to each portfolio that a proposed trade involves. It transmits instantaneous electronic communication of executed trades to the dealer, the custodian (for settlement), and the portfolio manager who instigated the trade.

The STP system is designed to prevent human errors associated with security trading, settlement, and record-keeping activities. It ensures that only security transactions that meet all applicable regulations and investment guidelines and restrictions are permitted to be executed. The real-time nature of the STP system, coupled with the robustness of its pre-trade compliance module, enables this objective.

ROLES AND RESPONSIBILITIES IN THE INSTITUTIONAL MARKET

6 | Describe the roles and responsibilities within an institutional investment dealer.

Most, though not all, institutional clients are sophisticated investors who make their own investment decisions. The decision-making process requires that they evaluate the suitability of the products and services in which they transact. The ability of those clients to make an independent investment decision can vary from product to product. The dealer must therefore determine whether they are sufficiently informed to make a suitability judgment. The dealer must have reasonable grounds to conclude that the client is capable of making an independent investment decision and independently evaluating the investment risk. Only then will the dealer's suitability obligation be fulfilled for that transaction.

DIVE DEEPER

For more information on the suitability of institutional customers see IIROC Rule 2700, parts I.1 and I.2.

The needs of institutional clients vary from trading services to security issuance to market research. The products they buy and sell include equities, fixed income, and derivatives. Dealers are organized with various key positions in place to fill those needs.

Research associate	Also known as the associate analyst, the **research associate** is the entry-level position for other jobs in the equity and fixed-income markets. The research associate, who reports to a senior analyst, mainly builds financial or pricing models, conducts industry or company research, and helps write reports and commentary. To hold this position, you are typically required to have a minimum level of designations, including MBA, CFA, or CA. It is possible to be hired without

	these qualifications, but only in the more technical fields, such as chemistry or mining, where a master's degree in the field is more appropriate.
Analyst	Also known as the sell-side or research analyst, this person is considered an expert in respect to a specific company or sector. Analysts provide other front office staff with ongoing coverage in their area of specialty. For example, **investment bankers** look to the equity analyst for a financial forecast on companies they cover. Institutional clients may look to the derivatives analyst for market knowledge and trading ideas. Analyst ranks are often filled from within, usually from the trading desk or associate ranks. To hold this position, your education requirements would be similar to those for a research associate or associate analysts, as noted above. However, relevant work experience is considered very important.
Institutional sales	The **institutional salesperson's** main job is to be a relationship manager, serving as the liaison between the dealer and the client. Education requirements for those in the equity and fixed-income arenas are typically less rigid compared to the research associate role, mostly because salespeople tend to be generalists. To hold this position, you are typically required to have an MBA or CFA designation. In this role, you would speak to all types of clients about a wide range of products and subjects, and to a wide range of analysts.

Institutional trader	As an **institutional trader,** you might execute orders on behalf of clients (as an agency trader) or on behalf of the dealer (as a liability trader). You might also provide a constant, two-sided market for securities as a market maker. To hold this position, you are typically required to have a bachelor's degree, preferably in finance, economics, or business. In addition, the Trader Training Course (TTC) offered by CSI is an IIROC proficiency requirement to qualify as an equity trader on the TSX, TSX Venture Exchange or alternative trading systems.
Investment banker	An investment banker is responsible for building the following three areas of the dealer's business: • Corporate finance: raising debt and equity capital for corporations • Public finance: raising capital for governments and their agencies • M & A services: providing advice on mergers, buy-outs, asset sales, corporate restructurings, valuations, and fairness opinions Positions in the investment banking department are stratified over the following three areas of responsibility: • Analysts and associates: responsible for analytical work • Vice-presidents and associate directors: responsible for day-to-day management • Managing directors: responsible for the strategic direction of the business

	Senior investment banking staff members also take on more responsibility for maintaining corporate relationships and have more client interaction. To enter the ranks as a new employee, you are typically required to have an undergraduate economics or business degree. An MBA or LLB designation would be an asset.

Of all these positions, institutional salespersons and the institutional traders work most closely with institutional clients. We will discuss these two key positions in detail over the sections that follow.

THE ROLE OF THE INSTITUTIONAL SALESPERSON

Institutional salespersons and traders share the need for observation and analysis. The difference is in the purpose. The salesperson, as the client relationship manager, is the conduit between the client and the dealer. In this dynamic position, you provide insight on market movements, promote the dealer's analysts, take management teams for presentations to clients, take clients to site visits, and generally entertain clients.

A good salesperson is an effective pipeline in managing the flow of information, research, analysis, and products to clients who are interested in the sectors that the firm covers or specializes in.

In an institutional sales role, you would require proficiency in various key areas of the dealer.

Building and maintaining strong relationships with your clients	As an institutional salesperson, you are often in competition with salespersons of competing dealers. Maintaining strong client relationships through the following means is therefore a key negotiation strategy that requires the following tasks:

	• Initiate contact with preferred clients • Provide market commentary • Provide access to the dealer's economists, analysts, and other resources • Negotiate better bids and offers with the trader on behalf of the client
Providing access to good research and investment banking services	A critical skill you require as an institutional salesperson is a good understanding of the client's needs. However, not every client is immediately receptive to new investment ideas. A good research group can help you build strong relationships by providing investment ideas and opportunities for discussion. And an effective investment banking group helps the sell-side firm secure more deals, which provides buy-side clients with good opportunities to invest in new issues.
Developing your knowledge of your firm's products and the market factors that affect their pricing	As a salesperson, you must gain a certain level of expertise about the products you sell and the companies, businesses, and sectors that affect the market for those products. For example, if you sell credit derivatives, you should be intimately familiar with credit market spreads, monetary conditions, and business condition risks.

Access to good information and familiarity with your firm's products and services helps build your confidence as a salesperson when speaking to your institutional clients about their investment needs.

DID YOU KNOW?

The institutional salesperson must negotiate on two sides: with clients (to win business) and with traders (to get bids and offers that clients find attractive).

In negotiating with the trader, a key strategy is to convince the trader that the client will go to a competing dealer if the offer is not satisfactory.

Accounts among institutional salespeople are typically divided according to several key factors.

By geographic area	Dealers segregate accounts by geographical area for ease of travel by salespersons to visit their clients.
By account type	Dealers categorize accounts into two types: fundamental and hedge or arbitrage. Fundamental accounts belong to long-only money managers. To get the managers' business, the salesperson must emphasize the dealer's intellectual resources and ability to generate money-making ideas. Hedge or arbitrage accounts are more like trading accounts and tend to be more interested in money-making ideas.
By relationships	Some dealers allocate accounts to those salespersons with whom the client has the best relationship.

THE ROLE OF THE INSTITUTIONAL TRADER

Investment firms have the following three types of traders serving institutional accounts:

- Agency traders
- Liability traders
- Market makers

AGENCY TRADERS

Agency traders (also called **coverage traders**) execute large trades, called *block trades*, for institutional clients. They do not trade the dealer's capital, and they trade only when acting on behalf of clients. Agency traders do not merely take orders; they must manage institutional orders with minimal market impact and act as the client's eyes and ears for relevant market intelligence.

In the role of an agency trader, you must be aware of client intentions at all times. You must watch for news or events that might affect client orders and come up with trading ideas to generate commissions.

You must also pay attention to many information sources, including print media, Internet sources, blogs, real-time news services, and industry contacts. All this information is necessary to get an overall sense of the markets and to instantly analyze unexpected events that could move them.

Filling orders with minimal market impact means that agency traders must make transactions with the lowest possible cost to the institutional client. If improperly executed, institutional orders could add tens of thousands of dollars in extra costs for the client.

EXAMPLE

As an agency equity trader, you might choose to fill an order all at once. However, if the market for the stock is too small or if prices might be more favourable later in the day, you might break up the order into pieces. As an agency derivatives trader, getting a good fill means finding a counterparty that is both credit worthy and willing to price the derivative favourably for the client.

Agency traders also need to develop and maintain good relationships with their clients. Although they do not have as much contact with clients as salespeople, agency traders must establish a comfort level with clients so that their clients know their assets are being well served on the frontlines of the markets.

One way to establish a level of comfort is to come up with the occasional trading idea. Each institutional client has a commission allocation by which business is divided among dealers. Other than the regular business allocated to a specific dealer, each institution has some leeway to pay out extra commissions to each dealer. It is part of the agency trader's responsibility to capture some of this discretionary business for the dealer.

LIABILITY TRADERS

Liability traders (also known as **proprietary traders** or *prop traders*) are responsible for managing the dealer's trading capital to encourage market flows. They also facilitate the client orders that go into the market, while aiming to lose as little trading capital as possible. Liability traders can be seen as setting the direction for agency traders, who have more formal client responsibilities. Liability traders have lighter responsibilities, or none at all, often completing orders that couldn't be filled entirely by the agency trader on the stock exchange.

Liability traders are assigned specific sectors of the market.

EXAMPLE

On the equity desk at a large sell-side firm, Tom covers gold stocks while Chris covers telecom stocks. On the fixed-trading desk, Gina covers asset-backed securities while Igor covers high-yield issues. On the derivatives desk, Helen covers fixed-to-floating interest rate swaps while Ann trades floating-to-fixed swaps.

The liability trader walks a fine line daily between market share and profitability. Although a firm wants to be seen as the *go-to dealer* with respect to a particular market sector, doing so may tie up a large proportion of trading capital. Liability traders must still be intimately familiar with their sectors. They must understand how clients are exposed, or will be exposed, to those sectors, and how fundamentals drive the ebb and flow of the market.

Sometimes, in order to ensure a well-functioning secondary market and for the dealer to be seen as the go-to firm, liability trades are executed that end up costing the firm trading capital. The commitment to making a market for a particular security, however, may help secure future agency business from institutional clients, or even underwriting business from the issuer of the security for their next round of financing. When choosing an investment bank, issuers of new securities consider the ability of a firm to make secondary markets for their securities. Accordingly, most investment banks make substantial investments in personnel and technology to compete effectively in the secondary markets.

Liability traders can use the dealer's trading capital reactively, by making trades based on a reaction to some event or request that has occurred. Or, they can act proactively, by taking the initiative to enter a trade in the absence of a triggering event or request.

EXAMPLE

The dealer where you are a liability trader has a client who wants to sell 100,000 shares of XYZ stock. The market on XYZ stock is $10 bid, $10.10 ask. As the dealer's liability trader, you react to the client's request and make a market and buy the 100,000 shares at $10.10. Because the liability desk is not in the business of holding stocks for the long term, you try to offload the stock that day. Hopefully, market conditions will improve so that you can sell into it. If conditions do not improve, and you sell into the market at $10 bid and $10.10 ask, your firm will lose $10,000 on the sale of XYZ at $10. This is an example of a reactive trade.

Another example of a reactive trade occurs when a derivatives dealer is approached to be the counterparty on a contract. If you, as the liability trader, can find a second counterparty or make another trade to offset your exposure, the trade will occur at an agreeable price.

Working capital proactively, on the other hand, might mean making a market in a security that is deemed favourable by one of the dealer's analysts. By accumulating inventory and accentuating demand through analyst reports, you will put the firm in the position to fill orders by the time institutional accounts are solicited by the firm's salespeople.

Another proactive example occurs when the dealer becomes active in a particular stock or sector to create underwriting or investment banking deals. Underwriting and investment banking is a high-margin business. If the dealer is seen to be the top market maker in that space, it can more effectively pitch to be a leading underwriter on the next new issue.

Liability traders have a significant amount of flexibility in the strategies they employ. In fact, liability traders use many of the same investment strategies as hedge fund managers, many of whom were liability traders at a dealer before leaving to join or start up a new hedge fund on the buy side.

Most buy-side institutional investment firms, except hedge funds, are limited to long-only strategies. Liability traders, on the other hand, are able to use short sales, leverage, and derivative products as trading tools. Generally, liability trading strategies can be broken down into the following categories, based on the tools used:

- Relative value
- Event-driven
- Directional

You can read more about the major trading strategies in the context of hedge funds in Chapter 20. All of these strategies are employed

by liability traders.

MARKET MAKERS

Institutional market makers specialize in executing orders for pension funds, mutual funds, investment management companies, and other institutional clients. Market makers perform a valuable function for the exchange by improving liquidity and increasing trading volume. The primary role and responsibility of equity market makers is to provide a constant, two-sided (bid/ask) market for equities under their responsibility. They do so at an agreed-upon spread, and in compliance with all equity exchange rules and regulations. Market makers must perform this task in a manner that meets the revenue targets set by the dealer, and in accordance with risk and compliance standards.

A dealer participant that is approved by the exchange as a market maker is assigned a stock (or stocks) of responsibility (SOR). The SOR is based on various criteria, such as size and quality of the market being offered and market-making performance on the participant's existing SOR. The TSX and Canadian Securities Exchange both reserve the right to determine which competing market-making dealer will be awarded the responsibility. The dealer then assigns an individual **responsible designated trader** (RDT) to carry out market making duties on the stock.

The RDTs, who are generally more senior and experienced traders, must follow strict guidelines established by the exchange in trading their SORs. For example, RDTs at the TSX must comply with the following requirements:

- Maintain a two-sided market at an agreed-upon spread goal
- Make sure that trading in their own accounts is reasonable and consistent with just and equitable principles of trading
- Assist others in the execution of their orders with respect to their SOR

RDTs trade using the dealer's capital and carry inventories of their SOR to ensure a liquid, two-way market. They receive advantages in exchange for the responsibilities assumed and the restrictions imposed on their trading. They are entitled to preferential trading fee treatment, and to a smaller margin than that given to the general public for similar positions.

The risk to the dealer is that the institutional market maker, who is responsible for executing large block trades, will not perform well enough to earn the target revenue for a given period.

ROLES AND RESPONSIBILITIES

Can you describe the different roles and responsibilities of participants in the institutional marketplace? *Complete the online learning activity to assess your knowledge*.

INVESTMENT STYLES, GUIDELINES, AND RESTRICTIONS

7 | Contrast the different buy-side investment management styles.

To be successful as a sell-side salesperson, you must have a clear understanding of the investment objectives of each portfolio. As well, you need to be familiar with the following key aspects of the buy-side portfolio manager's investment management parameters:

- The portfolio manager's investment management style
- The investment guidelines and restrictions for each portfolio

The salesperson must have a good understanding of all the above aspects to appropriately and effectively service the portfolio manager. The salesperson's intent is to have a profitable, long-term business relationship with the institutional client.

INVESTMENT STYLES

Two major styles of portfolio management that investors employ are fixed-income and equity styles. In both cases, passive or active management approaches can be used.

FIXED-INCOME STYLES

As we learned earlier in the course, passive bond management minimizes the effects of interest rate risk on a bond portfolio. With this style, no attempt is made to predict the direction or magnitude of interest rates. Three passive bond management approaches include the buy-and-hold strategy, indexing, and immunization.

Buy-and-hold	With a buy-and-hold strategy, the manager purchases bonds with available funds and holds each bond to its maturity, thereby avoiding the interest rate risk on an early sale.
Indexing	Indexing is a method of creating a portfolio that mirrors the performance of a bond index. The typical approach is to create a portfolio that samples the index constituents and produces an effective substitute that mimics the overall index performance.
Immunization	Immunization can be viewed as a means of protecting the bond portfolio from interest rate risk by purchasing bonds that provide a defined return at a specific time and is therefore immune to outside influences. An example of a security immune to outside influences is strip bonds.

With active bond management, the portfolio manager tries to profit from interest rate risk by predicting the direction or magnitude of rate changes. With this approach, the conservative view of bonds no

longer applies. By anticipating changes in interest rates and the size of spreads between high-and low-grade corporate bonds, the manager can create strategies to profit from them. Two active bond management styles include interest rate anticipation and bond swaps.

Interest rate anticipation	With this strategy, the manager moves funds from one end of the yield curve to the other in anticipation of interest rate changes. If rates are expected to fall, extending the duration of the portfolio will be profitable. Conversely, if rates rise, the portfolio will benefit from a shift to a shorter portfolio duration.
Bond swaps	Bond swaps normally involve the purchase of one bond and the simultaneous sale of another related or unrelated bond. The motivation for a fixed-income swap is to potentially profit from the portfolio manager's analytic skills. Correct analysis should indicate the proper value for the yield spread between the two fixed-income securities.

EQUITY STYLES

As we discussed in an earlier chapter, passive equity portfolio management is consistent with the view that the markets are efficient. If so, equity prices should always reflect all relevant information concerning expected return and risk. The passive portfolio manager concentrates on designing the portfolio necessary to meet particular needs and maintaining that structure through periodic rebalancing.

Passive equity approaches include the buy-and-hold strategy and indexing.

Buy-and-	A buy-and-hold approach is a strategy whereby stocks are purchased and held for a long time, until they need

hold	to be sold. Portfolio turnover using a buy-and-hold strategy is low.
Indexing	Indexing in the equity market mimics the performance of a specific market by replicating a stock index. The manager holds each stock within the fund portfolio in exact proportion to its weighting within the index. Alternatively, a subset of the benchmark can be held to faithfully mimic the index. Portfolio turnover is low, occurring only when the underlying stocks in the index change.

Passive portfolio management is a common approach, but it is not the norm. The majority of funds are actively managed to some degree. Active strategies are based on sector rotation, market timing, value, growth, or market capitalization.

Sector rotation	Sector rotation is a top-down attempt to pick the best sectors by identifying specific sectors that will offer expected superior performance. Timing is crucial. Sector rotation tends to be aggressive. This strategy is the antithesis of the buy-and-hold approach.
Market timing	Timing the general ups and downs of the market is premised on forecasts of protracted increases or decreases in the market. In practice, however, none of the many approaches to market timing has emerged as the basis for a stable, successful, and replicable strategy.
Value	As a bottom-up value-oriented portfolio manager, you would look for undervalued securities, with little focus on overall economic and market conditions. You should be prepared to wait many years to

	recognize a stock's full value. This somewhat passive style results in a relatively low portfolio turnover.
Growth	As a bottom-up growth-oriented portfolio manager, you would choose stocks with superior earnings growth rates, compared to the market in general. A growth-oriented management approach results in a higher portfolio turnover, compared to a value-oriented style.
Market capitalization	The so-called size effect means that smaller firms generate consistently higher returns on a risk-adjusted basis than larger firms. This trait has spawned a style that focuses on the size of issuing companies as measured by market capitalization. However, this strategy may not compensate for the higher transaction costs and illiquidity. Nevertheless, smaller firms offer an advantage through diversification because returns to small cap stocks are less than perfectly correlated with the rest of the market.

TYPICAL INVESTMENT GUIDELINES AND RESTRICTIONS FOR EQUITY MANDATES

There are unique investment guidelines and restrictions for the management of each equity portfolio or mandate. A prudent buy-side equity portfolio manager generally abides by these guidelines and shares them with the sell-side equity sales staff for a more productive relationship.

Sell-side equity salespersons use the guidelines to tailor their coverage of the buy-side portfolio manager, who is responsible for the underlying equity portfolio. This information informs the sell-side

salesperson about which sectors and individual equity issuers the portfolio manager is trading. It also highlights the type of information and research that the portfolio manager values.

The liability trader plays a similar role to a portfolio manager for the dealer. The dealer's senior management determines the liability trader's investment mandate. Therefore, the liability trader must abide by the firm's investment guidelines and restrictions.

Table 27.1 provides a sample list of investment guidelines for a Canadian equity fund and the typical restrictions that may apply.

Table 27.1 | Guidelines and Restrictions for a Canadian Equity Fund

Investment Guideline	Typical Parameter or Restriction
Permitted investments	• Common equities traded on TSX, NYSE, or NASDAQ equity exchanges • Money market securities with less than one year maturity from an approved list of issuers, including the following security types: ◦ Treasury bills issued by the Government of Canada ◦ Certificates of deposit and banker's acceptances issued by Canadian Schedule I banks ◦ Commercial paper issued by an approved, high credit, Canadian public corporation
Diversification	In respect to a single issuer's permitted portfolio weighting's market cap percentage in an equity index, the following parameter applies: • Minimum: 0% (not invested in this issuer)

	• Maximum: 1.5 times the issuer's percentage weighting in the equity index In respect to an equity exchange index, the following parameter applies: • No more than 20% of the equity portfolio can be invested in equities that are not in the S&P/TSX 60 Index In respect to market capitalization, the following parameter applies: • No more than 25% of the equity portfolio can be invested in permitted issuers with a market capitalization of less than $250 million at time of purchase *Note:* Ontario Securities Commission regulations, applicable to mutual funds, state that no single issuer can represent more than a 10% weighting in the market value of the equity portfolio.
Non-permitted investments	In respect to type of securities, the following investments are not permitted: • Preferred stock • Convertible bonds • Options and warrants • Any fixed-income security maturing beyond one year • Derivatives, both listed and OTC
	In respect to type of Industry, the following investments are not permitted: • Tobacco manufacturers • Alcohol distilleries

	• Gambling venues • Weapons manufacturers • Other industries with similar ethical issues
Short sales	• Not permitted
Leverage	• Not permitted
Permitted purchase currencies	• Canadian dollar • U.S. dollar
Foreign currency hedging	• Required, but only with forward rate agreements with Canadian Schedule I banks

ALGORITHMIC TRADING

8 | Define algorithmic trading, high frequency trading, and dark pools.

Algorithmic trading involves the use of sophisticated mathematical algorithms to execute equity trades over electronic trading systems. This form of trading has grown exponentially during the past decade. Most algorithmic trading involves a large number of individual trades initiated and conducted with little human interaction. Strategies typically are developed in advance. Trades are then automatically triggered when particular market values have been reached for certain parameters.

Algorithmic trading is used extensively by buy-side institutional investors to aid in the execution of large block trading. The goal of algorithmic trading is to optimize the execution of individual large trades by reducing market impact. It involves ‘chopping up’ large market orders into smaller orders. The smaller orders are then

routed to several trading platforms, including **dark pools** (which are explained below). This method of trading attempts to disguise the true size and extent of the total order and therefore reduce the price movement that would generally occur if the market saw the original order as one trade. Algorithmic trading transactions can take anywhere from a few minutes to a few days to execute, depending on the size of the order and the liquidity of the security in question.

HIGH FREQUENCY TRADING

High frequency trading (HFT), a subset of algorithmic trading, is characterized by extremely fast trading in a very large number of orders for individual trades of very small size. The speed of a trade is generally measured in hundredths of seconds or even in thousandths of seconds. HFT attempts to profit from very small price imbalances. The large number and high speed of these types of trades is necessary to earn an acceptable rate of return on the invested capital. An HFT portfolio turnover rate is typically several thousand percent *per day*. This rate compares to typically several hundred percent *annually* for a portfolio turnover rate of a large institutional equity investor, such as a mutual fund, pension fund, or life insurance company general account.

Proponents of HFT suggest that it affects the market favourably in several ways. The advantages they cite include lower bid/ask spreads, lower volatility, and lower trading costs. Proponents also claim that higher liquidity and faster execution result from HFT.

Detractors of HFT argue that it has detrimental effects on the various markets within which it is involved. The disadvantages they cite include unfair trading advantages and increased systematic risk. They acknowledge that HFT provides liquidity when markets are operating normally. However, when these models detect certain levels of market stress or turbulence, many HFT firms quickly pull all their quotes from the market to avoid future capital losses. Detractors argue that these periods of market instability are precisely

the times when market-making capacity and liquidity are required most, to dampen volatility and improve price formation.

Equity markets currently remain the primary market of interest and activity for the vast majority of HFT firms. However, some HFT firms are expanding their trading set to include other asset classes.

DARK POOLS

A dark pool is a specific equity marketplace that does not offer pre-trade transparency on any trade orders. In Canada, dark pools are generally regulated as alternative trading systems, and are registered as investment dealers.

For institutional investors, dark pools offer many of the same benefits and features as regular stock exchanges, except that investors do not have to post their trade for the public to see. They therefore allow institutional investors to trade large blocks of equities without affecting the market price. In fact, this was the initial rationale for creating dark pools. However, the reasons for using dark pools have changed somewhat over time.

Today, dark pools are used for both large and small trades, including HFTs that are designed to exploit price differences between the price of an equity security posted to a dark pool and the price posted on an equity exchange. Dark pools allow orders between the bid and ask price, even if the spread is $0.01, which allows HFT traders to exploit fractions of a cent differences.

Detractors of dark pools claim that they are detrimental to the price discovery function for the following three reasons:

- Lack of pre-trade transparency
- Potential diminishing of information and liquidity, as the number of dark pools continues to grow
- Reduced fairness and market integrity, because of differences in access to markets and information

STEPS TO EXECUTE AN INSTITUTIONAL TRADE

How well do you understand the mechanics of trading transactions? *Complete the online learning activity to assess your knowledge*.

KEY TERMS & DEFINITIONS

Can you read some definitions and identify the key terms from this chapter that match? *Complete the online learning activity to assess your knowledge.*

SUMMARY

In this chapter, we discussed the following key aspects of working with institutional clients:

- The term *sell side* stems from the role that dealers play in selling investment ideas, research and advice, trade execution, corporate finance services, and securities. Buy-side firms are institutional clients of the sell side, such as a mutual funds and pension funds, that represent the collective financial interests of a large group.
- The functions of the back office at a sell-side firm include operations and information technology. Middle office functions include risk management, legal and compliance, and corporate treasury. The front office deals with sales and trading, corporate and government finance, M & A, corporate and merchant banking, securities services, and research.
- Revenue sources for a sell-side equity trading desk include trading revenue from spreads, commissions, fees, and interest. Revenue sources for a fixed-income trading desk include the

profits from trading, sales revenue generated through transactions with clients, and origination or underwriting revenue.

- Clearing is the process of confirming and matching security trade details. Settlement is the moment of irrevocable exchange of cash and securities. STP is a system designed to prevent human errors associated with trading activities.
- Dealers must determine whether their institutional clients are capable of assessing risk and making independent investment decisions (which most are). Their suitability obligation extends only to those clients who do not fit this profile.
- The institutional salesperson is the client relationship manager, the conduit between the customer's needs and the dealer. Agency traders manage trades for institutional clients. Liability traders manage the dealer's trading capital and have fewer client responsibilities. Market makers specialize in providing a constant two-sided market for equities under their responsibility.
- Bond and equity management styles are either passive or active. Passive bond management styles include buy-and-hold, indexing, and immunization. Active styles include interest rate anticipation and bond swaps. Passive equity management techniques include buy-and-hold and indexing. Active equity management styles include top-down sector rotation, market timing, bottom-up value-oriented stock selection, bottom-up growth-oriented stock selection, and stock selection based on market capitalization.
- Algorithmic trading, used in large block trades, involves the use of sophisticated mathematical algorithms to disguise the true size and extent of the total order, and therefore reduce price movement. HFT is a type of algorithmic trading characterized by a very large number of orders in very small trade sizes at very high speed. The goal of HFT is to profit from very small price imbalances in the market. A dark pool is a marketplace that does not offer pre-trade transparency on any trade orders.

REVIEW QUESTIONS

Now that you have completed this chapter, you should be ready to answer the Chapter 27 Review Questions.

FREQUENTLY ASKED QUESTIONS

If you have any questions about this chapter, you may find answers in the online Chapter 27 FAQs.

Summary for Volume 2

CONGRATULATIONS ON COMPLETING VOLUME 2 OF THE CSC!

You should take this opportunity to congratulate yourself on this significant accomplishment. By this point in your studies you have read over 700 pages of material, answered well over 200 review questions, completed activities, posted questions to our discussion boards—in other words, you've done a lot of work to get to this point. Although you have more work ahead of you as you prepare for the final exam, the finish line is in sight.

VOLUME 2 FOCUS

If you can think back to Volume 1 for a moment, you'll recall that our main focus for the first part of the course was understanding the different financial markets and financial instruments that help to facilitate the transfer of capital from savers to users through the various financial intermediaries.

Our focus shifted somewhat in Volume 2 towards applying what you learned to the various markets and financial instruments. The analysis was a little deeper and the real-world applicability a little more prevalent.

A quick recap:

- You learned about how to analyze the economy and public companies so that you better understand the role that market analysts play and the different types of financial reports they prepare.

- You learned about combining securities into a portfolio and the asset allocation process and studied mutual, exchange-traded, segregated, and hedge funds, and were given a very thorough overview of the many other types of managed and structured products available in the marketplace.
- And finally, you have a much better idea of the workings of the Canadian taxation system, fee-based accounts, and the differences between retail and institutional clients.

WHEN PREPARING FOR YOUR EXAM

Now that you have completed Volume 2 of the course, are you able to answer the following?

- How does the approach technical analysts use to value a security differ from fundamental analysts?
- Can you calculate the intrinsic value of a stock using the dividend discount model?
- What impact does the increase in total debt outstanding have on the asset coverage ratio?
- Why is a high inventory turnover rate considered good for a company?
- If the beta on a stock is rising, what does that mean for the overall riskiness of the stock?
- What are the three primary investment objectives?
- What is the key difference between the bottom-up and top-down investment approaches?
- What is the primary objective of a tactical asset allocation strategy?
- What are some of the key advantages of investing in mutual funds?
- How is the MER calculated?

- How do mutual funds generate taxable income?
- What is the right of withdrawal? The right of rescission?
- What are the key differentiating features of a segregated fund compared to a mutual fund?
- What are some of the tax consequences of investing in a segregated fund?
- What are some of the requirements to investing in a hedge fund?
- Can you distinguish between hedge funds and liquid alts?
- What is an exchange-traded fund?
- How are ETF units created?
- What are the main types of PPNs?
- What is a risk associated with an index-linked GIC?
- What is a special purpose vehicle?
- How is a capital gain generated and calculated for tax purposes?
- How is a superficial loss created?
- What are the features of a fee-based managed account?
- What are the steps in the financial planning process?
- Can you list the various types of institutional clients?
- Can you differentiate between the sell-side and the buy-side of the market?

This is a random selection of topics and concepts and by no means an exhaustive list. However, it should give you a good idea of where your strengths and weaknesses are and may alert you to the need for additional review before attempting your Volume 2 exam.

We also encourage a thorough review of the glossary for the key terms you have come across in this second volume when preparing for the exam.

Glossary

A

absolute risk
The total variability or volatility of returns, incorporating all sources of risk embedded in returns, including first-order risks and second-order risks. Absolute risk does not distinguish between upside and downside volatility.

accredited investor
An individual or institutional investor who meets certain minimum requirement relating to income, net worth, or investment knowledge.

accredited investor exemption
An exemption that allows an accredited investor to purchase securities without receiving a prospectus.

accrued interest
Interest accumulated on a bond or debenture since the last interest payment date.

active ETF
ETF where the portfolio manager takes an active role in investment selection.

active investment strategy
The investor or manager employs active management with the aim of outperforming a benchmark portfolio or index on a risk-adjusted basis through active securities selection.

active management
Investment management that takes an active, as opposed to a passive, role when managing investments. Active fund managers make investment decisions based on their outlook for the markets and securities in which they invest. In almost all cases, active fund managers intend to outperform the return on a specific benchmark index.

adjusted cost base
The deemed cost of an asset representing the sum of the amount originally paid plus any additional costs, such as brokerage fees and commissions.

after-acquired clause
A protective clause found in a **bond's indenture** or **contract** that binds the **bond** issuer to pledging all subsequently purchased assets as part of the collateral for a bond issue.

after-market stabilization
A type of arrangement where the dealer supports the offer price of a newly issued stock once it begins trading in the secondary market.

agency traders
Manage trades for institutional clients. They do not trade the dealer member's capital, and they trade only when acting on behalf of clients. Agency traders do not merely take orders; they must manage institutional orders with minimal market impact and act as the client's eyes and ears for relevant market intelligence.

agent
An investment dealer operates as an agent when it acts on behalf of a buyer or a seller of a security and does not itself own title to the securities at any time during the transactions. See also **Principal**.

algorithmic trading
The use of sophisticated mathematical algorithms to execute equity trades over electronic trading systems.

allocation
The administrative procedure by which income generated by the **segregated fund's** investment portfolio is flowed through to the individual contract holders of the fund.

alpha
A statistical measure of the value a fund manager adds to the performance of the fund managed. If alpha is positive, the manager has added value to the portfolio. If the alpha is negative, the manager has underperformed the market.

alternative asset
Alternative assets refer to real assets held directly or indirectly by an investor. Real assets include commodities, real estate, and collectibles.

alternative investment
Asset class that is different from the traditional three board asset classes of equities, bonds, and cash. Generally categorized for portfolio management analysis into three groups: alternative strategy funds, alternative assets and private equity.

alternative mutual fund

A type of mutual fund that is permitted greater usage of derivatives, leverage, short selling and investments in illiquid assets than conventional mutual funds, but not the extent of hedge funds. Also known as liquid alternatives or liquid alts.

alternative trading systems (ATS)
Privately-owned computerized networks that match orders for securities outside of recognized exchange facilities. Also referred to as Proprietary Electronic Trading Systems (PETS).

American-style option
An option that can be exercised at any time during the option's lifetime. See also **European-Style Option**.

amortization
Gradually writing off the value of an **intangible asset** over a period of time. Commonly applied to items such as **goodwill**, improvements to leased premises, or expenses of a new stock or bond issue. See also **Depreciation**.

analyst
An expert in respect to a specific company or sector. Analysts provide other front office staff with ongoing analytical coverage in their area of specialty.

annual information form (AIF)
A document in which an issuer is required to disclose information about presently known trends, commitments, events or uncertainties that are reasonably expected to have a material impact on the issuer's business, financial condition or results of operations. Although investors are typically not provided with the AIF, the prospectus must state that it is available on request.

annual report
The formal financial statements and report on operations issued by a company to its shareholders after its fiscal year-end.

annuitant
Person on whose life the **maturity** and **death benefit** guarantees are based. It can be the contract holder or someone else designated by the contract holder. In registered plans, the **annuitant** and contract holder must be the same person.

annuity
A contract usually sold by life insurance companies that guarantees an income to the beneficiary or annuitant at some time in the future. The income stream can be very flexible. The original purchase price may be either a lump sum or a stream of payments. See **Deferred Annuity** and **Immediate Annuity**.

arbitrage
The simultaneous purchase of a security on one stock exchange and the sale of the same security on another exchange at prices which yield a profit to the arbitrageur.

arbitration
A method of dispute resolution in which an independent arbitrator is chosen to assist aggrieved parties recover damages.

arrears
Interest or dividends that were not paid when due but are still owed. For example, **dividends** owed but not paid to **cumulative preferred** shareholders accumulate in a separate account (arrears). When payments resume, dividends in arrears must be paid to the preferred shareholders before the **common** shareholders.

ask price
The lowest price a seller will accept for the financial instrument being quoted. See also **Bid**.

asset
Everything a company or a person owns or has owed to it. A statement of financial position category.

asset allocation
Apportioning investment funds among different categories of assets, such as cash, fixed income securities and equities. The allocation of assets is built around an investor's risk tolerance.

asset allocation fund
This type of fund has similar objectives to those of balanced funds, but they differ in that they typically do not have to hold a specified minimum percentage of the fund in any class of investment.

asset-backed commercial paper (ABCP)
A type of security that has a maturity date of less than one year, typically in the range of 90 to 180 days, with a legal and design structure of an asset-backed security.

asset-backed securities (ABS)
A short- to medium-term bond with equal claim on the principal and interest cash flows from a pool of underlying receivables.

asset coverage ratio
A financial ratio that shows a company's ability to cover its debt obligations with its assets after all non-debt liabilities have been satisfied.

asset mix
The percentage distribution of assets in a portfolio among the three major asset classes: cash and equivalents, fixed income and equities.

assigned
Designated to fulfill the writer's obligation on a call or put option for an option buyer who decides to exercise the option.

Assuris
A not for profit company whose member firms are issuers of life-insurance contracts and whose mandate is to provide protection to contract holders against the insolvency of a member company.

at-the-money
An **option** with a strike price equal to (or almost equal to) the market price of the underlying security. See also **Out-of-the-money** and **In-the-money.**

attribution rules
A Canada Revenue Agency rule stating that an investor cannot avoid paying taxes at their marginal rate by transferring assets to other family members who have lower personal tax rates.

auction market
Market in which securities are bought and sold by brokers acting as **agents** for their clients, in contrast to a **dealer** market where trades are conducted **over-the-counter**. For example, the Toronto Stock Exchange is an auction market.

audit
A professional review and examination of a company's financial statements required under corporate law for the purpose of ensuring that the statements are fair, consistent and conform with **International Financial Reporting Standards (IFRS)**.

authorized shares
The maximum number of **common** (or **preferred**) shares that a corporation may issue under the terms of its charter.

Autorité des marchés financiers (Financial Services Authority) (AMF)
The body that administers the regulatory framework surrounding Québec's financial sector: securities sector, the distribution of financial products and services sector, the financial institutions sector and the compensation sector.

averages
A statistical tool used to measure the direction of the market. The most common average is the **Dow Jones Industrial Average**.

axe sheet
A list of products that a trader wishes to sell or buy as quickly as possible.

B

back-end load
A sales charge applied on the redemption of a **mutual fund**.

balanced budget
A budget is said to be balanced when revenue equals spending.

balanced fund
Invests in both stocks and bonds to provide a balanced mix of income and capital growth..

balance of payments
Canada's interactions with the rest of the world which are captured here in the current account and capital account.

Bank of Canada
Canada's central bank which exercises its influence on the economy by raising and lowering short-term interest rates.

Bank Rate
The minimum rate at which the Bank of Canada makes short-term advances to the chartered banks, other members of **Payments Canada** and investment dealers who trade in the money market.

bankers' acceptance
A commercial draft (i.e., a written instruction to make payment) drawn by a borrower for payment on a specified date. A BA is guaranteed at maturity by the borrower's bank. As with T-bills, BAs are sold at a discount and mature at their face value, with the difference representing the return to the investor. BAs may be sold before maturity at prevailing market rates, generally offering a higher yield than Canada T-bills.

banking group
A group of investment firms, each of which individually assumes financial responsibility for part of an **underwriting.**

bankrupt

The legal status of an individual or company that is unable to pay its creditors and whose **assets** are therefore administered for its creditors by a Trustee in Bankruptcy.

basis point
One-hundredth of a percentage point of bond yields. Thus, 1% represents 100 basis points.

bearer bonds
A security (usually a bond) which does not have the owner's name recorded in the books of the issuing company nor on the security itself and which is payable to the holder, i.e., the holder is the deemed owner of the security. See also **Registered Security**.

benchmark
A standard against which an investment or portfolio is measured. A common benchmark is the t-bill rate plus some sort of performance benchmark; for example, the T-bill rate plus 4%. A benchmark could also be a market index; for example, the S&P/TSX Composite Index.

beneficial owner
The real (underlying) owner of an account, securities or other assets. An investor may own shares which are registered in the name of an investment dealer, trustee or bank to facilitate transfer or to preserve anonymity, but the investor would be the beneficial owner.

beneficiary
The individual or individuals who have been designated to receive the **death benefit**. Beneficiaries may be either revocable or irrevocable.

best efforts underwriting
The attempt by an investment dealer (underwriter) to sell an issue of securities, to the best of their abilities, but does not guarantee that any or all of the issue will be sold. The investment dealer is not held liable to fulfill the order or to sell all of the securities. The underwriter acts as an **agent** for the issuer in distributing the issue.

beta
A measure of the sensitivity (i.e., volatility) of a stock or a mutual fund to movements in the overall stock market. The beta for the market is considered to be 1. A fund that mirrors the market, such as an index fund, would also have a beta of 1. Funds or stocks with a beta greater than 1 are more volatile than the market and are therefore riskier. A beta less than 1 is not as volatile and can be expected to rise and fall by less than the overall market.

bid-ask spread
The difference between the current bid and ask, calculated as Ask - Bid.

bid price

The highest price a buyer is willing to pay for the financial instrument being quoted. See also **Ask**.

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blue-chip

An active, leading, nationally known common stock with a record of continuous dividend payments and other strong investment qualities. The implication is that the company is of "good" investment value.

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blue sky

A slang term for laws that various Canadian provinces and American states have enacted to protect the public against securities frauds. The term blue skyed is used to indicate that a new issue has been cleared by a securities commission and may be distributed.

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bond

A certificate evidencing a **debt** on which the issuer promises to pay the holder a specified amount of interest based on the **coupon** rate, for a specified length of time, and to repay the loan on its maturity. Strictly speaking, assets are pledged as security for a bond issue, except in the case of government "bonds", but the term is often loosely used to describe any funded debt issue.

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bond contract

The actual legal agreement between the issuer and the bondholder. The contract outlines the terms and conditions – the **coupon** rate, timing of coupon payments, **maturity** date and any other terms. The bond contract is usually administered by a trust company on behalf of all the bondholders. Also called a **Bond Indenture** or **Trust Deed**.

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bond fund

A fund that invests primarily in bonds and derives its income mostly from interest payments made by bond issuers to the fund.

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bond indenture

See **Bond Contract**.

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bond residue

The remaining bond once the coupons have been stripped.

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book value

The amount of net assets belonging to the owners of a business (or shareholders of a company) based on **statement of financial position** values. It represents the total value of the company's assets that shareholders would theoretically receive if a company were liquidated. Also represents the original cost of the units allocated to a **segregated fund** contract.

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bottom-up analysis

An investment approach that seeks out undervalued companies. A fund manager may find companies whose low share prices are not justified. They would buy these securities and when the market finally realizes that they are undervalued, the share price rises giving the astute bottom up manager a profit. See also **Top-Down Analysis**.

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bought deal

A new issue of stocks or bonds bought from the issuer by an investment dealer for resale to its clients, usually by way of a **private placement** or short form prospectus. The dealer risks its own capital in the bought deal. In the event that the price has to be lowered to sell out the issue, the dealer absorbs the loss.

Bourse de Montréal

A stock exchange (also referred to as the Montréal Exchange) that deals exclusively with non-agricultural options and futures in Canada, including all options that previously traded on the **Toronto Stock Exchange** and all futures products that previously traded on the Toronto Futures Exchange.

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broker

An investment dealer or a duly registered individual that is registered to trade in securities in the capacity of an agent or principal and is a member of a **Self-Regulatory Organization**.

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broker of record

The broker named as the official advisor to a corporation on financial matters; has the right of first refusal on any new issues.

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bucketing

Confirming a transaction where no trade has been executed.

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budget deficit

Occurs when total spending by the government for the year is higher than revenue collected.

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budget surplus

Occurs when government revenue for the year exceeds expenditures.

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business cycle

The recurrence of periods of **expansion** and **recession** in economic activity. Each cycle is expected to move through five phases – the **trough, recovery, expansion, peak, contraction (recession)**. Given an understanding of the relationship between the business cycle and security prices an investor or fund manager would select an **asset mix** to maximize returns.

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business risk

The risk inherent in a company's operations, reflected in the variability in earnings. A weakening in consumer interest or technological obsolescence usually causes the decline. Examples include manufacturers of vinyl records, eight track recording tapes and beta video machines.

business trust
Purchases the assets of an underlying company and the profits and losses resulting from the use of the trust are shared with investors on a proportional basis.

buy and hold
A passive investment approach where the investor or manager buys and holds a portfolio of securities for a long period of time.

buy-back
A company's purchase of its common shares either by tender or in the open market for cancellation, subsequent resale or for **dividend reinvestment plans**.

buy-ins
The obligation to buy back the stock after selling it short if adequate margin cannot be maintained by the client and/or if the originally borrowed stock is called by its owner and no other stock can be borrowed to replace it.

buy side
The term applied to retail and institutional investors, since they are the buyers of securities and services provided by the sell-side of the market.

call feature
A clause in a bond or preferred share agreement that allows the issuer the right to "call back" the securities prior to maturity. The company would usually do this if they could refinance the **debt** at a lower rate (similar to refinancing a mortgage at a lower rate). Calling back a security prior to maturity may involve the payment of a penalty known as a **call premium**.

call option
The right to buy a specific number of shares at a specified price (the **strike price**) by a fixed date. The buyer pays a **premium** to the seller of the call option contract. An investor would buy a call option if the underlying stock's price is expected to rise. See also **Put Option**.

call price

The price at which a bond or preferred share with a **call feature** is redeemed by the issuer. This is the amount the holder of the security would receive if the security was redeemed prior to maturity. The call price is equal to par (or a stated value for preferred shares) plus any **call premium**. See also **Redemption Price**.

call protection period
For callable bonds, the period before the first possible call date.

callable bond
May be redeemed (called in) upon due notice by the security's issuer.

callable preferred
May be redeemed (called in) upon due notice by the security's issuer.

Canada Deposit Insurance Corporation (CDIC)
A federal Crown Corporation providing deposit insurance against loss (up to $100,000 per depositor) when a member institution fails.

Canada Education Savings Grant (CESG)
An incentive program for those investing in a **Registered Education Savings Plan (RESP)** whereby the federal government will make a matching grant of a maximum of $500 to $600 per year of the first $2,500 contributed each year to the RESP of a child under age 18.

Canada Pension Plan (CPP)
A mandatory contributory pension plan designed to provide monthly retirement, disability and survivor benefits for all Canadians. Employers and employees make equal contributions. Québec has its own parallel pension plan Québec Pension Plan (QPP).

Canada Premium Bonds (CPBs)
A secure savings product fully guaranteed by the Government of Canada. The government discontinued the sale of CPBs in November 2017 but will continue to guarantee and honour any existing issues until investors redeem them or the issues mature, whichever comes first.

Canada Savings Bonds (CSBs)
A secure savings product fully guaranteed by the Government of Canada. The government discontinued the sale of CSBs in November 2017 but will continue to guarantee and honour any existing issues until investors redeem them or the issues mature, whichever comes first.

Canadian Derivatives Clearing Corporation (CDCC)
The CDCC is a service organization that clears, issues, settles, and guarantees options, futures, and futures options traded on the Bourse de Montréal (the Bourse).

Canadian Investor Protection Fund (CIPF)
A fund that protects eligible customers in the event of the insolvency of an IIROC dealer member. It is sponsored solely by IIROC and funded by quarterly assessments on dealer members.

Canadian Life and Health Insurance Association Inc. (CLHIA)
The national trade group of the life insurance industry, which is actively involved in overseeing applications and setting industry standards.

Canadian Securities Administrators (CSA)
The CSA is a forum for the 13 securities regulators of Canada's provinces and territories to co-ordinate and harmonize the regulation of the Canadian capital markets.

Canadian Securities Exchange (CSE)
Launched in 2003 as an alternative marketplace for trading equity securities and emerging companies.

Canadian Unlisted Board (CUB)
An Internet web-based system for investment dealers to report completed trades in unlisted and unquoted equity securities in Ontario.

CanDeal
Provides institutional investors with electronic access to federal bond bid and offer prices and yields from its six bank-owned dealers.

CanPx
A joint venture of several IIROC member firms and operates as an electronic trading system for fixed income securities providing investors with real-time bid and offer prices and hourly trade data.

capital
Has two distinct but related meanings. To an economist, it means machinery, factories and inventory required to produce other products. To an investor, it may mean the total of financial **assets** invested in securities, a home and other fixed assets, plus cash.

capital and financial account
Account which reflects the transactions occurring between Canada and foreign countries with respect to the acquisition of assets, such as land or currency. Along with the **current account** a component of the **balance of payments**.

capital gain
Selling a security for more than its purchase price. For non-registered securities, 50% of the gain would be added to income and taxed at the investor's marginal rate.

capital loss
Selling a security for less than its purchase price. Capital losses can only be applied against capital gains. Surplus losses can be carried forward indefinitely and used against future capital gains. Only 50% of the loss can be used to offset any taxable capital loss.

capital market
Financial markets where **debt** and **equity** securities trade. Capital markets include organized exchanges as well as private placement sources of debt and equity.

Capital Pool Company (CPC)
A company that is permitted to seek financing through an IPO prior to having any assets or commercial operation. The CPC uses the funds raised from the IPO to evaluate and acquire an existing business or significant assets in a qualifying transaction.

capital shares
One of the components of split shares. Capital shares receive the majority of capital gains from the underlying common shares.

capitalization or capital structure
Total dollar amount of all **debt**, **preferred** and **common** stock, and **retained earnings** of a company. Can also be expressed in percentage terms.

capitalizing
Recording an expenditure initially as an **asset** on the **statement of financial position** rather than as an expense on the **statement of comprehensive income**, and then writing it off or **amortizing** it (as an expense on the **statement of comprehensive income**) over a period of years. Examples include interest, and research and development.

carry forward
The amount of RRSP contributions that can be carried forward from previous years. For example, if a client was entitled to place $13,500 in an RRSP and only contributed $10,000, the difference of $3,500 would be the unused contribution room and can be carried forward indefinitely.

carrying charges
Deductible expenses for tax purposes.

cash account
A type of brokerage account where the investor is expected to have either cash in the account to cover their purchases or where an investor will deliver the required amount of cash before the settlement date of the purchase.

cash flow

A company's profit for a stated period plus any deductions that are not paid out in actual cash, such as **depreciation**. For an investor, any source of income from an investment including **dividends**, interest income, rental income, etc. Can also refer to money flowing into our out of an account or portfolio.

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cash flow-to-total debt outstanding ratio

A financial **ratio** that gauges a company's ability to repay the funds it has borrowed. Short-term borrowings must normally be repaid or rolled over within a year.

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cash-secured put write

Involves writing a **put option** and setting aside an amount of cash equal to the strike price. If the cash-secured put writer is assigned, the cash is used to buy the stock from the exercising put buyer.

CBID

An electronic trading system for fixed-income securities operating in the retail market.

CBID Institutional

An electronic trading system for fixed-income securities operating in the institutional market.

CDS Clearing and Depository Services Inc. (CDS)

CDS provides customers with physical and electronic facilities to deposit and withdraw depository-eligible securities and manage their related ledger positions (securities accounts). CDS also provides electronic clearing services both domestically and internationally, allowing customers to report, confirm and settle securities trade transactions.

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central bank

A body established by a national Government to regulate currency and **monetary policy** on a national/international level. In Canada, it is the Bank of Canada; in the United States, the Federal Reserve Board; in the U.K., the Bank of England.

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chart analysis

The use of charts and patterns to forecast buy and sell decisions. See also **Technical Analysis**.

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class A and B stock

Shares that have different classes sometimes have different rights. Some may have superior claims over other classes or may have different voting rights. Class A stock is often similar to a participating preferred share with a prior claim over Class B for a stated amount of dividends or assets or both, but without voting rights; the Class B may have voting rights but no priority as to dividends or assets. Note that these distinctions do not always apply.

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clearing

The process of confirming and matching security trade details.

clearing corporations
A not-for-profit service organization owned by the exchanges and their members for the clearance, settlement and issuance of **options** and **futures**. A clearing corporation provides a guarantee for all options and futures contracts it clears, by becoming the buyer to every seller and the seller to every buyer.

closed-end discretionary funds
Funds that have the flexibility to buy back their outstanding shares periodically. Also known as interval funds.

closed-end fund
Shares in closed-end investment companies are readily transferable in the open market and are bought and sold like other shares. Capitalization is fixed. See also **Investment Company**.

closet indexing
A portfolio strategy whereby the fund manager does not replicate the market exactly but sticks fairly close to the market weightings by industry sector, country or region or by the average market capitalization.

coincident indicators
Statistical data that, on average, change at approximately the same time and in the same direction as the economy as a whole.

collateral trust bond
A bond secured by stocks or bonds of companies controlled by the issuing company, or other securities, which are deposited with a **trustee**.

commercial paper
An unsecured promissory note issued by a corporation or an asset-backed security backed by a pool of underlying financial assets. Issue terms range from less than three months to one year. Most corporate paper trades in $1,000 multiples, with a minimum initial investment of $25,000. Commercial paper may be bought and sold in a secondary market before maturity at prevailing market rates.

commission
The fee charged by a stockbroker for buying or selling securities as agent on behalf of a client.

commodity
A product used for commerce that is traded on an organized exchange. A commodity could be an agricultural product such as canola or wheat, or a natural resource such as oil or gold. A commodity can be the basis for a **futures** contract.

commodity ETF
Commodity ETFs are focused on commodity holdings or holdings that replicate or are related to commodities. Three different types of commodity ETFs include physical-based, futures-based, or equity-based ETFs.

commodity futures
Futures contracts based on an underlying commodity.

common shares
Securities representing ownership in a company. They carry voting privileges and are entitled to the receipt of dividends, if declared. Also called common stock.

competitive tender
A distribution method used in particular by the Bank of Canada in distributing new issues of government marketable bonds. Bids are requested from primary **distributors** and the higher bids are awarded the securities for distribution. See also **Non-Competitive Tender**.

compound interest
Interest earned on an investment at periodic intervals and added to the amount of the investment; future interest payments are then calculated and paid at the original rate but on the increased total of the investment. In simple terms, interest paid on interest.

confirmation
A printed acknowledgement giving details of a purchase or sale of a security which is normally mailed to a client by the broker or investment dealer within 24 hours of an order being executed. Also called a contract.

consolidated financial statements
A combination of the financial statements of a parent company and its subsidiaries, presenting the financial position of the group as a whole.

consolidation
See **Reverse Split**.

consumer finance company
Makes direct cash loans to consumers, who usually are unable to secure a loan from a bank. Consumer finance companies typically charge a higher interest rate than banks.

contrarian investors
Contrarian investors use sentiment indicators to determine what the majority of investors expect prices to do in the future, so that they can move in the opposite direction.

Consumer Price Index (CPI)

Price index which measures the cost of living by measuring the prices of a given basket of goods. The CPI is often used as an indicator of **inflation**.

continuation pattern
A chart formation indicating that the current trend will continue.

continuous public disclosure
The act of a public corporation complying with continuous disclosure requirements set out by the relevant provincial securities act.

contract holder
The owner of a **segregated fund** contract.

contraction
Represents a downturn in the economy and can lead to a recession if prolonged.

contribution in kind
Transferring securities into an **RRSP**. The general rules are that when an asset is transferred there is a **deemed disposition**. Any **capital gain** would be reported and taxes paid. Any **capital losses** that result cannot be claimed.

control position
Ownership of sufficient voting stock in a company to materially affect its affairs. In all provinces except Manitoba, New Brunswick and Quebec, a 20% holding is deemed to represent control.

conversion price
The dollar value at which a **convertible** bond or security can be converted into common stock.

conversion privilege
The right to exchange a bond for common shares on specifically determined terms.

convertible
A **bond**, **debenture** or **preferred** share which may be exchanged by the owner, usually for the **common stock** of the same company, in accordance with the terms of the conversion privilege. A company can force conversion by calling in such shares for redemption if the **redemption price** is below the market price.

convertible arbitrage strategy
A strategy that looks for mispricing between a convertible security and the underlying stock. A typical convertible arbitrage position is to be long the convertible bond and short the common stock of the same company.

convexity
A measure of the rate of change in duration over changes in yields. Typically, a bond will rise in price more if the yield change is negative than it will fall in price if the yield change is positive.

core holdings
In the context of ETFs, core holdings are typically passive ETF investments intended to provide the majority of returns, as opposed to satellite holdings which are more focused on riskier sector ETF holdings.

corporate note
An unsecured promise made by the borrower to pay interest and repay the principal at a specific date.

corporation or company
A form of business organization created under provincial or federal statutes which has a legal identity separate from its owners. The corporation's owners (shareholders) have no personal liability for its debts. See also **Limited Liability**.

correction
A price reversal that typically occurs when a security has been overbought or oversold in the market.

correlation
A measure of the relationship between two or more securities. If two securities mirror each other's movements perfectly, they are said to have a positive one (+1) correlation. Combining securities with high positive correlations does not reduce the risk of a portfolio. Combining securities that move in the exact opposite direction from each other are said to have perfect negative one (-1) correlation. Combining two securities with perfect negative correlation reduces risk. Very few, if any, securities have a perfect negative correlation. However, risk in a portfolio can be reduced if the combined securities have low positive correlations.

cost method
Used when a company owns less than 20% of a subsidiary.

cost of sales
A **statement of comprehensive income** account representing the cost of buying raw materials that go directly into producing finished goods.

cost-push inflation
A type of inflation that develops due to an increase in the costs of production. For example, an increase in the price of oil may contribute to higher input costs for a company and could lead to higher inflation.

coupon bond
A bond with coupons attached that represent the regular interest payments the issuer is obligated to pay.

coupon rate
The rate of interest that appears on the certificate of a **bond**. Multiplying the coupon rate times the **principal** tells the holder the dollar amount of interest to be paid by the issuer until **maturity**. For example, a bond with a **principal** of $1,000 and a coupon of 10% would pay $100 in interest each year. Coupon rates remain fixed throughout the term of the bond. See also **Yield**.

covenant
A pledge in a **bond indenture** indicating the fulfilment of a promise or agreement by the company issuing the debt. An example of a covenant may include the promise not to issue any more debt.

cover
Buying a security previously sold short. See also **Short Sale**.

covered call
A written call option where the writer owns the underlying stock, and uses this position to meet their obligations if assigned.

covered call ETF
ETFs that employ covered calls to enhance the yield and reduce the volatility of owning the underlying stock or portfolio.

coverage trader
Manages trades on behalf of institutional clients and does not trade the dealer member’s capital. Also known as an agency trader.

covered writer
The writer of an option who also holds a position that is equivalent to, but on the opposite side of the market from the short option position. In some circumstances, the equivalent position may be in cash, a convertible security or the underlying security itself. See also **Naked Writer**.

creation unit
The block of ETF shares provided by an ETF issuer to the designated broker.

creditor protection
Segregated funds offer protection from creditors in the event of bankruptcy, because segregated funds are an insurance product, and the insurance proceeds generally fall

outside the provisions of bankruptcy legislation.

crowdfunding
The process of raising start-up capital by soliciting contributions from the public at large, usually aided by online or Internet-based systems.

cum dividend
With **dividend**. If you buy shares quoted cum dividend, i.e., before the ex dividend date, you will receive an upcoming already-declared dividend. If shares are quoted **ex-dividend** (without dividend) you are not entitled to the declared dividend.

cum rights
With rights. Buyers of shares quoted cum rights, i.e., before the **ex-rights date**, are entitled to forthcoming already-declared rights. If shares are quoted ex rights (without rights) the buyer is not entitled to receive the declared rights.

cumulative preferred
A **preferred** stock having a provision that if one or more of its **dividends** are not paid, the unpaid dividends accumulate in **arrears** and must be paid before any dividends may be paid on the company's **common shares**.

current account
Account that reflects all payments between Canadians and foreigners for goods, services, interest and dividends. Along with the **capital and financial account** it is a component of the **balance of payments**.

current assets
Cash and assets which in the normal course of business would be converted into cash, usually within a year, e.g. accounts receivable, inventories. A **statement of financial position** category.

current liabilities
Money owed and due to be paid within a year, e.g. accounts payable. A **statement of financial position** category.

current ratio
A **liquidity ratio** that shows a company's ability to pay its current obligations from **current assets**. A current ratio of 2:1 is the generally accepted standard. Also known as the working capital ratio.

current yield
The annual income from an investment expressed as a percentage of the investment's current value. On stock, calculated by dividing yearly **dividend** by market price; on bonds, by dividing the **coupon** by market price. See also **Yield**.

custodian
A firm that holds the securities belonging to a **mutual fund** or a **segregated fund** for safekeeping. The custodian can be either the insurance company itself, or a qualified outside firm based in Canada.

cycle analysis
Used to you forecast when the market will start moving in a particular direction and when it will ultimately reach its peak or trough. The theory of cycle analysis is based on the assumption that cyclical forces drive price movements in the marketplace.

cyclical industry
An industry that is particularly sensitive to swings in economic conditions. Cyclical industries tend to rise quickly when the economy does well and fall quickly when the economy contracts.

cyclical stock
A stock in an industry that is particularly sensitive to swings in economic conditions. Cyclical Stocks tend to rise quickly when the economy does well and fall quickly when the economy contracts. In this way, cyclicals move in conjunction with the **business cycle**. For example, during periods of **expansion** auto stocks do well as individuals replace their older vehicles. During **recessions**, auto sales and auto company share values decline.

cyclical unemployment
The amount of unemployment that rises when the economy softens, firms' demand for labour moderates, and some firms lay off workers in response to lower sales. It drops when the economy strengthens again.

daily valuation method
A method of calculating the NAVPS of a mutual fund. The incremental change in the value of a fund from day to day is expressed as an index from which the return can be calculated. This method of calculation is beneficial for mutual funds, which generally calculate NAVPS daily. It greatly simplifies their return calculation at the end of the month.

dark pool
An equity marketplace that does not offer pre-trade transparency on trader orders.

day order
A buy or sell order that automatically expires if it is not executed on the day it is entered. All orders are day orders unless otherwise specified.

dealer market
A market in which securities are bought and sold **over-the-counter** in which dealers acts as **principals** when buying and selling securities for clients. Also referred to as the **unlisted market**.

dealer member
A stock brokerage firm or investment dealer which is a member of a stock exchange or the **Investment Industry Regulatory Organization of Canada**.

death benefit
The amount that a segregated fund policy pays to the beneficiary or the estate when the market value of the segregated fund is lower than the guaranteed amount on the death of the **annuitant**.

debenture
A certificate of indebtedness of a government or company backed only by the general credit of the issuer and unsecured by mortgage or lien on any specific asset. In other words, no specific assets have been pledged as collateral.

debt
Money borrowed from lenders for a variety of purposes. The borrower typically pays interest for the use of the money and is obligated to repay it at a set date.

debt-to-equity ratio
A **ratio** that shows whether a company's borrowing is excessive. The higher the ratio, the higher the **financial risk**.

debt securities
A debt instrument such as a bond or debenture is an instrument that represents a liability on a loan and specifies basic terms such as the amount borrowed, the interest rate and maturity date. The issuer promises to repay the loan at maturity. The term of the loan varies depending on the type of instrument.

declining-balance method
An accounting method of depreciation whereby a fixed percentage is applied to the outstanding balance of an asset to determine the expense to be charged each period.

declining industry
An industry moving from the **maturity** stage. It tends to grow at rates slower than the overall economy, or the growth rate actually begins to decline.

deemed disposition

Under certain circumstances, taxation rules state that a transfer of property has occurred, even without a purchase or sale, e.g., there is a deemed disposition on death or emigration from Canada.

default

A **bond** is in default when the borrower has failed to live up to its obligations under the **trust deed** with regard to interest, **sinking fund** payments or has failed to redeem the bonds at maturity.

default risk

The risk that a debt security issuer will be unable to pay interest on the prescribed date or the **principal** at **maturity**. Default risk applies to debt securities not equities since equity **dividend** payments are not contractual.

defensive industry

An industry with a record of stable earnings and continuous **dividend** payments and which has demonstrated relative stability in poor economic conditions.

defensive stock

A stock of a company with a record of stable earnings and continuous **dividend** payments and which has demonstrated relative stability in poor economic conditions. For example, utility stock values do not usually change from periods of **expansion** to periods of **recession** since most individuals use a constant amount of electricity.

deferred annuity

This type of contract, usually sold by life insurance companies, pays a regular stream of income to the **beneficiary** or annuitant at some agreed-upon start date in the future. The original payment is usually a stream of payments made over time, ending prior to the beginning of the annuity payments. See also **Annuity**.

deferred preferred shares

A type of preferred share that pays no dividend until a future maturity date.

deferred sales charge

The fee charged by a **mutual fund** or insurance company for redeeming units. It is otherwise known as a **redemption fee** or **back-end load**. These fees decline over time and are eventually reduced to zero if the fund is held long enough.

deferred tax liabilities

The income tax payable in future periods. These liabilities commonly result from temporary differences between the book value of assets and liabilities as reported on the statement of financial position and the amount attributed to that asset or liability for income tax purposes.

defined benefit plan

A type of registered pension plan in which the annual payout is based on a formula. The plan pays a specific dollar amount at retirement using a predetermined formula.

defined contribution plan
A type of registered pension plan where the amount contributed is known but the dollar amount of the pension to be received is unknown. Also known as a **money purchase plan**.

deflation
A sustained fall in prices where the consumer price index is negative.

delayed floater
A type of **variable rate preferred share** that entitles the holder to a fixed dividend for a predetermined period of time after which the dividend becomes variable. Also known as a **fixed-reset** or **fixed floater**.

delayed opening
Postponement in the opening of trading of a security the result of a heavy influx of buy and/or sell orders.

delisting
Removal of a security's listing on a **stock exchange**.

demand
The quantity demanded of a good or service based on a particular price during a given period. The lower the price, the higher the demand.

demand pull inflation
A type of inflation that develops when continued consumer demand pushes prices higher.

denominations
The face values of a bond.

depletion
Refers to consumption of natural resources that are part of a company's assets. Producing oil, mining and gas companies deal in products that cannot be replenished and as such are known as wasting assets. The recording of depletion is a bookkeeping entry similar to **depreciation** and does not involve the expenditure of cash.

depreciation
Systematic charges against earnings to write off the cost of an **asset** over its estimated useful life because of wear and tear through use, action of the elements, or obsolescence. It is a bookkeeping entry and does not involve the expenditure of cash.

derivative
A type of financial instrument whose value is based on the performance of an underlying financial asset, commodity, or other investment. Derivatives are available on interest rates, currency, stock indexes. For example, a **call option** on IBM is a derivative because the value of the call varies in relation to the performance of IBM stock. See also **Options**.

designated broker
A designated broker has a contractual agreement with an ETF company to aid in the creation and redemption of ETF units.

direct bonds
This term is used to describe bonds issued by governments that are firsthand obligations of the government itself. See also **Guaranteed Bonds**.

direct electronic access (DEA)
The process of some institutional clients directly accessing the exchanges electronically via their investment dealers rather than placing orders (usually verbally) with their investment dealer who would in turn execute the transaction.

directional strategies
A type of **hedge fund** that places a bet on the anticipated movements in the market prices of equities, fixed-income securities, foreign currencies and commodities.

director
Person elected by voting **common** shareholders at the annual meeting to direct company policies.

directors' circular
Information sent to shareholders by the **directors** of a company that are the target of a takeover bid. A recommendation to accept or reject the bid, and reasons for this recommendation, must be included.

disclosure
One of the principles of securities regulation in Canada. This principle entails full, true and plain disclosure of all material facts necessary to make reasoned investment decisions.

discount
The amount by which a **preferred** stock or **bond** sells below its **par value**.

discount brokers
Brokerage house that buys and sells securities for clients at a greater commission discount than full-service firms. Also known as self-directed brokers.

discount rate
In computing the value of a bond, the discount rate is the interest rate used in calculating the present value of future cash flows.

discouraged workers
Individuals that are available and willing to work but cannot find jobs and have not made specific efforts to find a job within the previous month.

discretionary account
A securities account where the client has given specific written authorization to a partner, director or qualified portfolio manager to select securities and execute trades for him. See also **Managed Account** and **Wrap Account**.

disinflation
A decline in the rate at which prices rise – i.e., a decrease in the rate of inflation. Prices are still rising, but at a slower rate.

distressed securities strategy
Invests in the equity or debt securities of companies that are in financial difficulty and face bankruptcy or reorganization; these generally sell at deep discounts, reflecting their issuers' weak credit quality.

diversification
Spreading investment risk by buying different types of securities in different companies in different kinds of businesses and/or locations.

dividend
An amount distributed out of a company's profits to its shareholders in proportion to the number of shares they hold. Over the years a **preferred** dividend will remain at a fixed annual amount. The amount of **common** dividends may fluctuate with the company's profits. A company is under no legal obligation to pay preferred or common dividends.

dividend discount model
The relationship between a stock's current price and the present value of all future dividend payments. It is used to determine the price at which a stock should be selling based on projected future dividend payments.

dividend fund
Invest in preferred shares as well as high-quality common shares, with a history of consistently paying dividends.

dividend payout ratio
A ratio that measures the amount or percentage of the company's profit that are paid out to shareholders in the form of dividends.

dividend record date
The date upon which a company determines which shareholders are entitled to the declared dividend.

dividend reinvestment plan
The automatic reinvestment of shareholder dividends in more shares of the company's stock.

dividend tax credit
A procedure to encourage Canadians to invest in **preferred** and **common shares** of taxable, dividend-paying Canadian corporations. The taxpayer pays tax based on grossing up the dividend and obtains a credit against federal and provincial tax based on the grossed up amount. The federal government may adjust the gross up rate and tax credit from year to year.

dividend yield
A value ratio that shows the annual dividend rate expressed as a percentage of the current market price of a stock. Dividend yield represents the investor's percentage return on investment at its prevailing market price.

dollar cost averaging
Investing a fixed amount of dollars in a specific security at regular set intervals over a period of time, thereby reducing the average cost paid per unit.

domestic bonds
Bonds issued in the currency and country of the issuer. For example, a Canadian dollar-denominated bond, issued by a Canadian company, in the Canadian market would be considered a domestic bond.

Dow Jones Industrial Average (DJIA)
A price-weighted **average** that uses 30 actively traded **blue chip** companies as a measure of the direction of the New York Stock Exchange.

drawdown
A cash management open-market operation pursued by the Bank of Canada to influence interest rates. A drawdown refers to the transfer of deposits to the Bank of Canada from the direct clearers, effectively draining the supply of available cash balances. Drawdown also refers to peak-to-trough investment declines during a specific period, expressed as a percentage of the peak value. Individual drawdowns measure the percentage loss an investor would have realized if an investment was bought at its peak and subsequently sold at its lowest point.

due diligence report

When negotiations for a new issue of securities begin between a dealer and corporate issuer, the dealer normally prepares a due diligence report examining the financial structure of the company.

duration
A measure of bond price volatility. The approximate percentage change in the price or value of a bond or bond portfolio for a 1% point change in interest rates. The higher the duration of a bond the greater its risk.

duty of care
The responsibility to conduct due diligence before providing advice or recommending products.

dynamic asset allocation
An **asset allocation** strategy that refers to the systematic rebalancing, either by time period or weight, of the securities in the portfolio, so that they match the long-term benchmark asset mix among the various asset classes.

E

early redemption fee
A fee that is typically charged by a mutual fund when the fund is redeemed within 90 days of the initial purchase.

earned income
Income that is designated by Canada Revenue Agency for **RRSP** calculations. Most types of revenues are included with the exception of any form of investment income and pension income.

earnings per common share
A financial ratio that shows the earnings available to each common share.

earnings per share (eps)
A **value ratio** that shows the portion of net income for a period attributable to a single **common share** of a company. For example, a company with $100 million in earnings and with 100 million common shareholders would report an EPS of $1 per share.

economic indicators
Statistics or data series that are used to analyze business conditions and current economic activity. See also **leading**, **lagging**, and **coincident indicators**.

economics
A social science that is concerned with an understanding of production, distribution, and consumption of goods and services..

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economies of scale
An economic principle whereby the per unit cost of producing each unit of output falls as the volume of production increases. Typically, a company that achieves economies of scale lowers the average cost per unit through increased production since fixed costs are shared over an increased number of goods.

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efficient frontier
The curve that reflects the most efficient portfolios for all levels of risk.

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efficient market hypothesis
The theory that a stock's price reflects all available information and reflects its true value.

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election period
When an investor purchases an **extendible** or **retractable bond**, they have a time period in which to notify the company if they want to exercise the option.

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emerging growth industries
Brand new industries in the early stages of growth. Often considered as speculative because they are introducing new products that may or may not be accepted and may face strong competition from other new entrants.

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emerging markets alternative funds
Invest in equity and debt securities of companies in emerging markets by using derivatives, short selling, and other complex investment strategies. As some emerging markets do not allow short selling and do not have viable derivative markets, these funds may not be able to hedge. As a result, performance can be volatile.

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equilibrium price
The price at which the quantity demanded equals the quantity supplied.

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equipment trust certificate
A type of debt security that was historically used to finance "rolling stock" or railway boxcars. The cars were the collateral behind the issue and when the issue was paid down the cars reverted to the issuer. In recent times, equipment trusts are used as a method of financing containers for the offshore industry. A security, more common in the U.S. than in Canada.

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equity
Ownership interest in a corporation's stock that represents a claim on its revenue and assets. See also **Stock**.

equity accounting method
An accounting method used to determine income derived from a company's investment in another company over which it exerts significant influence.

equity-based exchange-traded fund
Commodity ETF that invests in listed companies that are involved in exploration and development or in the processing or refining of a commodity.

equity fund
Funds in the equity category must invest a minimum of 90% of their non-cash assets in equity securities. The main investment objective of equity funds is long-term capital growth.

equity market-neutral strategy
Designed to exploit inefficiencies and opportunities in the equity market by creating simultaneously long and short matched equity portfolios of approximately the same size with a goal of having zero (or very low) beta (directional exposure).

equity securities
Evidence of a share of ownership stake in the company that issued the security.

equity value per common share
A financial ratio, also called *book value per common share*, measures the net asset coverage for each common share if all assets were sold and all liabilities were paid.

escrowed shares
Outstanding shares of a company which, while entitled to vote and receive **dividends**, may not be bought or sold unless special approval is obtained. Mining and oil companies commonly use this technique when **treasury shares** are issued for new properties. Shares can be released from escrow (i.e., freed to be bought and sold) only with the permission of applicable authorities such as a stock exchange and/or securities commission.

ETF Facts
A summary disclosure document that ETFs are required to produce and file.

ethical decision-making
Decision-making based on the principles of trust, integrity, justice, fairness, honesty, responsibility, and reliability.

ethics
Defined as the rules or standards governing the behaviour of a particular group or profession, a set of moral principles or values, or the study of the general nature of morals and the moral choices made by individuals.

Eurobonds
Bonds that are issued and sold outside a domestic market and typically denominated in a currency other than that of the domestic market. For example, a **bond** denominated in Canadian dollars and issued in Germany would be classified as a Eurobond.

European-style option
An **option** that can only be exercised on a specified date – normally the business day prior to expiration.

event-driven strategies
A type of **hedge fund** that seeks to profit from unique events such as mergers, acquisitions, stock splits or buybacks.

ex-ante
A projection of expected returns – what investors expect to realize as a return.

exchange fund account
A special federal government account operated by the Bank of Canada to hold and conduct transactions in Canada's foreign exchange reserves on instructions from the Minister of Finance.

exchange rate
The price at which one currency exchanges for another.

exchange-traded funds (ETFs)
Open-end mutual fund trusts that hold the same stocks in the same proportion as those included in a specific stock index. Shares of an exchange-traded fund trade on major stock exchanges. Like index mutual funds, ETFs are designed to mimic the performance of a specified index by investing in the constituent companies included in that index. Like the stocks in which they invest, shares can be traded throughout the trading day.

exchange-traded fund wraps
A discretionary account where a single annual fee, based on the account's total assets, is charged. Often directed by a single portfolio manager, the managed account holds a basket of ETFs for security selection. The underlying ETFs tend to be passive in the investment management.

exchange-traded notes (ETNs)
Exchange-traded debt obligations issued by a bank that promises to pay investors a return on their investment based on the performance of a specific reference asset such as an index or another benchmark.

ex-dividend

A term that denotes that when a person purchases a **common** or **preferred share**, they are not entitled to the **dividend** payment. Shares go ex-dividend one business day prior to the shareholder record date. See also **Cum Dividend**.

ex-dividend date
The date that the shares start to trade ex-dividend. See **ex-dividend**.

exempt investor
Investors who meet certain qualifications that permit them to purchase securities without receiving a prospectus.

exempt list
Large professional buyers of securities, mostly financial institutions, that are offered a portion of a new issue by one member of the banking group on behalf of the whole syndicate. The term exempt indicates that this group of investors is exempt from receiving a **prospectus** on a new issue as they are considered to be sophisticated and knowledgeable.

exercise
The process of invoking the **rights** of the option or **warrant** contract. It is the holder of the option who exercises his or her rights. See also **Assignment**.

exercise price
The price at which a **derivative** can be exchanged for a share of the underlying security (also known as **subscription price**). For an **option**, it is the price at which the underlying security can be purchased, in the case of a **call**, or sold, in the case of a **put**, by the option holder. Synonymous with **strike price**.

expansion
A phase of the **business cycle** characterized by increasing corporate profits and hence increasing share prices, an increase in the demand for capital for business expansion, and hence an increase in interest rates.

expectations theory
A theory stating that the **yield curve** is shaped by a market consensus about future interest rates.

expiration date
The date on which certain rights or option contracts cease to exist. For equity options, this date is usually the Saturday following the third Friday of the month listed in the contract. This term can also be used to describe the day on which warrants and rights cease to exist.

ex-post
The **rate of return** that was actually received. This historic data is used to measure actual performance.

ex-rights
A term that denotes that the purchaser of a **common share** would not be entitled to a rights offering. Common shares go ex-rights two business days prior to the shareholder of **record date**.

extendible bond or debenture
A **bond** or **debenture** with terms granting the holder the option to extend the maturity date by a specified number of years.

extension date
For extendible bonds the maturity date of the bond can be extended so that the bond changes from a short-term bond to a long- term bond.

extra dividend
An extra payment made in addition to a regular dividend payment.

F

face value
The value of a bond or debenture that appears on the face of the certificate. Face value is ordinarily the amount the issuer will pay at maturity. Face value is no indication of market value.

F-class fund
A type of fee-based fund with a lower MER. To accommodate fee-based financial advisors, many mutual fund companies began offering F-class mutual funds. These funds reduce or eliminate the double charge

fee-based accounts
A type of account that bundles various services into a fee based on the client's assets under management, for example, 1% to 3% of client assets.

fiduciary responsibility
The responsibility of an investment advisor, mutual fund salesperson or financial planner to always put the client's interests first. The fiduciary is in a position of trust and must act accordingly.

final good
A finished product, one that is purchased by the ultimate end user.

final prospectus
The prospectus which supersedes the **preliminary prospectus** and is accepted for filing by applicable provincial securities commissions. The final prospectus shows all required information pertinent to the new issue and a copy must be given to each first-time buyer of the new issue.

financial asset
A non-physical representational asset that derives a claim based on what it represents. For example, stocks, bonds and bank deposits are financial assets.

financial futures
Futures contracts with a financial asset as the underlying asset. Examples of underlying assets include currencies and stock indexes.

financial intermediary
An institution such as a bank, life insurance company, credit union or mutual fund which receives cash, which it invests, from suppliers of capital.

financial ratios
Financial calculations based on a company's financial statements, often providing clues about the company's financial health.

financial risk
The additional risk placed on the common shareholders from a company's decision to use debt to finance its operations.

financing
The purchase for resale of a security issue by one or more investment dealers. The formal agreement between the investment dealer and the corporation issuing the securities is called the **underwriting** agreement. A term synonymous with underwriting.

financing group
The lead underwriter of a new issue of securities brought to market by an issuing company. Also known as managing underwriters and syndicate managers.

fintech
Financial technology companies that take advantage of computer technology to provide more efficient financial products and services.

firewall
Policies implemented to separate and isolate persons within a firm who make investment decisions from persons within a firm who are privy to undisclosed material information which may influence those decisions. For example, there should be separate fax machines for research departments and sales departments.

firm commitment underwriting
The underwriter commits to buy a specified number of securities at a set price, which it then resells to the public. In a firm commitment agreement, the underwriter pays the full proceeds to the issuer, regardless of whether it has been able to resell the securities to the public. The underwriter assumes the risk of selling the security.

first-in-first-out (FIFO)
Inventory items acquired earliest are sold first.

first mortgage bonds
The senior securities of a company as they constitute a first charge on the company's assets, earnings and undertakings before unsecured current liabilities are paid.

first-order risk
Market-induced or systematic exposure to changes in the general direction of equity, fixed income, currency, and commodity markets that cannot be reduced through diversification.

fiscal agent
An investment dealer appointed by a company or government to advise it in financial matters and to manage the underwriting of its securities.

fiscal policy
The policy pursued by the federal government to influence economic growth through the use of taxation and government spending to smooth out the fluctuations of the **business cycle**.

fiscal year
A company's accounting year. Due to the nature of particular businesses, some companies do not use the calendar year for their bookkeeping. A typical example is the department store that finds December 31 too early a date to close its books after the Christmas rush and so ends its fiscal year on January 31.

fixed asset
A tangible long-term asset such as land, building or machinery, held for use rather than for processing or resale. A **statement of financial position** category.

fixed-dollar withdrawal plan
A systematic withdrawal plan where the fund holder chooses a specified dollar amount to be withdrawn on a monthly or quarterly basis.

fixed exchange rate regime

A country whose central bank maintains the domestic currency at a fixed level against another currency or a composite of other currencies.

fixed-income arbitrage strategy
Attempts to profit from price anomalies between related interest rate securities and their derivatives, including government and non-government bonds, mortgage-backed securities, options, swaps, and forward rate agreements.

fixed-income securities
Securities that generate a predictable stream of interest or **dividend** income, such as **bonds**, **debentures** and **preferred shares**

fixed-period withdrawal plan
A systematic withdrawal plan where a specified amount is withdrawn over a pre-determined period with the intent that all capital will be exhausted when the plan ends.

flat
Means that the quoted market price of a **bond** or **debenture** is its total cost (as opposed to an accrued interest transaction). Bonds and debentures in default of interest trade flat.

float
That part of the issued shares that are outstanding and available for trading by the public, and not held by company officers, directors, or investors who hold a controlling interest in the company. Also known as public float.

floating exchange rate
A country whose central bank allows market forces alone to determine the value of its currency, but will intervene if it thinks the move in the exchange rate is excessive or disorderly.

floating rate
A term used to describe the interest payments negotiated in a particular contract. In this case, a floating rate is one that is based on an administered rate, such as the **Prime Rate**. For example, the rate for a particular note may be 2% over Prime.

floating rate preferred
Dividend payments that fluctuate to reflect changes in interest rates. If interest rates rise, so will dividend payments, and vice versa.

floating-rate securities
A type of debt instrument that offers protection to investors during periods of very volatile interest rates. For example, when interest rates are rising, the interest paid on floating rate debentures is adjusted upwards every six months.

floor trader
Employee of a member of a stock exchange, who executes buy and sell orders on the floor (trading area) of the exchange for the firm and its clients.

forced conversion
When a company's stock rises in value above the **conversion price** a company may force the **convertible** security holder to exchange the security for stock by calling back the security. Faced with receiving a lower **call price** (par plus a call premium) or higher valued shares the investor is forced to convert into **common shares**.

foreign bonds
If a Canadian company issues **debt** securities in another country, denominated in that foreign country's currency, the bond is known as a foreign **bond**. A bond issued in the U.S. payable in U.S. dollars is known as a foreign bond or a "Yankee Bond." See also **Eurobond**.

foreign exchange rate risk
The risk associated with an investment in a foreign security or any investment that pays in a denomination other than Canadian dollars, the investor is subject to the risk that the foreign currency may depreciate in value.

foreign pay bond
A Canadian debt security issued in Canada but pays interest and principle in a foreign currency is known as a foreign pay **bond**. This type of security allows Canadians to take advantage of possible shifts in currency values.

foreign pay preferred
Preferred shares that pay dividends in a foreign currency.

forward
A forward contract is similar to a **futures** contract but trades on an OTC basis. The seller agrees to deliver a specified commodity or financial instrument at a specified price sometime in the future. The terms of a forward contract are not standardized but are negotiated at the time of the trade. There may be no secondary market.

forward agreement
An over-the-counter forward.

frictional unemployment
Unemployment that results from normal labour turnover, from people entering and leaving the workforce and from the ongoing creation and destruction of jobs.

front-end load

A sales charge applied to the purchase price of a **mutual fund** when the fund is originally purchased.

front running
Making a practice, directly or indirectly, of taking the opposite side of the market to clients, or effecting a trade for the advisor's own account prior to effecting a trade for a client.

full employment
The level of unemployment due solely to both frictional and structural factors, or when cyclical unemployment is zero.

full replication
The ETF holds all of the stocks in the same weight as the respective index. The full replication process tracks extremely close to the benchmark index, with minimal tracking error.

full, true, and plain disclosure
The general principle underlying Canadian securities legislation. All pertinent facts by those offering securities for sale to the public must be disclosed.

fully diluted earnings per share
Earnings per common share calculated on the assumption that all **convertible** securities are converted into **common** shares and all outstanding **rights**, **warrants**, **options** and contingent issues are exercised.

fundamental analysis
Security analysis based on fundamental facts about a company as revealed through its financial statements and an analysis of economic conditions that affect the company's business. See also **Technical Analysis**.

funded debt
All outstanding bonds, debentures, notes and similar debt instruments of a company not due for at least one year.

Fund Facts
A disclosure document designed to give mutual fund investors key information about a fund. The document is limited to two double-side pages in length and provides timely information that would be material to an investment decision.

fund of hedge funds
A portfolio of hedge funds overseen by a manager who determines which hedge funds to invest in and how much to invest in each.

futures-based exchange-traded fund

ETFs that invest in futures contracts of different commodities, with an underlying portfolio of money market instruments to cover the full value of the contracts. As near-term contracts approach expiration, they are rolled over into more distant contracts.

futures contract
A contract that signifies an agreement between a futures buyer and futures seller.

G

gatekeeper
Refers to dealers and all of their employees who are responsible for protecting the markets from potentially illegal client activities. Universal Market Integrity Rules set out specific rules that identify the gatekeeper function and formal reporting procedures.

glide path
Changes in the target-date fund's asset allocation mix over time. The fund pursues a growth strategy in its early years by holding more risky assets. It then gradually moves towards less risky assets as the target date approaches. The fund manager adjusts the fund over time, without any action required from the fund holder.

global macro strategy
Invests in all major markets, including equities, bonds, currencies, and commodities with strategy based on predictions for major events affecting entire economies, such as shifts in government policy that alter interest rates, thereby affecting currency, stock, and bond markets.

good delivery form
When a security is sold it must be delivered to the broker properly endorsed, not mutilated and with (if any) coupons attached. To avoid these difficulties and as a general practice most securities are held in street form with the broker.

good faith deposit
A deposit of money by the buyer or seller of a futures product which acts as a financial guarantee as to the fulfilment of the contractual obligations of the futures contract. Also called a performance bond or **margin**.

good through order
An order to buy or sell that is good for a specified number of days and then is automatically cancelled if it has not been filled.

goodwill

Generally understood to represent the value of a well-respected business – its name, customer relations, employee relations, among others. Considered an **intangible asset** on the **statement of financial position**.

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government securities distributors

Typically an investment dealer or bank that is authorized to bid at Government of Canada debt auctions.

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greensheet

Highlights for the firm's sales representatives the salient features of a new issue, both pro and con in order to successfully solicit interest to the general public. Dealers prepare this information circular for in-house use only.

Greenshoe option

An activity used to stabilize the aftermarket price of a recently issued security. If the price increases above the offer price, dealers can cover their short position by exercising an overallotment option (also referred to as a greenshoe option) by either increasing demand in the case of covering a short position or increasing supply in the case of over-allotment option exercise.

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gross domestic product (GDP)

The value of all goods and services produced in a country in a year.

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gross profit

The amount remaining after the cost of sales is subtracted from revenue.

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gross profit margin

A **profitability ratio** that shows the company's rate of profit after allowing for cost of sales.

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growth industry

An industry in which sales and earnings are consistently expanding at a faster rate than in most other industries.

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growth stock

Common stock of a company with excellent prospects for above-average growth; a company which over a period of time seems destined for above-average expansion.

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guaranteed amount

The minimum amount payable under **death benefits** or **maturity guarantees** provided for under the terms of the **segregate fund** contract.

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guaranteed bonds

Bonds issued by a crown corporation but guaranteed by the applicable government as to interest and principal payments.

guaranteed income supplement (GIS)
A pension payable to **OAS** recipients with no other or limited income.

guaranteed investment certificate (GIC)
A deposit instrument most commonly available from trust companies, requiring a minimum investment at a predetermined rate of **interest** for a stated term. Generally nonredeemable prior to maturity but there can be exceptions.

H

halt in trading
A temporary halt in the trading of a security to allow significant news to be reported and widely disseminated. Usually the result of a pending merger or a substantial change in dividends or earnings.

head-and-shoulders formation
A trend reversal pattern that can occur either at a market top, called a head-and-shoulders top formation, or at a market bottom, called an inverse head-and-shoulders or head-and-shoulders bottom formation. The formation consists of a shoulder, a head, and a second shoulder and the breaking of a neckline.

hedge funds
Lightly regulated pools of capital in which the hedge fund manager invests a significant amount of his or her own capital into the fund and whose offering memorandum allows for the fund to execute aggressive strategies that are unavailable to mutual funds such as short selling.

hedging
A protective manoeuvre; a transaction intended to reduce the risk of loss from price fluctuations.

high frequency trading (HFT)
A sub-set of algorithmic trading. High frequency trading is characterized by a very large number of orders for individual trades of very small size done at extremely high speed.

high-water mark
Used in the context of how a hedge fund manager is compensated. The high-water mark sets the bar above which the fund manager is paid a portion of the profits earned for the fund.

high-yield bond strategy
Investing, generally using little or no leverage, in high-yield debt securities (also known as junk bonds) of a company the manager feels may get a credit upgrade or is a potential takeover target.

holding period return
A transactional **rate of return** measure that takes into account all **cash flows** and increases or decreases in a security's value for any time frame. Time frames can be greater or less than a year.

household account
A type of separately managed account that involves the coordination of holdings across a family or household. In this approach, one overall portfolio model is used to coordinate investment management within and across accounts for the family or the household.

hurdle rate
The rate that a hedge fund must earn before its manager is paid an incentive fee.

hypothecate
To pledge securities as collateral for a loan. Referred to as collateral assignment or hypotec in Québec for **segregated funds**.

I

ICE NGX Canada
A natural gas exchange, headquartered in Calgary, Alberta that provides electronic trading, central counterparty clearing and data services to the North American natural gas and electricity markets.

incentive fee
A fee based on performance paid to the fund manager. Incentive fees are usually calculated after management fees and expenses are deducted, rather than on the gross return earned by the manager.

income splitting
A tax planning strategy whereby the higher-earning spouse transfers income to the lower-earning spouse to reduce taxable income.

income tax act (ITA)

The legislation dictating the process and collection of federal tax in Canada, administered by Canada Revenue Agency.

income trusts
A type of **investment trust** that holds investments in the operating assets of a company. Income from these operating assets flows through to the trust, which in turn passes on the income to the trust unitholders.

index
A measure of the market as measured by a basket of securities. An example would be the S&P/TSX Composite Index or the S&P 500. Fund managers and investors use a stock index to measure the overall direction and performance of the market.

index fund
Sets out to match the performance of a broad market index, such as the S&P/TSX Composite Index or the FTSE Canada Universe Bond Index. Index funds are typically categorized under the type of asset class they tend to replicate.

index-linked notes
A hybrid investment product that combines the safety of a deposit instrument with some of the growth potential of an equity investment. They have grown in popularity, particularly among conservative investors who are concerned with safety of capital but want yields greater than the interest on standard interest bearing GICs or other term deposits.

indexing
A portfolio management style that involves buying and holding a portfolio of securities that matches, closely or exactly, the composition of a benchmark **index**.

individual variable insurance contract (IVIC)
The term used in the IVIC Guidelines to describe a **segregated fund** contract.

inflation
A generalized, sustained trend of rising prices.

inflation rate
The rate of change in prices. See also **Consumer Price Index**.

inflation rate risk
The risk that the value of financial assets and the purchasing power of income will decline due to the impact of **inflation** on the real returns produced by those financial assets.

information circular

Document sent to shareholders with a **proxy**, providing details of matters to come before a shareholders' meeting.

initial public offering (IPO)
A new issue of securities offered to the public for investment for the very first time. IPOs must adhere to strict government regulations as to how the investments are sold to the public.

initial sales charge
A commission paid to the financial adviser at the time that the policy is purchased. This type of sales charge is also known as an acquisition fee or a **front-end load**.

in-kind exchange
The process where a basket of stocks is exchanged for ETF units, rather than for cash.

insider
All directors and senior officers of a corporation and those who may also be presumed to have access to nonpublic or inside information concerning the company; also anyone owning more than 10% of the voting shares in a corporation. Insiders are prohibited from trading on this information.

insider report
A report of all transactions in the shares of a company by those considered to be insiders of the company and submitted each month to securities commissions.

insider trading
Trading in a security by someone who has access to non-public material information.

instalment debentures
A bond or **debenture** issue in which a predetermined amount of principal matures each year.

instalment receipts
A new issue of stock sold with the obligation that buyers will pay the issue price in a specified series of instalment payments instead of one lump sum payment. Also known as Partially Paid Shares.

institutional client
A legal entity that represents the collective financial interests of a large group. A mutual fund, insurance company, pension fund and corporate treasury are just a few examples.

institutional firm
Investment dealer that serves institutional clients exclusively.

institutional investor
Organizations, such as pension and mutual fund companies, that trade in large-share quantities or dollar amounts. They typically have a steady flow of money to invest.

institutional salesperson
Their main role is to be a relationship manager, serving as the liaison between the institutional dealer and client.

institutional trader
Their main role is to execute orders on behalf of clients (as an agency trader) or on behalf of the dealer (as a liability trader).

insurable interest
A person is considered to have an insurable interest in the life or health of another person from whom they derive a financial or other kind of benefit from that person.

intangible asset
An **asset** having no physical substance (e.g., **goodwill**, patents, franchises, copyrights).

integrated firm
Investment dealer that offers products and services that cover all aspects of the industry, including full participation in both the institutional and the retail markets.

inter-dealer broker
A broker that acts as a financial intermediary between investment dealers to facilitate inter-dealer transactions.

interest
Money charged by a lender to a borrower for the use of his or her money.

interest coverage ratio
A **debt ratio** that tests the ability of a company to pay the interest charges on its debt and indicates how many times these charges are covered based upon earnings available to pay them.

interest rate
The proportion of the loan calculated as interest that is payable by the borrower. Also referred to as the cost of credit.

interest rate risk
The risk that changes in interest rates will adversely affect the value of an investor’s portfolio. For example, a portfolio with a large holding of long-term bonds is vulnerable to significant loss from changes in interest rates.

International Financial Reporting Standards (IFRS)
A globally accepted high-quality accounting standard already used by public companies in over 100 countries around the world.

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interval funds
A type of **mutual fund** that has the flexibility to buy back its outstanding shares periodically. Also known as closed-end discretionary funds.

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in-the-money
A call option is in-the-money if its strike price is below the current market price of the underlying security. A **put option** is in-the-money if its strike price is above the current market price of the underlying security. The in-the-money amount is the option's **intrinsic value**.

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intrinsic value
That portion of a **warrant** or **call** option's price that represents the amount by which the market price of a security exceeds the price at which the warrant or call option may be exercised (exercise price). Considered the theoretical value of a security (i.e., what a security should be worth or priced at in the market).

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inventory
The goods and supplies that a company keeps in stock. A **statement of financial position** item.

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inventory turnover ratio
Cost of sales divided by **inventory**. The ratio may also be expressed as the number of days required to sell current inventory by dividing the ratio into 365.

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inverse ETF
An ETF that seeks to replicate, net of expenses, the inverse performance of a reference index.

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investment
The use of money to make more money, to gain income or increase capital or both.

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investment advisor (IA)
An individual licensed to transact in the full range of securities. IAs must be registered by the securities commission of the province in which he or she works. The term refers to employees of **SRO** member firms only. Also known as a Registrant or Registered Representative (RR).

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investment banker
Responsible for building the dealer's business with respect to corporate and public finance, and mergers and acquisition services.

investment boutique
A small retail or institutional investment dealer that specializes in a specific market segment such as stock trading, bond trading, unlisted stocks, arbitrage, portfolio management, targeted industry research, underwriting junior mines, oils and industrials, mutual fund distributions, or tax-shelter sales.

investment company
A company which uses its capital to invest in other companies. See also **Investment Fund**.

investment counsellor
A professional engaged to give investment advice on securities for a fee.

investment dealer
A person or company that engages in the business of trading in securities in the capacity of an agent or principal and is a member of IIROC.

investment fund
A fund or company that sells units or shares and invests the proceeds in a portfolio of securities. There are two principal types: **closed-end** and **open-end** or **mutual fund**. Shares in closed-end investment companies are readily transferable in the open market and are bought and sold like other shares. Capitalization is fixed. Open-end funds sell their own new shares to investors, buy back their old shares, and are not listed. Open-end funds are so-called because their capitalization is not fixed; they normally issue more shares or units as people want them.

Investment Industry Association of Canada (IIAC)
A member-based professional association that represents the interests of market participants.

Investment Industry Regulatory Organization of Canada (IIROC)
The Canadian investment industry's national self-regulatory organization. IIROC carries out its regulatory responsibilities through setting and enforcing rules regarding the proficiency, business and financial conduct of dealer firms and their registered employees and through setting and enforcing market integrity rules regarding trading activity on Canadian equity marketplaces.

investment policy statement
The agreement between a portfolio manager and a client that provides the guidelines for the manager.

investment representative
A person who is licensed to sell securities but is not permitted to give investment advice.

investments in associates
The ownership a company has in another company. As a general rule, significant influence is presumed to exist when a company owns 20% or more of the voting rights of the other company.

investor
One whose principal concern is the minimization of risk, in contrast to the **speculator**, who is prepared to accept calculated risk in the hope of making better-than-average profits, or the gambler, who is prepared to take even greater risks.

irrevocable beneficiary
A beneficiary whose entitlements under the **segregated fund** contract cannot be terminated or changed without his or her consent.

irrevocable designation
A contract where the beneficiary's entitlements under the segregated fund contract cannot be terminated or changed without his or her consent.

issue
Any of a company's securities; the act of distributing such securities.

issued shares
That part of **authorized shares** that have been sold by the corporation and held by the shareholders of the company.

J

junior bond issue
A corporate bond issue, the collateral for which has been pledged as security for other more senior debt issues and is therefore subject to these prior claims.

junior debt
One or more **junior bond issues**.

K

Know Your Client rule (KYC)
The cardinal rule in making investment recommendations. All relevant information about a client must be known in order to ensure that the registrant's recommendations are suitable.

kurtosis
Measures the tendency of a return distribution either to have values that collect around the average of all returns (lower kurtosis) or conversely, to have values that collect towards the tails of the distribution (higher kurtosis).

L

labour force
The sum of the population aged 15 years and over who are either employed or unemployed.

labour-sponsored venture capital corporations (LSVCC)
LSVCCs are investment funds, sponsored by labour organizations, that have a specific mandate to invest in small to medium-sized businesses. To encourage this mandate, governments offer generous tax credits to investors in LSVCCs.

lagging indicators
A selection of statistical data, that on average, indicate highs and lows in the business cycle behind the economy as a whole. These relate to business expenditures for new plant and equipment, consumers' instalment credit, short-term business loans, the overall value of manufacturing and trade inventories.

Large Value Transfer System (LVTS)
A Payments Canada electronic system for the transfer of large value payments between participating financial institution.

last price
The price at which the last trade on a stock occurred. See also **Market Price**.

leading indicators
A selection of statistical data that, on average, indicate highs and lows in the business cycle ahead of the economy as a whole. These relate to employment, capital investment, business starts and failures, profits, stock prices, inventory adjustment, housing starts and certain commodity prices.

LEAPS
Long Term Equity Anticipation Securities are long-term (2-3 year) option contracts.

leverage
The effect of fixed charges (i.e., debt interest or preferred dividends, or both) on per-share earnings of **common** stock. Increases or decreases in income before fixed charges result in

magnified percentage increases or decreases in **earnings per common share**. Leverage also refers to seeking magnified percentage returns on an investment by using borrowed funds, **margin accounts** or securities which require payment of only a fraction of the underlying security's value (such as rights, warrants or options).

leveraged ETF

An ETF that delivers daily investment results that correspond to a multiple of the daily performance of a reference index.

liabilities

Debts or obligations of a company, usually divided into **current liabilities**—those due and payable within one year—and long-term liabilities—those payable after one year. A **statement of financial position** category.

liability traders

Have the responsibility to manage a dealer's trading capital to encourage market flows and facilitate the client orders that go into the market, while aiming to lose as little of that capital as possible. Liability traders can be considered those who set the direction for **agency traders**. Whereas agency traders have formal client responsibilities, liability traders have lighter responsibilities or none at all.

life cycle hypothesis

A model used in financial planning that tries to link age with investing. The underlying theory is that an individual's asset mix will change, as they grow older. However the life cycle is not a substitute for the "know your client rule".

life expectancy-adjusted withdrawal plan

Withdrawals are designed to deplete the entire investment by the end of the plan, while providing as high an income as possible during the plan holder's expected lifetime. The amount withdrawn on each date is based on periods that are continually readjusted to the changing life expectancy of the plan holder. Readjustments are based on mortality tables.

limit order

A client's order to buy or sell securities at a specific price or better. The order will only be executed if the market reaches or betters that price.

limited liability

The word limited at the end of a Canadian company's name implies that liability of the company's shareholders is limited to the money they paid to buy the shares. By contrast, ownership by a **sole proprietor** or **partnership** carries unlimited personal legal responsibility for debts incurred by the business.

limited partnership

A type of partnership whereby a limited partner cannot participate in the daily business activity and liability is limited to the partner's investment.

linked notes
A debt instrument that guarantees the invested capital and whose return is based on the return of an underlying investment like an index.

liquid bond
Bonds that trade in significant volumes and can be made quickly without a significant sacrifice on the price.

liquidity
1. The ability of the market in a particular security to absorb a reasonable amount of buying or selling at reasonable price changes. 2. A corporation's current assets relative to its current liabilities; its cash position.

liquidity preference theory
A theory that tries to explain the shape of the **yield curve**. It postulates that investors want to invest for the short-term because they are risk averse. Borrowers, however, want long-term money. In order to entice investors to invest long-term, borrowers must offer higher rates for longer-term money. This being the case, the yield curve should slope upwards reflecting the higher rates for longer borrowing periods.

liquidity ratios
Financial ratios that are used to judge the company's ability to meet its short-term commitments. See **Current Ratio**.

liquidity risk
The risk that an investor will not be able to buy or sell a security quickly enough because buying or selling opportunities are limited.

listed stock
The stock of a company which is traded on a stock exchange.

listing agreement
A stock exchange document published when a company's shares are accepted for listing. It provides basic information on the company, its business, management, assets, capitalization and financial status.

load
The portion of the offering price of shares of most open-end investment companies (**mutual funds**) which covers sales commissions and all other costs of distribution.

lock-up period

The time during which initial investments cannot be redeemed from a hedge fund.

london interbank offered rate (LIBOR)
The rate of interest charged by large international banks dealing in Eurodollars to other large international banks.

long position
Signifies ownership of securities. “I am long 100 BCE common” means that the speaker owns 100 **common shares** of BCE Inc.

long/short equity strategy
Managers try to buy stocks they feel will rise more in a bull market than the overall market and sell short stocks that will rise less. In a down market, good short selections are expected to decline more than the market and good long selections will fall less.

Long-Term Equity Anticipation Security
Long-term (2-3 year) option contracts. Also known as LEAPS.

long-term bond
A bond with greater than 10 years remaining to maturity.

low load
Similar to a back-end load, but with a shorter fee schedule such as three years

M

macroeconomics
Macroeconomics focuses on the performance of the economy as a whole. It looks at the broader picture and to the challenges facing society as a result of the limited amounts of natural resources, human effort and skills, and technology.

major trend
Underlying price trend prevailing in a market despite temporary declines or rallies.

managed account
An account whereby a licensed portfolio manager has the discretion to decide and execute suitable investment decisions on behalf of clients.

managed product
A pool of capital gathered to buy securities according to a specific investment mandate. The pool seeds a fund managed by an investment professional that is paid a management fee to

carry out the mandate.

management expense ratio
The total expense of operating a **mutual fund** expressed as a percentage of the fund's **net asset value**. It includes the **management fee** as well as other expenses charged directly to the fund such as administrative, audit, legal fees etc., but excludes brokerage fees. Published rates of return are calculated after the management expense ratio has been deducted.

management fee
The fee that the manager of a **mutual fund** or a **segregated fund** charges the fund for managing the portfolio and operating the fund. The fee is usually set as fixed percentage of the fund's net asset value.

managers' discussion and analysis (MD&A)
A document that requires management of an issuer to discuss the dynamics of its business and to analyze its financial statements with the focus being on information about the issuer's financial condition and operations with emphasis on liquidity and capital resources.

margin
The amount of money paid by a client when he or she uses credit to buy a security. It is the difference between the market value of a security and the amount loaned by an investment dealer.

margin account
Account used to buy or sell securities on partial credit. In such cases, the client pays only a portion of the purchase price and the investment dealer lends the balance to the client. Short sales can only take place in a margin account.

Margin Account Agreement Form
A contract that must be completed and signed by a client and approved by the firm in order to open a margin account. This sets out the terms and conditions of the account.

margin call
When an investor purchases an account on margin in the expectation that the share value will rise, or shorts a security on the expectation that share price will decline, and share prices go against the investor, the brokerage firm will send out a margin call requiring that the investor add additional funds or marketable securities to the account to protect the broker's loan.

marginal tax rate
The tax rate that would have to be paid on any additional dollars of taxable income earned

market

Any arrangement whereby products and services are bought and sold, either directly or through intermediaries.

market economy
An economic system where the decisions regarding investment, production, and distribution of goods and services are guided by the price signals created by the forces of supply and demand.

MarketAxess
Provides market data and a trading platform with access to multi-dealer competitive pricing for a wider range of corporate bonds and other types of fixed-income instruments. MarketAxess is a member of IIROC.

market capitalization
The dollar value of a company based on the market price of its issued and outstanding common shares. It is calculated by multiplying the number of outstanding shares by the current market price of a share.

market-linked guaranteed investment certificate
Market-linked GICs combine the guarantee of the principal invested with some of the growth potential of an underlying market in the form of a stock index, mutual fund or ETF.

market maker
A trader employed by a securities firm who is authorized and required, by applicable self-regulatory organizations (SROs), to maintain reasonable liquidity in securities markets by making firm bids or offers for one or more designated securities.

market order
An order placed to buy or sell a security immediately at the best current price.

market price
The price at which the last trade on a stock occurred. See also **Last Price**.

market risk
The non-controllable or systematic risk associated with equities.

market segmentation theory
A theory on the structure of the **yield** curve. It is believed that large institutions shape the yield curve. The banks prefer to borrow short term while the insurance industry, with a longer horizon, prefers long-term money. The supply and demand of the large institutions shapes the curve.

marketability

A measure of the ability to buy and sell a security. A security has good marketability if there is an active secondary market in which it can be easily bought and sold at a fair price.

marketable bonds
Bonds for which there is a ready market (i.e., clients will buy them because the prices and features are attractive).

marking to market
The process in the futures market in which the daily price changes are paid by the parties incurring losses to the parties earning profits.

married put or a put hedge
The purchase of an underlying asset and the purchase of a put option on that underlying asset.

material change
A change in the affairs of a company that is expected to have a significant effect on the market value of its securities.

material fact
A fact that would be expected to have an effect on the market value of its securities if the fact was expressed.

mature industry
An industry that experiences slower, more stable growth rates in profit and revenue than growth or emerging industries, for example.

maturity
The date on which a loan or a **bond** or **debenture** comes due and is to be paid off.

maturity date
The date at which the contract expires, and the time at which any **maturity guarantees** are based. Segregated fund contracts normally mature in 10 years, although companies are allowed to set longer periods. Maturities of less than 10 years are permitted only for funds such as protected mutual funds, which are regulated as securities and are not segregated funds.

maturity guarantee
The minimum dollar value of the contract after the guarantee period, usually 10 years. This amount is also known as the annuity benefit.

maximum drawdown
The largest drawdown during a specific period.

medium-term bond
A bond with 5 to 10 years remaining to maturity.

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merger strategy
Investing simultaneously in long and short positions of the common stock of companies involved in a proposed merger or acquisition, usually involving taking a long position in the company being acquired and a short position in the acquiring company. Also known as risk arbitrage strategy.

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microeconomics
Analyzes the market behaviour of individual consumers and firms, how prices are determined, and how prices determine the production, distribution, and use of goods and services.

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minimum investment exemption
An investor exemption from receiving a prospectus based on a prescribed minimum investment. NI 45-106 sets the minimum across Canada at $150,000.

Modified Dietz method
This method of fund valuation reduces the extensive calculations of the daily valuation method by providing a good approximation. It assumes a constant rate of return through the period, eliminating the need to value the portfolio on the date of each cash flow. The Modified Dietz method weights each cash flow by the length of time it is held in the portfolio.

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monetarists
School of economic theory which states that the level of prices as well as economic output is determined by an economy's money supply. This school of thought believes that control of the money supply is more vital to economic prosperity than the level of government spending, for example. See also **Keynesian Policy**.

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monetary aggregates
An aggregate that measures the quantity of money held by a country's households, firms and governments. It includes various forms of money or payment instruments grouped according to their degree of liquidity, such as M1, M2 or M3.

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monetary policy
Economic policy designed to improve the performance of the economy by regulating money supply and credit. The Bank of Canada achieves this through its influence over short-term interest rates.

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money market
That part of the **capital** market in which short-term financial obligations are bought and sold. These include **treasury bills** and other federal government securities, and **commercial paper**, and **bankers' acceptances** and other instruments with one year or less left to

maturity. Longer term securities, when their term shortens to the limits mentioned, are also traded in the money market.

money purchase plan (MPP)
A type of **Registered Pension Plan** where the amount contributed is known but the dollar amount of the pension to be received is unknown. Also called a defined contribution plan..

Montréal Exchange (ME)
See **Bourse de Montréal**.

mortgage
A contract specifying that certain property is pledged as security for a loan.

mortgage-backed securities
Bonds that claim ownership to a portion of the cash flows from a group or pool of mortgages. They are also known as mortgage pass-through securities. A servicing intermediary collects the monthly payments from the issuers and, after deducting a fee, passes them through (i.e., remits them) to the holders of the security. The MBS provides liquidity in an otherwise illiquid market. Every month, holders receive a proportional share of the interest and principal payments associated with those mortgages.

mortgage bond
A bond issue secured by a **mortgage** on the issuer's property.

mortgage pass-through securities
See **Mortgage-Backed Securities**.

moving average
The average of security or commodity prices calculated by adding the closing prices for the underlying security over a pre-determined period and dividing the total by the time period selected.

multi-disciplinary accounts
Fee-based accounts that are an evolution of separately managed accounts. With multi-disciplinary accounts, separate models are combined into one overall portfolio model in a single account.

multi-manager accounts
A type of fee-based account that offers clients and their advisors more choice in terms of product and services. Often, clients are aligned with two or more portfolio models and each portfolio model is a component of the client's greater diversified holdings.

multiple

A colloquial term for the **price-to-earnings** ratio of a company's common shares.

mutual fund
An **investment fund** operated by a company that uses the proceeds from shares and units sold to investors to invest in stocks, bonds, derivatives and other financial securities. Mutual funds offer investors the advantages of diversification and professional management and are sold on a load or no load basis. Mutual fund shares/units are redeemable on demand at the fund's current **net asset value per share** (NAVPS).

Mutual Fund Dealers Association (MFDA)
The Self-Regulatory Organization (SRO) that regulates the distribution (dealer) side of the mutual fund industry in Canada.

Mutual Fund Dealers Association Investor Protection Corporation
Provides protection for eligible customers of insolvent MFDA member firms.

mutual fund wraps
Are established with a selection of individual funds managed within a client's account. Mutual fund wraps differ from funds of funds. The client holds the actual funds within their account, as opposed to a fund that simply invests in other funds. In most cases, a separate account is established for the client and the selected funds are held inside that dedicated account.

naked call
A seller of a call option contract who does not own an offsetting position in the underlying security or a suitable alternative.

naked writer
A seller of an **option** contract who does not own an offsetting position in the underlying security or a suitable alternative.

NASDAQ
An acronym for the National Association of Securities Dealers Automated Quotation System. NASDAQ is a computerized system that provides brokers and dealers with price quotations for securities traded OTC.

national debt
The accumulation of total government borrowing over time .It is the sum of past deficits minus the sum of past surpluses.

national policies

The Canadian Securities Administrators have developed a number of policies that are applicable across Canada. These coordinated efforts by the CSA are an attempt to create a national securities regulatory framework. Copies of policies are available from each provincial regulator.

National Do Not Call List (DNCL)

The Canadian Radio-television and Telecommunications Commission (CRTC) has established Rules that telemarketers and organizations that hire telemarketers must follow. The DNCL Rules prohibit telemarketers and clients of telemarketers from calling telephone numbers that have been registered on the DNCL for more than 31 days.

National Instrument 81-101

This legislation deals with mutual fund prospectus and Fund Facts disclosure.

National Instrument 81-102

This legislation, and its companion policy, contain requirements and guidelines for the distribution and advertising of mutual funds.

National Registration Database (NRD)

A web-based system that permits mutual fund salespersons and investment advisors to file applications for registration electronically.

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natural unemployment rate

Also called the full employment unemployment rate. At this level of unemployment, the economy is thought to be operating at close to its full potential or capacity.

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neckline

The line joining the two recovery points in a head-and-shoulders formation. The breaking of a neckline, either a downside break-out or upside break-out, accompanied by increased volume may be considered confirmation of a change in trend.

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negative pledge provision

A protective provision written into the trust indenture of a company's debenture issue providing that no subsequent mortgage bond issue may be secured by all or part of the company's assets, unless at the same time the company's debentures are similarly secured.

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negotiable bond

A bond certificate that is transferable by delivery and which, in the case of a registered certificate, has been duly endorsed and guaranteed.

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negotiated offer

A term describing a particular type of financing in which the investment dealer negotiates with the corporation on the issuance of securities. The details would include the type of security to be issued, the price, coupon or dividend rate, special features and protective provisions.

NEO Exchange

An exchange that provides listing services and facilitates trading in securities listed on the NEO Exchange, TSX, and the TSX Venture Exchange.

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net asset value

For a **mutual fund**, net asset value represents the market value of the fund's share and is calculated as total assets of a corporation less its liabilities. Net asset value is typically calculated at the close of each trading day. Also referred to as the **book value** of a company's different classes of securities.

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net asset value per share

For a **mutual fund**, net asset value per share represents the market value of the fund's share per unit and is calculated as total assets of a corporation less its liabilities, then divided by the total units outstanding.

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net change

The change in the price of a security from the closing price on one day to the closing price on the following trading day. In the case of a stock which is entitled to a **dividend** one day, but is traded ex-dividend the next, the dividend is not considered in computing the change. The same applies to **stock splits**. A stock selling at $100 the day before a two-for-one split and trading the next day at $50 would be considered unchanged. The net change is ordinarily the last figure in a stock price list. The mark +1.10 means up $1.10 a share from the last sale on the previous day the stock traded.

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net current assets

See **working capital**

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net profit margin

A **profitability ratio** that indicates how efficiently the company is managed after taking into account both expenses and taxes.

New Account Application Form (NAAF)

A form that is filled out by the client and the IA at the opening of an account. It gives relevant information to make suitable investment recommendations. The NAAF must be completed and approved before any trades are put through on an account.

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new issue

An offering of stocks or bonds sold by a company for the first time. Proceeds may be used to retire outstanding securities of the company, to purchase fixed assets or for additional

working capital. New debt issues are also offered by government bodies.

New York Stock Exchange (NYSE)
Oldest and largest stock exchange in North America with more than 1,600 companies listed on the exchange.

NEX
A new and separate board of the TSX Venture Exchange that provides a trading forum for companies that have fallen below the Venture Exchange's listing standards. Companies that have low levels of business activity or who do not carry on active business will trade on the NEX board, while companies that are actively carrying on business will remain with the main TSX Venture Exchange stock list.

Nodal Exchange
A derivatives exchange that provides contracts to participants in the North American energy markets.

no-load fund
A fund that does not charge a fee to purchase or redeem units.

no par value (n.p.v.)
Indicates a common stock has no stated face value.

nominal gross domestic product
Gross domestic product based on prices prevailing in the same year not corrected for inflation. Also referred to as current dollar or chained dollar GDP.

nominal interest rate
The quoted or stated rate on an investment or a loan. This rate allows for comparisons but does not take into account the effects of inflation.

nominal rate
The quoted or stated rate.

nominee
A person or firm (bank, investment dealer, CDS) in whose name securities are registered. The shareholder, however, retains the true ownership of the securities.

non-callable preferred
Preferred shares with a feature that prevents the shares from being redeemed by the issuer.

non-client and professional orders

A type of order for the account of partners, directors, officers, major shareholders, IAs and employees of member firms that must be marked “PRO” , “N-C” or “Emp”, in order to ensure that client orders are given priority for the same securities.

non-competitive tender

A method of distribution used in particular by the Bank of Canada for Government of Canada marketable bonds. **Primary** distributors are allowed to request **bonds** at the average price of the accepted **competitive tenders**. There is no guarantee as to the amount, if any, received in response to this request.

non-controlling interest

1. The equity of the shareholders who do not hold controlling interest in a controlled company; 2. In **consolidated financial statements** (i) the item in the **statement of financial position** of the parent company representing that portion of the **assets** of a consolidated subsidiary considered as accruing to the shares of the subsidiary not owned by the parent; and (ii) the item deducted in the **statement of comprehensive income** of the parent and representing that portion of the subsidiary’s earnings considered as accruing to the subsidiary’s shares not owned by the parent.

non-cumulative

A preferred dividend that does not accrue or accumulate if unpaid.

non-current asset

Assets which in the normal course of business would not be converted into cash. Noncurrent assets include property, plant, and equipment.

non-current liability

Money owed but not due to be paid within a year. Noncurrent liabilities include long-term debt and deferred tax.

non-systematic risk

Also known as specific risk. Non-systematic risk is the risk that the price of a specific security or a specific group of securities will change in price to a different degree or in a different direction from the market as a whole.

notional units

A unit that exists in theory and is representative of something else.

odd lot

A number of shares which is less than a **standard trading unit**. Usually refers to a securities trade for less than 100 shares, sometimes called a broken lot. Trading in less than 100 shares typically incurs a higher per share commission.

of record

On the company's books or records. If, for example, a company announces that it will pay a **dividend** on January 15 to shareholders of record, every shareholder whose name appears on the company's books on that date will be sent a dividend cheque from the company.

offer

The lowest price at which a person is willing to sell; as opposed to bid which is the highest price at which one is willing to buy.

offering memorandum

This document is prepared by the dealer involved in a new issue outlining some of the salient features of the new issue, but not the price or other issue-specific details. It is used as a pre-marketing tool in assessing the market for the issue as well as for obtaining expressions of interest.

offering memorandum exemption

The offering memorandum exemption waives the requirement for a fund to be distributed with a prospectus.

offering price

The price that an investor pays to purchase shares in a **mutual fund**. The offering price includes the charge or load that is levied when the purchase is made.

offsetting transaction

A futures or option transaction that is the exact opposite of a previously established long or short position.

Office of the Superintendent of Financial Institutions (OSFI)

The federal regulatory agency whose main responsibilities regarding insurance companies and **segregated funds** are to ensure that the companies issuing the funds are financially solvent.

officers

Corporate employees responsible for the day-to-day operation of the business.

old age security (OAS)

A government pension plan payable at age 65 to all Canadian citizens and legal residents.

Ombudsman for Banking Services and Investments (OBSI)

An independent organization that investigates customer complaints against financial services providers.

on-stop buy order
Also known as a stop buy order, it is the opposite of an on-stop sell order – that is, an order to buy a stock at or above a certain price. On-stop buy orders are used to protect a short position when the stock's price is rising, or to ensure that a stock is purchased while its price is rising.

on-stop orders
Orders that are used to buy or sell after a stock has reached a certain price. See on-**stop buy orders**, on-**stop sell orders, stop buy orders, stop loss orders**.

on-stop sell order
Also known as a stop loss order, it is an order that is specifically used in connection with a sell order where the limit price is below the existing market price. The order is triggered when the stock drops to the specified level. The purpose is to reduce the amount of loss that might be incurred or to protect at least part of a paper profit when a stock's price declines...

origination
The process of bringing new debt issues to market.

open-end fund
See **Mutual Fund**.

open-end trust
The most common structure for a mutual fund. An unincorporated open-end trust structure allows the trust to avoid taxation by flowing capital gains and income, net of fees and expenses, to unit holders.

open interest
The total number of outstanding option contracts for a particular **option** series. An opening transaction would increase open interest, while a closing transaction would decrease open interest. It is used as one measure of an option class's liquidity.

open market operations
Method through which the Bank of Canada influences interest rates by trading securities with participants in the money market.

opening transaction
An option transaction that is considered the initial or primary transaction. An opening transaction creates new rights for the buyer of an **option**, or new obligations for a seller. See also **Closing Transaction**.

operating band
The Bank of Canada's 50-basis-point range for the overnight lending rate. The top of the band, the **Bank Rate**, is the rate charged by the Bank on **LVTS** advances to financial institutions. The bottom of the band is the rate paid by the Bank on any **LVTS** balances held overnight by those institutions. The middle of the operating band is the target for the overnight rate.

operating income
The income that a company records from its main ongoing operations.

operating performance ratios
A type of ratio that illustrates how well management is making use of company resources.

operational risk
The significant risk of potential system failures, as well as faulty settlement, reporting, and accounting procedures, that can be part of the small newly created businesses that typify alternative strategy funds.

option
A right to buy or sell specific securities or properties at a specified price within a specified time. See **Put Options** and **Call Options**.

option premium
The amount paid to enter into an option contract, paid by the buyer to the seller or writer of the contract.

option writer
The seller of the option who may be obligated to buy (put writer) or sell (call writer) the underlying interest if assigned by the option buyer.

order flow
The total amount of equity trades shown to a dealer's traders by its institutional clients.

oscillator
A **technical analysis** indicator used when a stock's chart is not showing a definite trend in either direction. When the oscillator reading reaches an extreme value in either the upper or lower band, this suggest that the current price move has gone too far. This may indicate that the price move is overextended and vulnerable.

out-of-the-money
A **call option** is out-of-the-money if the market price of the underlying security is below its **strike price**. A **put option** is out-of-the-money if the market price of the underlying security is above the strike price.

output gap
The difference between the actual level of output and the potential level of output when the economy is using all available resources of capital and labour.

outstanding shares
That part of **issued shares** which remains outstanding in the hands of investors.

over-allotment option
An activity used to stabilize the aftermarket price of a recently issued security. If the price increases above the offer price, dealers can cover their short position by exercising an overallotment option (also referred to as a **greenshoe** option) by either increasing demand in the case of covering a short position or increasing supply in the case of over-allotment option exercise.

overcontribution
An amount made in excess to the annual limit made to an **RRSP**. An overcontribution in excess of$2,000 is penalized at a rate of 1% per month.

overlay manager
The overlay manager works with advisors in servicing clients. This is not a referral but a partnership, in which the advisor retains the client's assets. The service incorporates the existing trusted relationship of the advisor, whom the client has become comfortable dealing with.

over-the-counter (OTC)
A market for securities made up of securities dealers who may or may not be members of a recognized stock exchange. Over-the-counter is mainly a market conducted over the telephone. Also called the **unlisted**, inter-dealer or street market. NASDAQ is an example of an over-the- counter market.

overnight rate
The interest rate set in the overnight market.

overnight repo
A transaction where the Bank of Canada offers to purchase securities from financial institutions with an agreement to sell them back the next business day at a predetermined price. Also known as a special purchase and resale agreement or SRA.

overnight reverse repo
A transaction where the Bank of Canada offers to sell securities to financial institutions with an agreement to buy them back the next business day at a predetermined price. Also known as a sale and repurchase agreement or SRA.

P

paper profit
An unrealized profit on a security still held. Paper profits become realized profits only when the security is sold. A paper loss is the opposite to this.

par value
The stated **face value** of a **bond** or stock (as assigned by the company's charter) expressed as a dollar amount per share. Par value of a common stock usually has little relationship to the current market value and so no par value stock is now more common. Par value of a **preferred** stock is significant as it indicates the dollar amount of assets each preferred share would be entitled to should the company be liquidated.

pari passu
A legal term meaning that all securities within a series have equal rank or claim on earnings and assets. Usually refers to equally ranking issues of a company's **preferred** shares.

participating preferred
Preferred shares which, in addition to their fixed rate of prior dividend, share with the **common** in further **dividend** distributions and in capital distributions above their par value in liquidation.

participation rate
The share of the working-age population (15 and older) that is in the labour market, either working or looking for work. Also, the limit on the return paid by an issuer to an investor is known as the participation rate.

partnership
A form of business organization that involves two or more people contributing to the business and legislated under the federal Partnership Act.

passive investment strategy
The investor or manager employing a passive investment strategy would attempt to replicate the performance of a specific market index without trying to beat it.

passive management
Managers of passively managed funds do not make security selections; they assume only the systematic risk associated with investing in a particular asset class. The most common type of passively managed fund is one that attempts to replicate the returns of a market index.

past service pension adjustment (PSPA)

An employer may increase a member's pension by the granting of additional past service benefits to an employee in a **defined benefit plan**. Plan members who incur a PSPA will have their **RRSP** contribution room reduced by the amount of this adjustment.

Payments Canada
Established in the 1980 revision of the Bank Act, this association operates a highly automated national clearing system for interbank payments. Members include chartered banks, trust and loan companies and some credit unions and caisses.

peer group
A group of managed products (particularly mutual funds) with a similar investment mandate.

pension adjustment (PA)
The amount of contributions made or the value of benefits accrued to a member of an employer-sponsored retirement plan for a calendar year. The PA enables the individual to determine the amount that may be contributed to an **RRSP** that would be in addition to contributions into a **Registered Pension Plan**.

pension fund
A pension fund is a pool of assets managed with the goal of supplying its beneficiaries with income during their retirement years.

percentage change
The degree of change over time based on a comparison between the beginning value and ending value.

performance bonds
What is often required upon entry into a futures contract giving the parties to a contract a higher level of assurance that the terms of the contract will eventually be honoured. The performance bond is often referred to as margin.

Phillips Curve
A graph showing the relationship between inflation and unemployment. The theory states that unemployment can be reduced in the short run by increasing the price level (inflation) at a faster rate. Conversely, inflation can be lowered at the cost of possibly increased unemployment and slower economic growth.

physical-based ETF
An ETF that invests in the commodity directly. They are limited to only a few storable, non-perishable commodities, such as gold and silver.

point
In the case of a stock market index, a point refers to a single unit and is typically equivalent to $1. In the case of **bonds** and **debentures**, it means 1% of the issue's **par value**, which is

almost universally 100. On a $1,000 bond, one point represents 1% of the face value of the bond or $10.

point change
In the case of a stock market index, a point change refers to the number of units of change in the index. For example, if the DJIA changes from 10,000 to 10,100, this would be referred to as a 100 point change.

political risk
The risk associated with a government introducing unfavourable policies making investment in the country less attractive. Political risk also refers to the general instability associated with investing in a particular country.

pooled account
A type of managed product structure whereby by investors' funds are gathered into a legal structure, usually a trust or corporation. An investor's claim to the pool's returns is proportional to the number of shares or units the investor owns. The pools are often open-ended, which means units are issued when there are net cash inflows to the fund, or units are redeemed when there are net cash outflows.

pooled registered pension plan
A type of retirement savings plan offered by the federal government. The plan is designed to address the gap in employer pension plan coverage by providing Canadians with an accessible, large-scale, low-cost pension plan.

portfolio
Holdings of securities by an individual or institution. A portfolio may contain debt securities, preferred and common stocks of various types of enterprises and other types of securities.

potential output
The maximum amount of output the economy is capable of producing during a given period when all of its available resources are employed to their most efficient use.

pre-authorized contribution plan
A pre-authorized plan to make regular purchases in small amounts.

preferred dividend coverage ratio
A type of profitability ratio that measures the amount of money a firm has available to pay dividends to their preferred shareholders.

preferred shares
A class of share capital that entitles the owners to a fixed **dividend** ahead of the company's common shares and to a stated dollar value per share in the event of liquidation. Usually do

not have **voting rights** unless a stated number of dividends have been omitted. Also referred to as preference shares.

preliminary prospectus
The initial document released by an underwriter of a new securities issue to prospective investors.

premium
The amount by which a **preferred** stock or **debt** security may sell above its **par value**. In the case of a new issue of **bonds** or stocks, the amount the market price rises over the original selling price. Also refers to that part of the **redemption** price of a bond or preferred share in excess of face value, par value or market price. In the case of **options**, the price paid by the buyer of an option contract to the seller.

prepaid expenses
Payments made by the company for services to be received in the near future. For example, rents, insurance premiums and taxes are sometimes paid in advance. A **statement of financial position** item.

prepayment risk
The risk that the issuer of a bond might prepay or redeem early some or all principal outstanding on the loan or mortgage.

prescribed number of units
Increments of shares, typically consisting of 10,000, 25,000 or 50,000 shares, set by the respective ETF company, are called the prescribed number of units.

prescribed rate
A quarterly interest rate set out, or prescribed by Canada Revenue Agency under **attribution** rules. The rate is based on the Bank of Canada rate.

present value
The current worth of a sum of money that will be received sometime in the future.

price-to-earnings ratio or P/E ratio
A **value ratio** that gives investors an idea of how much they are paying for a company's earnings. Calculated as the current price of the stock divided current **earnings per share**.

price spread
The difference between the bid and ask price. Also known as the dealer's spread.

primary dealer
A government securities distributor that maintains a certain threshold of activity.

primary market
The market for new issues of securities. The proceeds of the sale of securities in a primary market go directly to the company issuing the securities. See also **Secondary Market.**

primary market distribution
The issuance of securities in the primary market**.**

primary offering
The original sale of any issue of a company's securities.

prime brokerage
A bundling of equity trading-related services used primarily by hedge funds.

prime rate
The interest rate chartered banks charge to their most credit-worthy borrowers.

principal
The person for whom a broker executes an order, or a **dealer** buying or selling for its own account. The term may also refer to a person's capital or to the face amount of a **bond**.

principal-protected note
A debt-like instrument with a maturity date whereby the issuer agrees to repay investors the amount originally invested (the principal) plus interest. The interest rate is tied to the performance of an underlying asset, such as a portfolio of mutual funds or common stocks, a market index, a hedge fund or a portfolio of hedge funds. PPNs guarantee only the return of the principal.

private corporation
Companies that have charters that restrict the right of shareholders to transfer shares, limit the number of shareholders to no more than 50, and prohibit shareholders from inviting the public to subscribe for their securities.

private equity
The financing of firms unwilling or unable to find capital using public means—for example, via the stock or bond markets.

private family office
An extension of the advisor's client servicing approach. In this approach, instead of having only one advisor, a team of professionals handles all of an affluent client's financial affairs within one central location.

private placement

The underwriting of a security and its sale to a few buyers, usually institutional, in large amounts.

pro rata
In proportion to. For example, a **dividend** is a pro rata payment because the amount of dividend each shareholder receives is in proportion to the number of shares he or she owns.

probate
A provincial fee charged for authenticating a **will**. The fee charged is usually based on the value of the assets in an estate rather than the effort to process the will.

product transparency
The level of ongoing information regarding investment products, evaluated on level of details provided, frequency of communication and time between fund reporting date and date of communication to investors.

productivity
The amount of output per worker used as a measure of efficiency with which people and capital are combined in the output of the economy. Productivity gains lead to improvements in the standard of living, because as labour, capital, etc. produce more, they generate greater income.

professional (PRO) order
A type of order for the account of partners, directors, officers, major shareholders, IAs and employees of member firms that must be marked “PRO”, “N-C” or “Emp”, in order to ensure that client orders are given priority for the same securities.

profit
That part of a company’s revenue remaining after all expenses and taxes have been paid and out of which dividends may be paid.

profitability ratios
Financial ratios that illustrate how well management has made use of the company’s resources.

program trading
A sophisticated computerized trading strategy whereby a portfolio manager attempts to earn a profit from the price spreads between a portfolio of equities similar or identical to those underlying a designated stock index, e.g., the Standard & Poor 500 Index, and the price at which **futures** contracts (or their options) on the index trade in financial futures markets. Also refers to switching or trading blocks of securities in order to change the asset mix of a portfolio.

proprietary trader
Proprietary traders have the responsibility to manage the dealer's trading capital to encourage market flows and facilitate the client orders that go into the market. Also known as a liability trader.

prospectus
A legal document that describes securities being offered for sale to the public. Must be prepared in conformity with requirements of applicable securities commissions. See also **Red Herring** and **Final Prospectus**.

protective provision
Covenant clauses that secure the bond.

proxy
Written authorization given by a shareholder to someone else, who need not be a shareholder, to represent him or her and vote his or her shares at a shareholders' meeting.

prudent portfolio approach
An investment standard. In some provinces, the law requires that a fiduciary, such as a trustee, may invest funds only in a list of securities designated by the province or the federal government. In other provinces, the trustee may invest in a security if it is one that an ordinary prudent person would buy if he were investing for the benefit of other people for whom he felt morally bound to provide. Most provinces apply the two standards.

public corporation
A company whose shares are listed on a stock exchange or traded over the counter.

public float
That part of the issued shares that are outstanding and available for trading by the public, and not held by company officers, directors, or investors who hold a controlling interest in the company. A company's public float is different from its **outstanding shares** as it also excludes those shares owned in large blocks by institutions.

purchase fund
A fund set up by a company to retire through purchases in the market a specified amount of its outstanding **preferred** shares or debt if purchases can be made at or below a stipulated price. See also **Sinking Fund**.

put option
A right to sell the stock at a stated price within a given time period. Those who think a stock may go down generally purchase puts. See also **Call Option**.

Q

qualifying transaction
A transaction to purchase a business that allows a capital pool company to qualify for listing on the TSX Venture Exchange.

quantitative analysis
A form of technical analysis that relies on statistics to construct indicators and has thus been greatly enhanced by computer technology.

quick ratio
A more stringent measure of liquidity compared with the **current ratio**. Calculated as **current assets** less inventory divided by **current liabilities**. By excluding inventory, the ratio focuses on the company's more liquid assets.

quotation or quote
The highest bid to buy and the lowest offer to sell a security at a given time. Example: A quote of 45.40–45.50 means that 45.40 is the highest price a buyer will pay and 45.50 the lowest price a seller will accept.

R

rally
A brisk rise in the general price level of the market or in an individual stock.

random walk theory
The theory that stock price movements are random and bear no relationship to past movements.

rate of return
See **Yield**.

ratio withdrawal plan
A systematic withdrawal plan where the investor receives an annual income from the fund by redeeming a specified percentage of fund holdings each year.

rational expectations
School of economic theory which argues that investors are rational thinkers and can make intelligent economic decisions after evaluating all available information.

real estate investment trust (REIT)
An investment trust that specializes in real estate related investments including mortgages, construction loans, land and real estate securities in varying combinations. A REIT invests in and manages a diversified portfolio of real estate.

real gross domestic product
Gross Domestic Product adjusted for changes in the price level. Also referred to as constant dollar GDP.

real interest rate
The **nominal rate** of interest minus the percentage change in the **Consumer Price Index** (i.e., the rate of inflation).

real rate of return
A rate of return adjusted for the effects of inflation.

real return bond
The coupon payments and principal repayment are adjusted for inflation to provide a fixed real coupon rate.

record date
The date on which a shareholder must officially own shares in a company to be entitled to a declared **dividend**. Also referred to as the date of record.

red herring prospectus
A preliminary **prospectus** so called because certain information is printed in red ink around the border of the front page. It does not contain all the information found in the **final prospectus**. Its purpose: to ascertain the extent of public interest in an issue while it is being reviewed by a securities commission.

redeemable bond
A clause that allows issuers the right, but not the obligation, to pay off the bond before maturity. Also known as a callable bond.

redemption
The purchase of securities by the issuer at a time and price stipulated in the terms of the securities. See also **Call Feature**.

redemption price
The price at which **debt** securities or **preferred** shares may be redeemed, at the option of the issuing company.

redeposit

An open-market cash management policy pursued by the Bank of Canada. A redeposit refers to the transfer of funds from the Bank to the direct clearers (an injection of balances) that will increase available funds. See also **Drawdown**.

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registered bond

See **Registered Security**.

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registered education savings plans (RESPs)

A type of government sponsored savings plan used to finance a child's post-secondary education.

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registered pension plan (RPP)

A trust registered with Canada Revenue Agency and established by an employer to provide pension benefits for employees when they retire. Both employer and employee may contribute to the plan and contributions are tax-deductible. See also **Defined Contribution Plan** and **Defined Benefit Plan**.

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registered retirement income fund (RRIF)

A tax deferral vehicle available to **RRSP** holders. The planholder invests the funds in the RRIF and must withdraw a certain amount each year. Income tax would be due on the funds when withdrawn.

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registered retirement savings plan (RRSP)

An investment vehicle available to individuals to defer tax on a specified amount of money to be used for retirement. The holder invests money in one or more of a variety of investment vehicles which are held in trust under the plan. Income tax on contributions and earnings within the plan is deferred until the money is withdrawn at retirement. RRSPs can be transferred into Registered **Retirement Income Funds** upon retirement.

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registered security

A security recorded on the books of a company in the name of the owner. It can be transferred only when the certificate is endorsed by the registered owner. Registered debt securities may be registered as to principal only or fully registered. In the latter case, interest is paid by cheque rather than by coupons attached to the certificate. See also **Bearer Security**.

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registrar

Usually a trust company appointed by a company to monitor the issuing of **common** or **preferred** shares. When a transaction occurs, the registrar receives both the old cancelled certificate and the new certificate from the transfer agent and records and signs the new certificate. The registrar is, in effect, an auditor checking on the accuracy of the work of the transfer agent, although in most cases the registrar and transfer agent are the same trust company.

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regular delivery
The date a securities trade settles – i.e., the date the seller must deliver the securities. See also **Settlement Date**.

regular dividends
A term that indicates the amount a company usually pays on an annual basis.

reinvestment risk
The risk that interest rates will fall causing the cash flows on an investment, assuming that the **cash flows** are reinvested, to earn less than the original investment. For example, **yield to maturity** assumes that all interest payments received can be reinvested at the yield to maturity rate. This is not necessarily true. If interest rates in the market fall the interest would be reinvested at a lower rate. Reinvestment risk recognizes this risk.

relative value strategies
A type of hedge fund that attempts to profit by exploiting irregularities or discrepancies in the pricing of related stocks, bonds or derivatives.

reporting issuer
Usually, a corporation that has issued or has outstanding securities that are held by the public and is subject to continuous disclosure requirements of securities administrators.

research associate
Reports to a senior analyst, mainly builds financial or pricing models, conducts industry or company research and helps write reports and commentary.

reset
A contract provision which allows the **segregated fund** contract holder to lock in the current market value of the fund and set a new maturity date 10 years after the reset date. Depending on the contract, the reset dates may be chosen by the contract holder or be triggered automatically.

resistance level
The opposite of a **support level**. A price level at which the security begins to fall as the number of sellers exceeds the number of buyers of the security.

responsible designated trader (RDT)
Individual assigned by the dealer to carry out market making duties on a stock.

restricted shares
Shares that participate in a company's earnings and assets (in liquidation), as **common** shares do, but generally have restrictions on **voting rights** or else no voting rights.

retail firm

Retail firms are investment dealers that serve only retail clients. Retail firms include full-service firms and discount brokers. Full-service firms offer a wide variety of products and services for the retail investor. Discount brokers execute trades for retail clients at a reduced rate, but do not provide investment advice.

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retail investor

Individual investors who buy and sell securities for their own personal accounts, and not for another company or organization. They generally buy in smaller quantities than larger **institutional investors**.

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retained earnings

The cumulative total of annual earnings retained by a company after payment of all expenses and **dividends**. The earnings retained each year are reinvested in the business.

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retractable

A feature which can be included in a new **debt** or **preferred** issue, granting the holder the option under specified conditions to redeem the **security** on a stated date – prior to maturity in the case of a bond.

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retractable bond

A bond that grants the holder the option under specified conditions to force the issuer to redeem the debt security.

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retractable preferred

A preferred share that grants the holder the option under specified conditions to force the issuer to redeem the shares.

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return on common equity

A **profitability ratio** expressed as a percentage representing the amount earned on a company's **common shares**. Return on equity tells the investor how effectively their money is being put to use.

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revenue

A company's income earned during a specific period of time.

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reversal patterns

Formations that usually precede a sizeable advance or decline in stock prices.

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reverse split

A process of retiring old shares with fewer shares. For example, an investor owns 1,000 shares of ABC Inc. pre split. A 10 for 1 reverse split or **consolidation** reduces the number held to 100. Results in a higher share price and fewer shares outstanding.

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revocable beneficiary
A beneficiary whose entitlements under the **segregated fund** contract can be terminated or changed without his or her consent.

revocable designation
A contract where the beneficiary's entitlements under the **segregated fund** contract can be terminated or changed without his or her consent.

rights
A short-term privilege granted to a company's **common** shareholders to purchase additional common shares, usually at a discount, from the company itself, at a stated price and within a specified time period. Rights of listed companies trade on stock exchanges from the **ex-rights** date until their expiry.

right of action for damages
Most securities legislation provides that those who sign a prospectus may be liable for damages if the prospectus contains a misrepresentation. This right extends to experts e.g., lawyers, auditors, geologists, etc., who report or give opinions within the text of the document.

right of redemption
A mutual fund's shareholders have a continuing right to withdraw their investment in the fund simply by submitting their shares to the fund itself and receiving in return the dollar amount of their **net asset value**. This characteristic is the hallmark of mutual funds. Payment for the securities that have been redeemed must be made by the fund within three business days from the determination of the net asset value.

right of rescission
The right of a purchaser of a new issue to rescind the purchase contract within the applicable time limits if the **prospectus** contained an untrue statement or omitted a material fact.

right of withdrawal
The right of a purchaser of a new issue to withdraw from the purchase agreement within two business days after receiving the prospectus.

risk-adjusted rate of return
A measure of how much risk is involved to produce a return. Risk-adjusted measures can be applied to individual securities as well as to portfolios.

risk analysis ratios
Financial ratios that show how well the company can deal with its debt obligations.

risk arbitrage strategy

Investing simultaneously in long and short positions of the common stock of companies involved in a proposed merger or acquisition, usually involving taking a long position in the company being acquired and a short position in the acquiring company. Also known as merger strategy.

risk-averse
Descriptive term used for an investor unable or unwilling to accept the probability or chance of losing capital. See also **Risk-Tolerant**.

risk-free rate of return
The rate of return an investor would receive if he or she invested in a risk-free investment, such as a **treasury bill**.

risk premium
A rate that has to be paid in addition to the **risk-free rate** (T-bill rate) to compensate investors for choosing securities that have more risk than T-Bills.

risk-tolerant
Descriptive term used for an investor willing and able to accept the probability of losing capital. See also **Risk-Averse**.

robo-advisor
An online investment service that provides clients with automated investment advice.

roll-over risk
The risk that the issuer will be unable to refinance or renew the underlying assets when an asset-backed security matures.

roll yield loss
The loss that results when a near-term futures contract approaches expiration and is rolled over into more distant contract.

rules-based ETF
Take a goal-oriented approach, rather than following a standard index. Rules-Based ETFs might follow on areas of the market that offer higher returns or lower risks than traditional indexes.

S

sacrifice ratio

Describes the extent to which **Gross Domestic Product** must be reduced with increased unemployment to achieve a 1% decrease in the inflation rate.

Sale and Repurchase Agreements (SRAs)
An open-market operation by the Bank of Canada to offset undesired downward pressure on overnight financing costs.

sales finance company
Purchases, at a discount, instalment sales contracts from retailers and dealers when such items as new cars and appliances are bought on instalment plans.

sampling
The process by which the portfolio manager selects a smaller sample of securities and their weighting to best match the performance of the overall index.

satellite holdings
Holdings that are focused on riskier sectors of the markets. Satellite holdings are used to boost returns above the core asset returns.

savings bank
A financial institution whose main role is to accept savings deposits and pay interest on those deposits. Usually set up by a government and is similar in function to a credit union.

schedule I bank
Canadian-owned banks. The largest 6 banks in Canada out-distance the asset size of other Canadian-owned banks. Schedule I banks are regulated by the Bank Act.

schedule II bank
Banks that are incorporated and operate in Canada as federally regulated foreign bank subsidiaries. Schedule II banks are regulated by the Bank Act.

schedule III bank
Banks that are federally regulated foreign bank branches of foreign institutions that have been authorized under the Bank Act to do banking business in Canada.

seasonal unemployment
Unemployment that results from a company or industry that only operates during specific seasons of the year.

secondary market
The market where securities are traded through an exchange or **over-the-counter** subsequent to a **primary offering**. The proceeds from trades in a secondary market go to

the selling dealers and investors, rather than to the companies that originally issued the shares in the **primary market**.

secondary offering
Refers to the redistribution or resale of previously issued securities to the public by a dealer or investment dealer syndicate. Usually a large block of shares is involved (e.g., from the settlement of an estate) and these are offered to the public at a fixed price, set in relationship to the stock's market price.

second-order risk
Second-order risks Include liquidity, leverage, deal break, default, counterparty, trading, concentration, pricing model, and trading model risks. Unlike first-order risk, second-order risk is not related to the market but to other aspects of trading such as dealing, implementing arbitrage structures, or pricing illiquid or infrequently valued securities.

sector rotation
A top-down approach to investment, focusing on analyzing the prospects for the overall economy and investing in those sectors that are expected to outperform.

securities
Paper certificates or electronic records that evidence ownership of **equity** (**stocks**) or debt obligations (**bonds**).

securities acts
Provincial Acts administered by the securities commission in each province, which set down the rules under which securities may be issued and traded.

securities administrator
A general term referring to the provincial regulatory authority (e.g., Securities Commission or Provincial Registrar) responsible for administering a provincial Securities Act.

Securities and Exchange Commission (SEC)
A federal body established by the United States Congress, to protect investors in the U.S. In Canada there is no national regulatory authority; instead, securities legislation is provincially administered.

securities eligible for reduced margin
Securities which demonstrate sufficiently high liquidity and low price volatility based on meeting specific price risk and liquidity risk measures.

securitization
Refers in a narrow sense to the process of converting loans of various sorts into marketable securities by packaging the loans into pools. In a broader sense, refers to the development

of markets for a variety of **debt** instruments that permit the ultimate borrower to bypass the banks and other deposit-taking institutions and to borrow directly from lenders.

segregated funds

Insurance companies sell these funds as an alternative to conventional **mutual funds**. Like mutual funds, segregated funds offer a range of investment objectives and categories of securities e.g. equity funds, bond funds, balanced funds etc. These funds have the unique feature of guaranteeing that, regardless of how poorly the fund performs, at least a minimum percentage (usually 75% or more) of the investor's payments into the fund will be returned when the fund matures.

self-directed broker

Also known as discount brokers. Self-directed brokers offer discounted transaction costs and do not provide investment advice to investors.

self-directed registered retirement savings plan

A type of RRSP whereby the holder invests funds or contributes certain acceptable assets such as securities directly into a registered plan which is usually administered for a fee by a Canadian financial services company.

self-regulatory organization (SRO)

An organization recognized by the Securities Administrators as having powers to establish and enforce industry regulations to protect investors and to maintain fair, equitable, and ethical practices in the industry and ensure conformity with securities legislation. Canadian SROs include the **Investment Industry Regulatory Organization of Canada** and, the **Mutual Fund Dealers Association**.

selling group

Investment dealers or others who assist a **banking group** in marketing a new issue of securities without assuming financial liability if the issue is not entirely sold. The use of a selling group widens the distribution of a new issue.

sell side

Refers to dealers. The term stems from the role broker/dealers play in the underwriting and distribution of new issue securities.

sentiment indicators

Measure investor expectations or the mood of the market. These indicators measure how bullish or bearish investors are.

separately managed account

A managed product structure whereby individual accounts are created for each investor. In either case, an investment manager is guided by an investment mandate.

serial bond or debenture
See **Instalment Debenture**.

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settlement
The moment of irrevocable exchange of cash and securities.

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settlement date
The date on which a securities buyer must pay for a purchase or a seller must deliver the securities sold. For most securities, settlement must be made on or before the second business day following the transaction date.

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share capital
The money paid in by shareholders and received by the company for the shares issued by the company.

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shareholder
Someone who owns shares in a corporation.

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share of profit of associates
A company's share of an unconsolidated subsidiary's revenue. The equity accounting method is used when a company owns 20% to 50% of a subsidiary.

Sharpe ratio
A ratio measure of the portfolio's risk-adjusted rate of return using standard deviation as the measure of risk.

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short bias
A fund where the net position must always be short. The fund may have long positions, but on a net basis, the fund must constantly be short.

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short form prospectus distribution system
This system allows reporting issuers to issue a short-form **prospectus** that contains only information not previously disclosed to regulators. The short form prospectus contains by reference the material filed by the corporation in the **Annual Information Form**.

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short position
Created when an investor sells a security that he or she does not own.

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short selling
The sale of a security which the seller does not own. This is a speculative practice done in the belief that the price of a stock is going to fall and the seller will then be able to cover the sale by buying it back later at a lower price, thereby making a profit on the transactions. It is

illegal for a seller not to declare a short sale at the time of placing the order. See also **Margin**.

short-term bond
A bond with greater than one year but less than five years to maturity.

short-term debt
Company borrowings repayable within one year that appear in the current liabilities section of the **statement of financial position**. The most common short-term debt items are: bank advances or loans, notes payable and the portion of funded debt due within one year.

single-manager account
A type of fee-based account that is directed by a single portfolio manager who focuses considerable time and attention on the selection of securities, the sectors to invest in and the optimal asset allocation.

simplified prospectus
A condensed prospectus distributed by mutual fund companies upon request to purchasers and potential purchasers of fund units or shares.

sinking fund
A fund set up to retire most or all of a debt or preferred share issue over a period of time. See also **Purchase Fund**.

skew
Measures the extent to which a distribution is tilted towards negative or positive returns. Positive skew indicates a tendency to obtain returns above what is observed with the normal distribution; negative skew indicates a tendency to obtain returns below the normal distribution.

small cap
Reference to smaller growth companies. Small cap refers to the size of the **capitalization** or investments made in the company. A small cap company has been defined as a company with an outstanding stock value of under $500 million. Small cap companies are considered more volatile than large cap companies.

soft-dollar arrangement
An arrangement where an investment firm purchases services via commission dollars rather than an invoice for the goods or services provided.

soft landing
Describes a business cycle phase when economic growth slows sharply but does not turn negative, while inflation falls or remains low.

soft retractable preferred shares
A type of retractable preferred share where the redemption value may be paid in cash or in common shares, generally at the election of the issuer.

sole proprietorship
A form of business organization that involves one person running a business whereby the individual is taxed on earnings at their personal income tax rate.

Special Purchase and Resale Agreements (SPRAs)
An open-market operation used by the Bank of Canada to relieve undesired upward pressure on overnight financing rates.

special purpose vehicle
An entity set up to purchase and manage assets as part of an asset-backed security issue. The issuer typically controls the SPV and issues ABS securities to investors.

specific risk
The risk that the price of a specific security or a specific group of securities will change in price to a different degree or in a different direction from the market as a whole. Also known as non-systematic risk.

speculative industry
Industries in which risk and uncertainty are unusually high because analysts lack definitive information. Shares in these companies are called speculative shares.

speculator
One who is prepared to accept calculated risks in the marketplace. Objectives are usually short to medium-term capital gain, as opposed to regular income and safety of principal, the prime objectives of the conservative investor.

S&P/TSX 60 Index
Includes the 60 largest companies that trade on the TSX as measured by market capitalization and is broken down into 11 sectors that cover all S&P/TSX Index subgroups.

S&P/TSX Composite Index
A benchmark used to measure the performance of the broad Canadian equity market.

S&P/TSX Venture Composite Index
A benchmark index for the public venture capital marketplace. Managed by Standard & Poor’s, it is a market capitalization-based index meant to provide an indication of performance for companies listed on the TSX Venture Exchange.

split shares

A security that has been created to divide (or split) the investment attributes of an underlying portfolio of common shares into separate components that satisfy different investment objectives. The preferred shares receive the majority of the dividends from the common shares held by the split share corporation. The capital shares receive the majority of any capital gains on the common shares.

spot price
The current cash market price of a commodity or financial instrument that is available for immediate delivery.

spousal registered retirement savings plan
A special type of RRSP to which one spouse contributes to a plan registered in the beneficiary spouse's name. The contributed funds belong to the beneficiary but the contributor receives the tax deduction. If the beneficiary removes funds from the spousal plan in the year of the contribution or in the subsequent two calendar years, the contributor must pay taxes on the withdrawn amount.

SRO
Short for self-regulatory organization such as the **Investment Industry Regulatory Organization of Canada**.

standard deviation
A statistical measure of risk. The larger the standard deviation, the greater the volatility of returns and therefore the greater the risk.

standard trading unit
A regular trading unit which has uniformly been decided upon by the stock exchanges, in most cases it is 100 shares, but this can vary depending on the price of the stock.

statement of cash flow
A financial statement which provides information as to how a company generated and spent its cash during the year. Assists users of financial statements in evaluating the company's ability to generate cash internally, repay debts, reinvest and pay dividends to shareholders.

statement of changes in equity
A financial statement that shows the total comprehensive income kept in the business year after year.

statement of comprehensive income
A financial statement which shows a company's revenues and expenditures resulting in either a profit or a loss during a financial period.

statement of financial position
A financial statement showing a company's **assets**, **liabilities** and **equity** on a given date.

statement of material facts
A document presenting the relevant facts about a company and compiled in connection with an underwriting or secondary distribution of its shares. It is used only when the shares underwritten or distributed are listed on a recognized stock exchange and takes the place of a prospectus in such cases.

stock
Ownership interest in a corporation's that represents a claim on its earnings and assets.

stock average
The arithmetic average of the current prices of a group of stocks designed to represent the overall market or some part of it.

stock dividend
A pro rata payment to common shareholders of additional common stock. Such payment increases the number of shares each holder owns but does not alter a shareholder's proportional ownership of the company.

stock exchange
A marketplace where buyers and sellers of securities meet to trade with each other and where prices are established according to laws of supply and demand.

stock index
A time series of numbers used to calculate a percentage change of this series over any period of time. Most stock indexes are value-weighted and are derived by using the total market value (i.e., market capitalization) of all stocks used in the index relative to a base period.

stock savings plan
Some provinces allow individual residents of the particular province a deduction or tax credit for provincial income tax purposes on investments made in certain prescribed vehicles. The credit or deduction is a percentage figure based on the value of investment.

stock split
An increase in a corporation's number of shares outstanding without any change in the shareholders' equity or market value. When a stock reaches a high price making it illiquid or difficult to trade, management may split the stock to get the price into a more marketable trading range. For example, an investor owns one **standard trading unit** of a stock that now trades at $70 each (portfolio value is $7,000). Management splits the stock 2:1. The investor would now own 200 new shares at a market value, all things being equal, of $35 each, for a portfolio value of $7,000.

stop buy orders

An order to buy a security only after it has reached a certain price. This may be used to protect a short position or to ensure that a stock is purchased while its price is rising.

stop loss orders
The opposite of a **stop buy order**. An order to sell a security after its price falls to a certain amount, thus limiting the loss or protecting a paper profit.

straight-line method
An accounting method of depreciation whereby an equal amount is charged each period as an expense when writing down the value of an asset over time.

straight preferred
A preferred share with no special features.

straight-through processing
A continuous, real-time investment management database that tracks all security transactions and investments, and links the various operating departments of a firm.

strategic asset allocation
An asset allocation strategy that rebalances investment portfolios regularly to maintain a consistent long-term mix.

street certificate
Securities certificates that are registered in the name of the securities firm, rather than the beneficial owner.

street form
Securities that are registered in the name of the securities firm, rather than the beneficial owner.

street name
Securities registered in the name of an investment dealer or its nominee, instead of the name of the real or beneficial owner, are said to be “in street name.” Certificates so registered are known as street certificates.

strike price
The price, as specified in an option contract, at which the underlying security will be purchased in the case of a **call** or sold in the case of a **put**. See also **Exercise Price**.

strip bonds or zero coupon bonds
Usually high quality federal or provincial government bonds originally issued in **bearer** form, where some or all of the interest **coupons** have been detached. The bond principal and any

remaining coupons (the residue) then trade separately from the strip of detached coupons, both at substantial discounts from par.

structural unemployment
Unemployment that results when workers are unable to find work or fill available jobs because they lack the necessary skills, do not live where the jobs are available, or decide not to work at the wage rate offered by the market.

structured product
A passive investment vehicle financially engineered to provide a specific risk and return characteristic. The value of a structured product tracks the returns of reference security known as an underlying asset. Underlying assets can consist of a single security, a basket of securities, foreign currencies, commodities or an index.

subordinated debenture
A type of junior **debenture**. Subordinate indicates that another debenture ranks ahead in terms of a claim on assets and profits.

subscription or exercise price
The price at which a right or **warrant** holder would pay for a new share from the company. With options the equivalent would be the **strike** price.

subsidiary
Company which is controlled by another company usually through its ownership of the majority of shares.

suitability
A registrant's major concern in making investment recommendations. All information about a client and a security must be analyzed to determine if an investment is suitable for the client in accounts where a suitability exemption does not apply.

superficial losses
Occur when an investment is sold and then repurchased at any time in a period that is 30 days before or after the sale.

supply
The quantity supplied of a good or service based on a particular price during a given period of time. The higher the price of the good or service, the greater the quantity of supply.

supply and demand
The determinants of the price paid for a good or service.

supply-side economics

An economic theory whereby changes in tax rates exert important effects over supply and spending decisions in the economy. According to this theory, reducing both government spending and taxes provides the stimulus for economic expansion.

support level
A price level at which a security stops falling because the number of investors willing to buy the security is greater than the number of investors wishing to sell the security.

suspension in trading
An interruption in trading imposed on a company if their financial condition does not meet an exchange's requirements for continued trading or if the company fails to comply with the terms of its listing agreement.

swap
An over-the-counter forward agreement involving a series of cash flows exchanged between two parties on specified future dates.

sweetener
A feature included in the terms of a new issue of **debt** or **preferred** shares to make the issue more attractive to initial investors. Examples include **warrants** and/or **common** shares sold with the issue as a unit or a **convertible** or **extendible** or **retractable** feature.

switching fee
A fee charged by a mutual fund when an investor exchanges units of one fund for another in the same family or fund company.

syndicate
A group of investment dealers who together underwrite and distribute a new issue of securities or a large block of an outstanding issue.

synthetic ETF
Constructed with derivatives, such as swaps, to achieve the return effect of the index. As a result, the exposure of synthetic ETFs is notional, rather than real.

System for Electronic Document Analysis and Retrieval (SEDAR)
SEDAR facilitates the electronic filing of securities information as required by the securities regulatory agencies in Canada and allows for the public dissemination of information collected in the filing process

systematic risk
A non-controllable, non-diversifiable risk that is common to all investments within a given asset class. With equities it is called **market** risk, with fixed income securities it would be **interest rate** risk.

systematic withdrawal plan
A plan that enables set amounts to be withdrawn from a **mutual fund** or a segregated fund on a regular basis.

T

T3 form
Referred to as a Statement of Trust Income Allocations and Designations. When a mutual fund is held outside a registered plan, unitholders of an unincorporated fund are sent a T3 form by the respective fund.

T4 form
Referred to as a Statement of Remuneration Paid. A T4 form is issued annually by employers to employees reporting total compensation for the calendar year. Employers have until the end of February to submit T4 forms to employees for the previous calendar year.

T5 form
Referred to as a Statement of Investment Income. When an incorporated fund is held outside a registered plan, shareholders are sent a T5 form by the respective fund.

tactical asset allocation
An **asset allocation** strategy that involves adjusting a portfolio to take advantage of perceived inefficiencies in the prices of securities in different asset classes or within sectors.

takeover bid
An offer made to security holders of a company to purchase voting securities of the company which, with the offeror's already owned securities, will in total exceed 20% of the outstanding voting securities of the company. For federally incorporated companies, the equivalent requirement is more than 10% of the outstanding voting shares of the target company.

target-date funds
Mutual funds that are structured on the assumption that risk tolerance declines as investors grow older. The fund pursues a growth strategy in its early years by holding more risky assets. It then gradually moves towards less risky assets as the target date approaches. The fund manager adjusts the fund over time, without any action required from the fund holder. Also called *target-based funds or life-cycle funds*.

tax-free savings account (TFSA)
A savings vehicle whereby income earned within a TFSA will not be taxed in any way throughout an individual's lifetime. In addition, there are no restrictions on the timing or

amount of withdrawals from a TFSA, and the money withdrawn can be used for any purpose.

tax loss selling
Selling a security for the sole purpose of generating a loss for tax purposes. There may be times when this strategy is advantageous but investment principles should not be ignored.

technical analysis
A method of market and security analysis that studies investor attitudes and psychology as revealed in charts of stock price movements and trading volumes to predict future price action.

term deposit
Money invested for a fixed term for a fixed rate of return at a deposit-taking institution.

term to maturity
The length of time that a **segregated fund** policy must be held in order to be eligible for the **maturity guarantee**. Normally, except in the event of the death of the **annuitant**, the term to maturity of a segregated-fund policy is 10 years.

thin market
A market in which there are comparatively few bids to buy or offers to sell or both. The phrase may apply to a single security or to the entire stock market. In a thin market, price fluctuations between transactions are usually larger than when the market is liquid. A thin market in a particular stock may reflect lack of interest in that issue, or a limited supply of the stock.

time horizon
The period spanning the present until the next major change in the client's circumstances. Clients go through various events in their lives, each of which can represent a time horizon and a need to completely rebalance their portfolio.

tilting of the yield curve
The yield curve that results from a decline in long-term bond yields while short-term rates are rising.

time to expiry
The number of days or months or years until expiry of an option or other derivative instrument.

time to recovery
Number of months required to move from a trough to a new peak. Some alternative strategy fund managers and analysts define time to recovery as the time from peak to trough to peak.

time value
The amount, if any, by which the current market price of a **right**, **warrant** or **option** exceeds its **intrinsic value**.

time-weighted rate of return (TWRR)
A measure of return calculated by averaging the return for each subperiod in which a cash flow occurs into a return for a reporting period.

timely disclosure
An obligation imposed by securities administrators on companies, their officers and directors to release promptly to the news media any favourable or unfavourable corporate information which is of a material nature. Broad dissemination of this news allows non-insiders to trade the company's securities with the same knowledge about the company as insiders themselves. See also **Continuous Disclosure**.

top-down analysis
A type of fundamental analysis. First, general trends in the economy are analyzed. This information is then combined with industries and companies within those industries that should benefit from the general trends identified.

Toronto Stock Exchange (TSX)
The largest stock exchange in Canada with over 1,700 companies listed on the exchange.

tracking error
The simple difference between the return on an underlying index or reference asset and the return on the ETF that tracks the index or reference asset.

trade-matching elements
Details that all parties to a trade must confirm before an institutional trade can be cleared and settled.

trade payables
Money owed by a company for goods or services purchased, payable within one year. A current liability on the statement of financial position.

trade receivables
Money owed to a company for goods or services it has sold, for which payment is expected within one year. A current asset on the statement of financial position.

trade ticket
An electronic trade confirmation sent through secure, proprietary systems that contain all the necessary specifics to a transaction.

trading unit
Describes the size or the amount of the underlying asset represented by one option contract. In North America, all exchange-traded options have a trading unit of 100 shares.

trailer fee
Fee that a **mutual fund** manager may pay to the individual or organization that sold the fund for providing services such as investment advice, tax guidance and financial statements to investors. The fee is paid annually and continues for as long as the investor holds shares in the fund.

tranches
An issue of securities divided into a number of classes. Each tranche has its own level of credit risk and either a fixed or variable rate of return. The tranches are sold separately to investors seeing the appropriate risk-to-return opportunity.

transaction date
The date on which the purchase or sale of a security takes place.

transfer agent
An agent, usually a trust company, appointed by a corporation to maintain shareholder records, including purchases, sales, and account balances. The transfer agent may also be responsible for distributing dividend cheques.

transparency
Information that is easy for everyone to perceive or detect.

Treasury bills
Short-term government debt issued in denominations ranging from $1,000 to $1,000,000. Treasury bills do not pay interest, but are sold at a discount and mature at par (100% of **face value**). The difference between the purchase price and par at maturity represents the lender's (purchaser's) income in lieu of interest. In Canada, such gain is taxed as interest income in the purchaser's hands. Also known as T-bills.

treasury shares
Authorized but unissued stock of a company or previously issued shares that have been re-acquired by the corporation. The amount still represents part of those issued but is not included in the number of shares outstanding. These shares may be resold or used as part of the option package for management. Treasury shares do not have voting rights nor are they entitled to dividends.

trend
Shows the general movement or direction of securities prices. The long-term price or trading volume of a particular security is either up, down or sideways.

trend ratio
Analysts identify trends by selecting a base period, treating the figure or ratio for that period as 100, and then dividing it into the comparable ratios for subsequent periods.

trust deed
This is the formal document that outlines the agreement between the issuer and the holders. In the case of bonds, it outlines such things as the **coupon** rate, if interest is paid semi-annually and when, and any other terms and conditions between both parties.

trust deed restriction
Restrictions set out in a trust deed. See **covenant**.

trustee
For bondholders, usually a trust company appointed by the company to protect the security behind the bonds and to make certain that all covenants of the trust deed relating to the bonds are honoured. For a **segregated fund**, the trustee administers the assets of a **mutual fund** on behalf of the investors.

TSX Alpha Exchange
An exchange that provides trading in securities listed on TSX and TSXV. Order price and volume information is publicly available. Alpha Exchange is wholly owned by TMX Group Inc.

TSX Venture Exchange
Canada's public venture marketplace, the result of the merger of the Vancouver and Alberta Stock Exchanges in 1999.

two-way security
A security, usually a **debenture** or **preferred** share, which is **convertible** into or exchangeable for another security (usually common shares) of the same company. Also indirectly refers to the possibility of profiting in the future from upward movements in the underlying common shares as well as receiving in the interim interest or dividend payments.

underemployed
People who are working part-time, often at jobs that do not make good use of their skills, when they would rather be working full-time.

underlying security or asset

The security or asset upon which a derivative contract, such as an option, is based. For example, the ABC June 35 call options are based on the underlying security ABC.

underwriting
The purchase for resale of a security issue by one or more investment dealers or underwriters. The formal agreements pertaining to such a transaction are called underwriting agreements.

unemployment rate
The percentage of the work force that is looking for work but unable to find jobs.

unified managed account
A type of fee-based account that includes the same benefits as **multi-disciplinary accounts**. Enhancements include performance reports from the respective sub-advisors, outlining distinct models contained within the single custody account.

unit
Two or more corporate securities (such as **preferred** shares and **warrants**) offered for sale to the public at a single, combined price.

unit value
The value of one unit of a **segregated fund**. The units have no legal status, and are simply an administrative convenience used to determine the income attributable to contract holders and the level of benefits payable to beneficiaries.

Universal Market Integrity Rules (UMIR)
A common set of trading rules that are applied in all markets in Canada. UMIR are designed to promote fair and orderly markets.

unlisted security
A security not listed on a stock exchange but traded on the **over-the-counter** market.

unlisted market
See **dealer market**.

unsolicited orders
An order initiated by the investor that is not based on advice provided by the advisor.

valuation day

The day on which the assets of a **segregated fund** are valued, based on its total assets less liabilities. Most funds are valued at the end of every business day.

value manager
A manager that takes a research intensive approach to finding undervalued securities.

value ratios
Financial ratios that show the investor the worth of the company's shares or the return on owning them.

variable rate preferred
A type of preferred share that pays dividends in amounts that fluctuate to reflect changes in interest rates. If interest rates rise, so will dividend payments, and vice versa.

variable rate securities
A type of security that pays interest in amounts that fluctuate to reflect changes in interest rates. If interest rates rise, so will interest payments, and vice versa. See **variable rate preferred**.

vested
The employee's right to the employer contributions made on his or her behalf during the employee's period of enrollment.

volatility
A measure of the amount of change in the daily price of a security over a specified period of time. Usually given as the standard deviation of the daily price changes of that security on an annual basis.

voting rights
The stockholder's right to vote in the affairs of the company. Most **common** shares have one vote each. **Preferred** stock usually has the right to vote only when its **dividends** are in **arrears**. The right to vote may be delegated by the shareholder to another person. See also **Proxy**.

voting trust
An arrangement to place the control of a company in the hands of certain managers for a given period of time, or until certain results have been achieved, by shareholders surrendering their voting rights to a trustee for a specified period of time.

waiting period
The period of time between the issuance of a receipt for a preliminary prospectus and receipt for a final prospectus from the securities administrators.

warrant
A certificate giving the holder the right to purchase securities at a stipulated price within a specified time limit. Warrants are usually issued with a new issue of securities as an inducement or sweetener to investors to buy the new issue.

weighted-average method
An inventory valuation method, calculated as the cost of goods available for sale divided by the number of units available for sale.

withholding tax
An amount of income tax that a financial institution is required to deduct by law from a payment made to the owner.

working capital
Current assets minus **current liabilities**. This figure is an indication of the company's ability to meet its short-term debts.

working capital ratio
Current assets of a company divided by its **current liabilities**. Also known as the current ratio.

wrap account
Also known as a wrap fee program. A type of fully discretionary account where a single annual fee, based on the account's total assets, is charged, instead of commissions and advice and service charges being levied separately for each transaction. The account is then managed separately from all other wrap accounts, but is kept consistent with a model portfolio suitable to clients with similar objectives.

writer
The seller of either a **call** or **put option**. The option writer receives payment, called a premium. The writer in then obligated to buy (in the case of a put) or sell (in the case of a call) the underlying security at a specified price, within a certain period of time, if called upon to do so.

yield – bond & stock

Return on an investment. A stock yield is calculated by expressing the annual dividend as a percentage of the stock's current market price. A bond yield is more complicated, involving annual interest payments plus amortizing the difference between its current market price and par value over the bond's life. See also **Current Yield**.

yield curve

A graph showing the relationship between yields of bonds of the same quality but different **maturities**. A normal yield curve is upward sloping depicting the fact that short-term money usually has a lower yield than longer-term funds. When short-term funds are more expensive than longer term funds the yield curve is said to be inverted.

yield to maturity

The rate of return investors would receive if they purchased a **bond** today and held it to **maturity**. Yield to maturity is considered a long-term bond yield expressed as an annual rate.

yield spread

The difference between the yields on two debt securities, normally expressed in basis points. In general, the greater the difference in the risk of the two securities, the larger the spread.

zero coupon bonds

See **Strip Bonds**.

zero-coupon bonds plus option structure

The issuer of a PPN using the zero-coupon bond plus option structure invests most of the proceeds in a zero coupon bond that has the same maturity as the PPN. The zero-coupon bond guarantees the return of principal at maturity. The remainder of the proceeds is invested in an option on the underlying asset.

Selected Web Sites

If you are connected to the Internet, you have access to all kinds of financial information. This list is far from complete. Many of these sites will have links to other related sites. Remember to type the site “address” exactly as listed. Some sites track usage by asking you for a password. Do not confuse the need to register and provide a password with the necessity to become a subscriber. Some sites offer a limited amount of information for free and require you to register and pay a fee before you can access more detailed information.

BANKING

Website	Link
Canadian Bankers Association	www.cba.ca

GOVERNMENT SOURCES

Website	Link
Bank of Canada	www.bankofcanada.ca *or* www.banqueducanada.ca
Canada Revenue Agency	https://www.canada.ca/en/revenue-agency.html
Financial Industry Regulatory Authority	www.finra.org
Innovation, Science and Economic Development Canada	www.ic.gc.ca
Office of the Superintendent of Financial Institutions	www.osfi-bsif.gc.ca
Statistics Canada	www.statcan.gc.ca

U.S. Securities and Exchange Commission	www.sec.gov

HEDGE FUNDS

Website	Link
Canadian Hedge Fund Watch	www.canadianhedgewatch.com
Credit Suisse Hedge Fund Index	https://lab.credit-suisse.com
Hedge Fund Association	www.hedgefundassoc.org
HedgeFund Intelligence	https://hfm.global/

INSURANCE

Website	Link
Financial Advisors Association of Canada (ADVOCIS)	www.advocis.ca
Insurance Canada	www.insurance-canada.ca

INVESTMENT ORGANIZATIONS

Website	Link
Canadian Deposit Insurance Corporation	www.cdic.ca
Canadian Derivatives Clearing Corporation	www.cdcc.ca
Canadian	www.cipf.ca

Investor Protection Fund (CIPF)	
Canadian Securities Institute	www.csi.ca
Canadian Society of Technical Analysts	www.csta.org
CDS Clearing and Depository Services Inc.	www.cds.ca
EDGAR	https://www.sec.gov/edgar/searchedgar/companysearch.html
International Organization of Securities Commissions	www.iosco.org
Investment Industry Regulatory Organization of Canada	www.iiroc.ca
Mutual Fund Dealers Association of Canada	www.mfda.ca
North American Securities Administrators Association	www.nasaa.org

System for Electronic Document Analysis and Retrieval	www.sedar.com
World Federation of Exchanges	www.world-exchanges.org

INVESTOR SERVICES

Website	Link
BigCharts	www.bigcharts.com
StockCharts	www.stockcharts.com
Globeinvestor	www.theglobeandmail.com/globe-investor
Investorwords	www.investorwords.com
Investopedia	www.investopedia.com
Quicken Financial Network	www.quicken.ca
Stockhouse	www.stockhouse.com
Yahoo Finance	http://ca.finance.yahoo.com/

MUTUAL FUNDS

Website	Link
Fund Library	www.fundlibrary.com
Globe Investor – Funds	www.globefund.com
Investment Funds Institute of Canada	www.ific.ca

NEWS ORGANIZATIONS AND PUBLICATIONS

Website	Link
Canada Newswire	www.newswire.ca
Financial Post	www.financialpost.com
Globe and Mail	www.theglobeandmail.com
Moneysense	www.moneysense.ca

PROVINCIAL SECURITIES ADMINISTRATORS

Website	Link
Alberta	www.albertasecurities.com
British Columbia	www.bcsc.bc.ca
Manitoba	www.mbsecurities.ca
Ontario	www.osc.gov.on.ca
Québec	www.lautorite.qc.ca
New Brunswick	https://fcnb.ca/en/securities
Newfoundland and Labrador	www.gs.gov.nl.ca
Northwest Territories	https://www.justice.gov.nt.ca/en/divisions/legal-registries-division/securities-office/
Nova Scotia	http://nssc.novascotia.ca/
Prince Edward Island	https://www.princeedwardisland.ca/en/information/justice-and-public-safety/securities
Saskatchewan	www.fcaa.gov.sk.ca
Territory of	www.gov.nu.ca

Nunavut	
Yukon	www.community.gov.yk.ca/corp/securities_about.html

EXCHANGES

Website	Link
CBOE	www.cboe.com
CSE	www.thecse.com
Montréal Exchange	www.m-x.ca/accueil_en.php
Nasdaq	www.nasdaq.com
New York Stock Exchange	www.nyse.com
Toronto Stock Exchange	www.tmx.com
TSX Venture Exchange	www.tmx.com

TAXATION

Website	Link
Canada Revenue Agency	https://www.canada.ca/en/revenue-agency.html
Canadian Tax Foundation	www.ctf.ca
Ernst & Young (Canada)	www.ey.com
KPMG	www.kpmg.ca
PricewaterhouseCoopers	www.pwc.com

Canadian Securities Institute

Moody's Analytics Training & Certification Services

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