MACROECONOMICS DEMYSTIFIED

MACROECONOMICS DEMYSTIFIED

Madan Sabnavis



Tata McGraw-Hill Publishing Company Limited

NEW DELHI

McGraw-Hill Offices

New Delhi New York St Louis San Francisco Auckland Bogotá Caracas Kuala Lumpur Lisbon London Madrid Mexico City Milan Montreal San Juan Santiago Singapore Sydney Tokyo Toronto



Tata McGraw-Hil

Published by Tata McGraw-Hill Publishing Company Limited, 7 West Patel Nagar, New Delhi 110 008

Copyright © 2008, by Tata McGraw-Hill Publishing Company Limited

No part of this publication may be reproduced or distributed in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise or stored in a database or retrieval system without the prior written permission of the publishers. The program listings (if any) may be entered, stored and executed in a computer system, but they may not be reproduced for publication.

This edition can be exported from India only by the publishers, Tata McGraw-Hill Publishing Company Limited.

ISBN (13): 978-0-07-025178-6 ISBN (10): 0-07-025178-9

Managing Director: Ajay Shukla

Head—Professional and Healthcare: Roystan La'Porte
Publishing Manager—Professional: R Chandra Sekhar
Junior Sponsoring Editor—BGR: Dipankar Das
Asst. Manager—Production: Sohan Gaur
Manager—Sales & Marketing: S Girish
Controller—Production: Rajender P Ghansela

Asst. General Manager—Production: B L Dogra

Information contained in this work has been obtained by Tata McGraw-Hill, from sources believed to be reliable. However, neither Tata McGraw-Hill nor its authors guarantee the accuracy or completeness of any information published herein, and neither Tata McGraw-Hill nor its authors shall be responsible for any errors, omissions, or damages arising out of use of this information. This work is published with the understanding that Tata McGraw-Hill and its authors are supplying information but are not attempting to render engineering or other professional services. If such services are required, the assistance of an appropriate professional should be sought.

Typeset at Text-o-Graphics, B1/56 Arawali Apartment, Sector 34, Noida 201301 and printed at Adarsh Printers, C-50-51, Mohan Park, Naveen Shahdara, Delhi-110032

Cover Designer: Kapil Gupta, New Delhi

Cover Printer: SDR Printers

RZLYCRQXRAADQ

To Charu and Ragini

Preface

Never accept economic truths merely because someone said so.

Embarking on writing a book on economics is a tough job. The subject is expansive, and one never knows where to start. Should it be the first principles of microeconomics or things that we see around us? A question that comes to mind when deciding to write a book on economics is whether or not it will turn out to be different from the existing series of literature on the same subject. With a plethora of books on economics written by some of the finest authors and economists, attempting to write another one becomes much more difficult especially if some modicum of novelty has to be retained. The challenge is really to be different and fresh, which on first thought seems daunting. The starting point then is to identify the possible audience for such a piece of economic literature.

There evidently needs to be a target audience for such an effort. There are different kinds of writings on economics, which move from the classic and pedantic to the ordinary. Books address the concern of students, teachers and the academic profession in which the idea is to educate or debate over issues. The academic work often goes up to a level that may not be easily comprehended by the layman as views and counterviews are debated and contested — sometimes with acrimonious words. Economists always like to think that they are one up on the others and would go out of the way to prove that they are right while the others may not be. In fact, they disparagingly like to say that the other view holds only in exceptional cases and are hence special cases of their own theories.

This is bound to happen in the academic field where assumptions are modified based on subjective perceptions and different conclusions are reached. The basic premise in economics is that all hypotheses need to be tested against the assumptions made to begin with. If they are contestable, so be it. Critics normally end up questioning the assumptions and come up with different hypotheses. Then, there is the ubiquitous *ceteris paribus* assumption made—meaning other things being constant. But, in life can we ever make such an assumption; although, if we didn't,

viii Preface

then we would never be able to disentangle the causes and effects. After all, economics is a social science in which we study human behavior which is the sum total of actions of myriads of people who work on different assumptions. All this becomes unintelligible for the layman to understand and grasp, though it is an intellectual treat for the pure academic. Therefore, theories start from the Robinson Crusoe case of one man on one island and are extended to several people on several islands, with everyone having their own strategies in mind.

This tryst, which was earlier aided by visual graphs, has now become more esoteric with a lot of mathematics and econometrics being added to provide a different flavor. Almost all economic actions have been reduced to numbers that seek to explain if not conjecture the future. There are generous doses of the Greek alphabet, and the mere sight of the calculus used could be daunting enough to deter further reading, just as the summation across the i-th terms and the j-th number could make you resolve to avoid the subject. Debates that were verbal have now been elevated to different forms of representation of numbers, which continues to elude the layman. One never ceases to wonder how different people come up with different results using the same data and the same theory – there are evidently innumerable ways of looking at the same data.

One reason for the overwhelming dominance of the mathematical representation of economics is that modern economists are rarely pure students of arts. The new breed of economists are either management graduates or engineering specialists who have preferred a career in economics and have tried to specify phenomenon in terms of firm numbers rather than using the proverbial two hands to explain every phenomenon. For the uninitiated, economists are often known to always say 'on the one hand' and 'on the other hand'. It is now apocryphal that this trait had compelled president Truman of the USA to actually demand in desperation a single-handed economist. Mathematics and econometrics try to make the subject more precise, though as stated earlier, it may have added to the confusion when different analysts throw up different numbers.

The addition of this new species to the subject has also meant that while the subject was theoretical to begin with, it has become more complicated as engineering techniques are used to simplify aggregate human behavior in plain numbers. After all, economics is all about studying human behavior and how we react to situations and incentives. Incentives become important as all of us do certain things based on a set of incentives that are offered through policies and tend to react differently in case they change. In fact, it is quite fascinating how these tools have been applied to actually predict human behavior, which of course, has

had its fair share of controversy. This group of academicians, irrespective of the background, is really out of the purview of this book as the idea is to move ahead and not stop to debate every sentence.

At the other end, there are dozens of books for the students, which explain in great detail everything that is to be learnt in economics. The objective, more often than not, is to get through the examination rather than pause to understand the written word. One may know the 16 equation model of the Keynesian system and the four three-dimensional graphs of the working of the economy, but really does not know what Keynes had to say because it is quite difficult to distinguish it from what was said by the monetarists, who also expound their theory with 16 equations and four three-dimensional graphs. One thus ends up learning the equations or diagrams for the examinations and decides never to pick up the subject again, if it can be avoided. They tend to plead, at times, for a book for the dummy, which in turn has induced some amount of literature that appeals to the 'dummy class'. This book will hopefully clear the doubts and get to the basics in a simple way so that the student understands what economics is all about. An attempt has been earnestly made to give examples to illustrate a certain phenomenon so that the diagrams and equations in the textbook look a little more meaningful. Also, by providing multiple views, the student can get out of the normal syndrome of indoctrination, which is pursued in textbooks in which 'reforms' are always 'very good' or 'very bad'. There can be a lot of both in every policy action, which is the essence that is imparted here.

Then, there is the layman, who is neither a student nor pedantically involved with the subject, who opens the newspaper and swallows the daily dose provided by the columns. She reads about inflation being high or low or of an impeding recession or the beginning of a boom. Someone says that inflation is high, while the critic argues that this is not sustainable, whereas another expert actually says that it is low and helpful. One newspaper says that capital inflows are bad, while the editorial says that in the long run it is good, and in the same edition, there is an expert who says that it is good in the short run but could be harmful in the long run. In fact, just after the Budget or Monetary Policy is announced, every newspaper has views of experts including CEOs whose views, when cumulated, cover all options. What is one to make of it? She takes in what she reads and is puzzled when there is a different view presented by another column.

Similarly, every Friday there is an inflation number rolled out by the government which causes equal degrees of frustration and joy as newspaper headlines talk of an all-time high or low. Yet, by the end of the year, the data documents show a more moderate picture. The numbers presented on the same subject appear to be different, and the interpretation

x Preface

is different too, thus leading to a contrary picture. How can this be resolved? This book offers a simple way out.

Hence, it must be stated upfront that this book is not meant for the academic or the theorist who looks into minute details of the working of the economy. There is no attempt made to laud or criticize a view, as the idea is to see things beyond the white and black squares on the board. It is meant partly for the student who should be able to grasp what economics is all about so that the equations and diagrams that flood the textbook make a little more sense. It is primarily meant for the layman, who hopefully can relate the explanations given here to the oodles of contradictory views she reads in the press everyday. This, in short, is the target audience—anyone, who wants to know something about what one reads in the papers and is not in a position to go to the library to understand the jargon that goes with it.

There is a lot of poetic license used by economists or those pretending to be the same to work from a conclusion and then build up arguments to convincingly support it. This is not really difficult to do and it is said with a touch of irony that if 10 economists are lined up, there would be 21 opinions—20 because no economist has a single hand, and the additional one because economists still never get the numbers right. In fact, the same economist over her life cycle would have contradicted herself 'n' number of times, but will have cleverly placed arguments which hold logically, theoretically, as well as mathematically.

In fact, George Bernard Shaw said, "If all the economists were laid end to end, they'd never reach a conclusion".

This book is, in a way, meant for one in a hurry who does not have the time to think deeply while going through the pages. There is, therefore, the need to demystify concepts that can be easily digested so that one is in position to take an independent view. The briefs are short and to the point and attempt to explain all perspectives as tersely as possible without at any time omitting the finer aspects. The focus is on moving on and to carry and think deeper after hearing the arguments on both sides, which is the way it must be. At times, there is use of the author's license to repeat concepts so that individual chapters become stand-alone ones.

Madan Sabnavis

Acknowledgements

The conceptualization of this book germinates from relentless acceptance of articles on economic subjects by the editors of various newspapers. The logical corollory to having sufficient exposure to writing for the layperson was to write a book on the subject for him/her. The credit for a twist in the style of writing goes to these editors who even today ask me to make the words simple so that the person in the bus or train can understand what is being said.

Gratitude for this effort have to necessarily go to my initial stint in writing for newspapers. In 1988, Mr. Swaminathan Aiyar gave me the first break in *Financial Express*. This was followed by a weekly column in Financial Express called 'Banker to Banker', which was permitted to be introduced by its editor, Mr. R. N. Bhaskar. The break came in 1994-95 with the then Money and Banking Editor of *Economic Times*, Mr. Rajrishi Singhal giving me a column to write in. From 1997, this column went by the name of 'Mozart' for about five years, when the management of the company I was working for put a freeze on my freelance writing. I am grateful to Mr. Singhal and, later, to Mr. Sugata Ghosh for their cooperation and encouragement. This really helped to keep the flow of my writing, albeit without a name. Financial Express under Mr. R. Jagannathan was generous with my writings and allowed me to pen my thoughts under my wife's maiden name. Subsequently, the editors of *Business Line*, *Business* Standard (Mr. Sunil Jain and Mr. T. N. Ninan), Hindustan Times (Mr. Indrajit Hazra), DNA (Mr. Sidharth Bhatia) and Indian Express have been supportive of my writings.

Then, the credit for this effort goes to my wife, Charu and daughter, Ragini, who have been my ego boosters and have always led me to believe that I could write this book. I am thankful to my parents for their constant encouragement, especially my father, Dr S.R.K. Rao, who is a renowned economist. It could be said that it is in the genes. My brother Madhukar, who is in the advertising world has been a source of inspiration.

The McGraw·Hill Companies

xii Acknowledgements

And finally, I am grateful to McGraw-Hill Education, India, for giving me the privilege.

MADAN SABNAVIS

Contents

Preface	vii
Acknowledgements	xi
Introduction	1
1. A Walk-through Theory	8
Getting to Know the Market 9	
The Classical School 12	
A Solution from Keynes 16	
The Fall of Keynes: Discovering Stagflation 19	
Monetarism, Classical Principles Once Again 21	
Enter Supply-side Economics 22	
Economics Becomes Rational 23	
Now What? 26	
2. Econometrics: Your Actions, in Numbers Now	27
The Rudiments 28	
Entering a Dangerous Territory 31	
Should We then Dump these Models? 33	
3. Gross Domestic Product: Basis of Growth	35
Interpreting the Numbers 35	
Defining Across Countries 38	
Some Puzzles 40	
Story of Economic Transition 40	
Normative Issues 43	
Economic Systems 46	
The Mixed Economy Set-up 49	
Is there a Perfect System Then? 51	

xiv Contents

4. Getting to Know the Government	52
Rudiments of a Budget 52 Number Crunching 54 How Does the Government Borrow? 60 The Privatization Puzzle or Muddle? 61 How then can Incremental Revenue be Raised? 63	
5. Money, its Supply and Monetary Policy	67
The Crux 68 Money Supply Defined from the Credit Side 69 Monetary Policy 70 The Transmission Mechanism: How Does Monetary Policy Work? 73 Understanding Interest Rates 75 Is there a Conflict of Interest? 77	
How Often Must We Have the Monetary Policy? 79	
6. Banks and Banking	81
Rewinding Banking History 81 The Turning Point 84 Mindset Metamorphosis 85 Innovations Ahoy 88 The Move to Universal Banking 89 The New Fad: Micro Finance 92	
7. Capital Markets	95
The Rudiments 95 The Main Drivers 97 What Drives the Share Prices Then? 99 Disintermediation 102 The Rise of Credit Rating Agencies 104 Emergence of Derivatives 106	
8. Inflation	108
The Twin Issues 109 How to Present the Numbers? 111 Is there a Benchmark? 114 Why Do Central Banks Target x% Inflation? 115	

Control of Inflation 116	
Ultimately, What Must One Do? 117	
9. The External Sector	118
The Balance of Payments 119	
Why Borrow from Overseas Markets? 122	
Rising Forex Reserves, the Trigger of Monetary Problems	124
The Exchange Rate 124	
How Should the Exchange Rate be Moving? 126	
So, How Do We Evaluate the External Sector? 127	
Capital Account Convertibility 128	
10. A Breather	131
11. Economic Reforms	134
Pre-reforms Period: A Self-enforcing Status Quo 135	
How Did the Change Come About? 139	
A Look at Reforms 142	
Have Reforms been a Success Story? 148	
12. Globalization	151
What is Globalization? 151	
The Proliferation of Globalization 152	
Advantages of Globalization 156	
Are there Any Pitfalls? 158	
Back to Reality 160	
How to Tackle Globalization? 161 The Euro: A Giant Step Ahead in Global Unification 162	
Has the Euro Worked? 164	
13. Trade Talks: WTO	166
Why Protect Your Own Turf? 166	100
How to Stop the Free Flow of Goods? 168	
The WTO 169	
The Reality 172	
More Problems with Discussions 174	
How Else to Stop Free Trade 175	
Where Lies the Road Ahead? 180	
Is Clobal Integration Good or Rad? 181	

The McGraw·Hill Companies

xvi Contents

14.	. Asian Crisis	183
	How Did it All Start? 184	
	How the Infection Spread? 185	
	New Ways of Thinking: Lessons Learnt 187	
15.	. Sub-prime Crisis	191
	The Genesis 191	
	The Turnaround 193	
	Enter Securitization 194	
	The Contagion? 195	
16.	. Concluding Remarks	199
	Suggested Readings 200	
	Index	203

Introduction

"Economics is a subject profoundly conducive to cliché, resonant with boredom. On few topics is an American audience so practiced in turning off its ears and minds. And none can say that the response is ill advised".

John Kenneth Galbraith

The objective here is to accept this premise and then seek to make it more exciting and less clichéd. The purpose, therefore, is to explain the theories, analysis and thought processes that underlie the subject as well as the concepts in economics in plain language which may be used to interpret some contemporary issues. The challenge is to present the concepts in a story-like fashion so that the reader does not get distracted very easily. It is challenging because while the subject is very interesting, it being a social science, the concepts tend to get pedantic at times, which can make simplification a bit difficult.

How does one go about doing it? To begin with, there are no diagrams and equations and only limited numbers are used. Diagrams tax one's thinking or else oversimplify human behavior when using the linear assumption and can be eschewed. Equations usually tend to put off the non-academic reader and the last thing for the uninitiated is to have equations doing the talking, more so when the same can be explained quite simplistically in prose. Numbers are useful but tend to get dated, which again sends confusing signals as it gets difficult to relate to the subject when the number changes. For instance a current growth rate will send a wrong signal if read after a year, especially if the direction changes, which happens often. Therefore, a limited quantity of numbers has been used here only for illustrative purposes to drive home the point at times and should not be looked at critically. More importantly, if something can be explained without having to quote data, it is better to do so in a rudimentary manner.

While some jargon has been thrown in to make the reader acquainted with Econometrics, which is inescapable, it has been simplified so that the reader can use the terms even if s/he does not know how it is derived. The computer programs do this work for us anyway quite easily and there is no need to ever try and solve them on one's own.

More importantly, there are no references provided. However, there is a suggested reading list which may be used whenever it is convenient for the reader because they are simple to read and very incisive in analysis. Besides, they are good pieces of literature. This makes life easier as it is just not possible for one to pick up a book on Keynes and then try and figure out what he had to say. The same holds for Friedman or Phelps or Lucas. One will never know where to begin and hence it is better to take things at face value. The reading list helps to better understand the way things work, as the authors are some of the best exponents on the subject.

The journey begins with an overview on the evolution of economic theories and the different ways in which they can be interpreted. This is important because all foundations of economics are based on some theory and it is always useful to be acquainted with it. Besides, theory helps one to explain contrary views on the same subject. Appreciating economic theory is necessary because as Immanuel Kant said, "no one can claim to have acquired practical knowledge in a particular discipline and at the same time despise theory without revealing that he is an ignoramus in his field".

Then, there are several interpretations of the same theory and there is an entire genre of literature that debates over what Keynes said and what Keynes meant. This is so because there are different ways to interpret the same findings of an economist as they have progressively also tried to juxtapose economic theories with reality and then figure out what the famous economist had actually said. Despite all these debates and controversies, we have seen that there is more or less a fixed core set of theories that is all-encompassing and is used by both the policy-makers as well as critics to drive home their own points. Others are mere modifications or variations of these core theories.

Once this is understood, the basic concepts are explained sequentially while simultaneously highlighting the way in which data can be presented or misrepresented and what one needs to look out for. This is more in the league of standard textbooks in which all macro concepts are explained in some detail. The idea is two-fold. The student, who is often caught up in the finer details of what the concept is, can actually get a hold on the subject. The newspaper reader on the other hand is shown the different

ways the articles and columns in the pink papers are interpreting the numbers. Therefore, the concept of GDP is explained in terms of what goes into it, which is useful for the student while for the readers, interpretation and presentation of the concept is explored. Hence, issues like comparison between a growth rate of 10% in a country like ours' with a 3% growth in the USA is discussed so that one is able to understand the numbers. Also certain qualifications are added along the way, such as, say, the quality of growth—something that the casual reader may not really have stopped to think about. This is important because very often we get carried away by the standard Economic Review documents brought out by the government, which eulogize the performance of the economy and may take it that 9% growth is an excellent performance. But, there are questions to be asked and the purpose here is to provoke the reader into asking them.

The sequencing of the concepts is aligned with the patterns followed in economic documents. The concept of GDP and growth is first explained along with the composition and the reflection of the prevalent economic systems. Here, there is a deviation to the world of Adam Smith and Karl Marx, which covers the political economy concepts that were in fashion at one time. This is important because different countries are in different positions today because of the political economy model that were pursued by them. Therefore, these theories allow a peep into these circumstances and also lead to the present drift towards liberalism and dependence on the market mechanism. Along with the concept of absolute growth, the 'quality' of growth is discussed, because today if the country grows but all people do not, then there is a source of potential social friction. Therefore, the distribution aspects are also discussed in some detail. Such a discussion invariably has to go through the economic ideology, which dominated the formation of different economic systems and what went behind the scenes.

The next area is then the role of the government in an economy and the different conundrums facing the fiscal authority are brought to the forefront. Governments play a very important role in the functioning of any economy and even the most capitalist state cannot do without the government sector. This is so because everyone's life is affected even in the economic sense by the government. Taxes affect or rather hurt everyone while incentives and subsidies favor certain sections of society. Similarly, government expenditure helps build the physical infrastructure of the country and while a deficit is scorned at, it may help to kick start the economy if it is on the precipice of a recession. There are public goods which all of us need but are not willing to pay for.

Along with this exposition, the new waves of thought like privatization are debated. As far as possible an attempt has been made to present both sides of the picture because it must be realized that every aspect of the government has a firm reason for being there. So, while times change and strategies change, a transition to a new paradigm is always a challenge. Therefore, when changes are radical, the shift in thrust and policy needs to be gradual. Hence, at times, the reader may get a feeling that there is a bias towards the socialist form of governance as the more commonly accepted principles of self-interest-oriented markets are critically looked at, often as the other side cannot be ignored. But, on the whole, the objective is to present a balanced picture.

As the major economic concern of a responsible government is quite necessarily on the monetary front, the concept of money is explained. Money supply is today one of the most important links between the real and the monetary sectors and monetary policy has come to occupy a very critical place in the entire policy framework, after fiscal policy. As an arm of the government decides monetary policy, it has to necessarily take second place to fiscal policy where the broader policy framework is postulated. The monetary policy mechanism is important to grasp because a lot of our policy measures today inspire a varied set of reactions from the industry. Interest rate-cuts are commented upon and we are constantly being told that the market is happy or unhappy or had already buffered in these expectations. It is, therefore, necessary to know why the central bank does what it does and what the targeted goals are.

The next step is to understand the role of the central bank and its functioning. This naturally leads to the concept of banking and the way in which the system has evolved over time. Some of the regulatory concepts that have become very important today are described in a contextual framework so that concepts like capital adequacy and non-performing assets make sense. With the current train of thought being on inclusive banking and reaching out to the lowest common denominator, the discussion steers around microfinance which is a very popular concept these days as it provides a very 'caring feeling' to a commercial business like banking. As banking and the financial sector reforms are explained, the next topic then is the capital market which is the agent for disintermediation.

Views on the capital market are always controversial because it involves the creation of wealth, which means a lot to everyone without ostensibly any economic basis. We have seen how the markets keep booming even in crisis situations. But, all of us welcome this wealth creation, which is the crux of having a well-developed market with benchmark indices spewing optimism all the time. The factors that drive

the capital market need to be known because when people talk of irrational exuberance in these markets, one needs to know why movements are irrational, especially so since we are being told that this market is always efficient. Further, the role of foreign investors is highlighted to understand how the center of gravity changes with their inclusion.

The understanding of the working of the monetary sector invariably leads to issues relating to prices and here the linkages and concepts are explained in some detail as this is where invariably the perspicacious analyst uses the trump cards. It is amazing how the inflation picture varies depending on the concept that is used by the analyst and the way the time periods are adjusted to get different results. Comparing a monthend index with a month-end index yields a different picture from that when an average of months is considered. Further, the representative nature of an index is debatable, as we may not be consuming the index of commodities. How does one get around this issue? Also economic theory is always in operation and understanding the causes of inflation is critical for monetary policy implementation. An understanding of the reasons and components of inflation helps in monetary policy appreciation.

The concept journey ends with the external sector, which could be the beginning of all problems for a country. To know more about this linkage one needs to understand the balance of payments of a country and its components. Once this is grasped along with the issues that drive these numbers, one can follow the determination of the exchange rate as well as the consequences of its movements. The exchange rate, as we have seen, is one of the most talked about variables and everyone is tracking the dollar–euro relation. While it directly affects only those who deal with foreign currency, this simple number has even more far-reaching implications for policy framers as various entities and sectors are affected even when nothing changes in the country. Hypothetically, if the Indian economy is cruising along, but the dollar declines vis-à-vis the euro, then there can be financial turmoil within the country and will require policy intervention. That is why the economics of exchange rates is important.

Therefore, in order to develop a logical train of thought, different aspects are presented and various angles of the theoretical framework are examined in some detail. But, there may still be some dimensions that could be missing and hence there is no claim for the work to be exhaustive, because in economics making such claims is risky as there always tend to be more views that may not be known to everyone. That is the economist's job anyway. The book hence goes beyond being a descriptive dictionary and relates the issues with the subject, hopefully in an understandable manner.

This done, the journey meanders to some of the more contemporary subjects in which facts are presented with views, which may not be very novel but are nevertheless scenarios read by the reader in some journal or newspaper. Examining the process of economic reforms is a beginning. This is critical not just for India but also for other countries which are moving towards a market-oriented set-up as it does appear to be a package, which, though was dictated by the IMF, has become a useful road map for countries which intend to open up their economies. Given that this was a package that is more or less standardized, the logical destination would be the notion of globalization.

Thomas Friedman's, *The World is Flat* best explains how the world is becoming smaller and boundaries are becoming blurred. That's because nations are getting closer to one another with the combination of economics and information technology. It may not be long before politics as a barrier to free movement of thoughts and tangibles between countries could become less important. Globalization is a term that is used very often today and has almost become the reason for anything that is desirable, albeit from the market perspective. There is an attempt made to define the contours of globalization and then highlight the conflicting views on the subject. Is globalization symmetrical across countries and do all countries benefit from this process or is it that the rewards are distributed in a skewed manner? Are the countries that are talking of globalization dragging in those that are not yet prepared for the same? These are some questions that are posed and the views on both sides shared.

One of the success stories of globalization has been the euro, and the path to its creation as well as the implications for other countries are examined in some detail. If 15 countries could get together and accept not just one currency but common economic goals on the downside, then it is a remarkable achievement. But, there is considerable pain along the way and the issue is again brought to the fore for discussion. Some of the current problems of bearing the adjustment for the dollar's decline are also discussed because this is a lesson for others who would like to follow the same path in the future.

If the euro has been a singular success in the process of globalization, the WTO, which is over a decade old now, must be the most frustrating experience. But this story is fascinating because any attempt at getting over 150 nations to agree to rules of trade which affect every country in a disparate manner is daunting, and the fact that a lot of progress has been made is amazing. Lower tariffs and few quantitative restrictions dominate the trading globe today. There are acrimonious battles over subsidies and non-goods related issues. But the fact that they are being

discussed progressively and nations are becoming less intransigent is a positive sign in itself. One can be hopeful that maybe in the next 5 years or so there may be a globally acceptable solution — that is why trade talks are on even today.

Finally, some of the more contemporary events like the Asian crisis (a decade old) or the Sub-prime lending crisis are described and analyzed to highlight the probable pitfalls of globalization. Maybe not so really, but since these events have actually spread across the globe because of closer economic integration, has made it appear to be so. All uninvolved countries were affected in some measure. These are just examples of what can go wrong and how things must be set right. But, it must be remembered that no one can anticipate a crisis because there are no fixed patterns in an interdependent world. Things may look odd, but there are always self-correcting mechanisms in place including direct policy intervention. But these mechanisms also falter at times and then the correction process begins, albeit after causing considerable pain.

There are theories enunciated by economists like Joseph Schumpeter, which argue for such correction because this is one way of the inefficient elements being rooted out of the system – an extension of the principle of economic Darwinism. So the fall of Barings was a good thing as was the collapse of Enron, as there is a cleansing mechanism that is set in motion, which on deeper thought is essential. More importantly, the system becomes stronger with each failing as new systems are invented and players become much more cautious in future. The learning process, after all, can never end and to think that we are living in a perfect world would be too audacious. Therefore, corrections, which are euphemisms for crises have to take place periodically to cleanse the system and it is important to learn rather than blame the systems that led to their eruption.

As far as possible, there are no dogmatic views taken, but the contrary view is high on the radar because there is always the need to know the other side of an argument. As far as possible, all views are presented and it is hoped that the reader will be able to add to them after going through these pages and provide a feedback for the next edition. The objective, as stated in the beginning, is to equip the reader with the tools and the questions that need to be asked every time we see something that looks suspiciously out of place with the apparent reality. If this can be done sometimes, then the book would have achieved a great part of its objective.

To borrow some words from what Milton Friedman had said, "The role we play as intellectuals is not to persuade anybody but to keep options open and to provide alternatives that can be adopted when people decide they have to make a change".



A Walk-through Theory

"The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed, the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back... Sooner or later, it is ideas, not vested interests, which are dangerous for good or evil".

John Maynard Keynes

Economic theory when taught in classrooms always sounds boring and monotonous. This is so as there is a tendency for one to get bogged down, previously with diagrams, and more recently with mathematics. Simple tenets are explained with innumerable diagrams or equations and this can overwhelm the student. While there is a need to know the logic behind any theory, it may not always be necessary to understand these finer aspects unless of course the student intends to make a career in academics and probably contest these equations or graphs. Demystifying the jargon in the subject is necessary and it is possible to understand these theories in terms of what happens around us so that it is easier to relate to the tenets of various theories.

Macro economic theory has undergone a gradual metamorphosis over the centuries with each event giving rise to a new way of thinking. It must be realized that if one were to explain how an economy functioned, it would invariably be based on the limited knowledge of the past and of the present as is known to the theorist. Hence, in a way, models are almost always right. The test comes when there is an unforeseen event and there are always several of them in this uncertain world. Who could

have ever guessed that there would be a world war or a depression or an oil crisis? These shocks in turn lead to further deliberation and the established shibboleths are questioned and altered to lead to the creation of new theory. Hence, all economic theories are evolutionary and no sound theory could be wrong as it would have been formed on the basis of prevailing conditions, which may no longer hold now. Further, with the changes that we have seen in the political ideology over the years, theories have been formulated and implemented to justify them. The sudden growth in the technology sector and the progressive proliferation of the globalization process has called for several policy prescriptions which were never contained in any macroeconomics textbook, which are probably being rewritten today.

But, quite ironically, if one does have a grasp of the major evolutionary theories that have been propagated in the past it would be realized that they could explain almost all occurrences. The ancient economic tenet of comparative advantage that was propounded by the economist David Ricardo for foreign trade, which came in the form of several diagrams and graphs in the textbook, is actually the basis of all globalization in the world. If a lot of the BPO (Business Process Outsourcing) operations of global majors are shifting to India because of the cost advantage, it is basically David Ricardo in direct action even after more than a century.

To begin the exercise of understanding economic concepts, it is hence instructive to pay a visit to the traditional textbook and take a ride through what the major schools of thought were all about. All of it, somewhere or sometime, always plays an active role in guiding our policy-making and, while the debate carries on, it keeps adding new perspectives, thus enriching our own understanding of the subject. A walk through this exercise is the starting point from whence other concepts could be understood and debated so that one is in a position to confront some of the more contemporary issues, which will dominate the economic horizon in times to come and be in a position to take a definite view on the subject.

GETTING TO KNOW THE MARKET

The origins of economic theory can be traced to Adam Smith (known more for the book *Wealth of Nations* and the creation of the 'invisible hand') who was a proponent of modern day *laissez-faire* capitalism. *Laissez-faire* essentially meant free operation of the market forces that could be relied upon to reach economic solutions. In economics, a solution is invariably an equilibrium position at which all theoretical conflicts are settled, i.e., demand equals supply. However, the concept of equilibrium need not be taken literally and must be interpreted more as a measure of

an acceptable position of any economic variable. We hence accept a position of equilibrium in case growth, unemployment, inflation, money supply, exchange rate, etc., are within acceptable or tolerable limits given the prevalent economic environment. For this to happen, he preferred the use of the market mechanism to determine the prices of all goods and services. Market mechanism assumes that there is some unseen force, which resolves all conflicts so that the decisions finally reflect the economic value of the object under discussion. This is different from a regulated system (like socialism) in which all such decisions are taken by the government.

Goods here include physical commodities, foreign currency, bonds and money while services include labor, capital or land whose prices determined are wages, interest and rent. Simply put, he felt that for any 'good' or 'service' there is a large number of buyers and sellers who represent the demand and supply for the same. Each person enters the market with a fixed notion of a price and adjusts his willingness to deal with the commodity depending on the price the counter-party is willing to offer. As there are millions of such players for every such market there is, in effect, an implicit auction being conducted, albeit unknowingly. However, all such actions are guided by an 'invisible hand' which ensures that there is equilibrium or a solution which is optimal. Or more simply stated, the price for the good or service is determined in an optimal manner and truly reflects the cost of the product.

It is analogous to a shopping experience for your daily purchase of groceries where you look out for the best price being offered by a salesman. You will pick up the commodity from the place where the lowest price is offered. As other sellers get to know the terms of trade between you and several other customers with the seller who sold at the lowest price, they would readjust their prices so that a stable price is set in the market. Ideally, with other conditions being the same (also referred to as ceteris paribus), only one price can prevail in the market (assuming here that the product is the same—a dollar is a dollar everywhere) or else there will be arbitrage opportunities whereby one can buy in one market and sell the same in another. This arbitrage ensures that only one price prevails. For example, this analogy can be taken to the market for steel. If the price is higher in the north compared to the south, the person would buy in the south and sell in the north after adjusting for costs such as taxes and transport and by doing so will increase the supply in the north until it is equalized in both the markets.

The two critical assumptions here are that there is perfect information available to all and sundry, and that there are a large number of players. Information is important because if there was any asymmetric information

in the system, then there could be different prices because every individual would be taking a decision to buy or sell without having complete knowledge of the market conditions. Absence on information on the prices prevailing in other outlets would make one purchase at a non-optimal price. Today, a good way of providing a signaling device to all is to have the maximum retail price stamped on all manufactured products. This ensures that the consumer anywhere in the country is getting it at the same price. However, this will still not stop one from selling at a lower price, but to make this successful, it has to be advertised and made known to the people at large. This will not hold in, say, the vegetable market where one will have to actually move around to get the best deal. The other side of this coin is that if one were to charge a price higher than the normal, then product differentiation would be necessary. As a seller or manufacturer you need to prove that the product that carries a higher price tag is superior to the one that has a lower price. Advertising is one way of information dissemination as well as product differentiation.

The other assumption is that there are a large number of players. Such an assumption is essential because perfect competition requires this so that the iterative auction process is conducted in an orderly manner and that there are no tendencies of cornering of the market. The word large is rarely quantified but could be in thousands or even millions. Absence of this assumption leads to the existence of monopolies or oligopolies (few sellers such as, say, OPEC) or even monopsonies (single buyer) or oligopsonies (few buyers like the Railways for wagons). Such groupings do provide good bargaining power where the other side has to relent for a transaction to take place. To take an example, if there are a large number of cement companies in a region where there is only one builder or a small group of builders, then the latter can get together and drive the price down as the sellers have fewer options. But, if there were a large number of players on both sides, then the price determination process would be fair and efficient. However, if you look around, you will realize that rarely do these ideal conditions exist and, more often than not, there are some groups that are exerting greater pressure on the pricing system.

While both these assumptions are fairly strong ones to have today, they are nevertheless pertinent. Today, information asymmetry is getting diluted in the developed and developing countries and there is a gradual move towards convergence in accessibility to information. This has been enabled through technology particularly where information is available across the world. We have seen that when foreign trade takes place across countries, prices really come down under the force of competition. China kept producing cheaper goods to crowd out other players from the market.

In contrast, in a controlled economy, the government sets the price and lets it be known to all, and while there is reason to believe that it is fair, it may not be efficient because the price is being determined exogenously by a third party without looking at the market conditions — which do not exist. A good example here is the price of petroleum products in India, which are fixed on non-economic considerations by the government.

However, the assumption of a greater number of players is less realistic as even the large nations like USA and Japan are finding it difficult to control the buildup of monopolies, or oligopolies for that matter, and are trying to get in the necessary legislation for the same. There has been a tendency for their creation and proliferation even today with the spread of mergers and acquisitions, where companies are buying up competitors to increase their market share and wield monopoly power, especially pricing power, in the market. However, as J.K. Galbraith pointed out three decades ago, there has also been the tendency for the rise of 'countervailing power' in these countries, which effectively thwart the growth of these tendencies. But still, it is possible to say that markets are more active than they were in the past and the assumption of a large number of players in the market is not a very unreasonable one to make.

Now, given that market forces determine prices, they would be driven by an invisible hand, i.e., we do not have a formal electronic platform as in the securities or commodity markets, but they would gravitate towards a single price in course of time. Hence, all markets clear at equilibrium prices. This was the crux of the market system typified by perfect competition where markets cleared. Stretching this tenet further, it also meant that demand would always equal supply in each and every market, as supply would always be based on demand. If there were no demand, there would be no supply and hence overproduction would not be possible.

THE CLASSICAL SCHOOL

Economic theory classifies the markets into three parts: the goods, labor and money market with a separate demand-supply schedule for each of them.

The starting point is the goods market where there is demand for a product, which would automatically create supply. In fact, this statement was quite tautological because it was felt that supply creates its own demand as goods won't be produced unless there is demand, and demand would lead to creation of supply simultaneously. The critical cost would be labor wherein the labor market would provide employment to all those who were willing to accept a given *wage*. If demand for goods rose,

then industry would need more labor and if supply was limited and not adequately forthcoming, then wages would move up. Wages on the other hand were not fixed irrespective of the developments in the goods market. If *prices of goods* rose due to shortage of goods in the market, then labor would adjust to the same and demand the same real wage. Real wage, or any other real variable in economics is simply the wage (or variable) divided by the price. This is critical because it was felt that nobody suffers from 'money illusion' and feels richer merely because he has more money. The individual always adjusts the same with inflation. We are also constantly complaining of the increase in our salaries being illusory because prices move up by x% every year.

The other factor, i.e., money, was considered only a facilitator of transactions and hence there was a distinction between the monetary and real sector. The real sector is where physical goods are produced which, in turn, affects the level of employment, which receives a remunerative wage in return. But to facilitate this production, we needed money, which was used primarily as a medium of exchange. 'Money' in the money market determined the third important price, i.e., interest rate based on the relation between the demand and supply for money. The government controlled money supply through the central bank while demand came from the goods and labor market. This was, hence, a fixed amount determined by the authorities. As demand rose, given an unchanged supply, interest rates would move to reach equilibrium.

Intuitively, it could be seen that the money to be supplied was a function of the goods produced in the country and this led to what came to be known as the Quantity Theory of Money, expounded by the economist, Irving Fisher. This theory was simplified in the form of an equation and was represented by the identity: MV = PT. M was money supply, V the velocity of circulation, P prices and T the total volume of transactions. T was fixed by the assumption of full employment always existing (explained later). Velocity of circulation was the number of times a currency note circulated in the country and money supply only facilitated production. The price movements did the balancing.

The total number of goods produced was fixed by the market based on demand and supply, with the adjustment taking place in the labor market too. Jean Baptist Say, a French economist, who said, "supply creates its own demand" simplified this. What he presumably meant was that you would not produce goods if they could not be consumed or were not in demand. Therefore, this market was always in equilibrium. This meant that the labor market would also be in equilibrium, as all those willing to accept a wage consistent with the demand for labor would be offered one. The only unemployment in any country would be

voluntary, meaning thereby that there were jobs for people who did not want to work for some reason or the other that was out of the purview of the market which was willing to employ anyone at a given market wage.

The velocity of circulation was fixed historically and changed very gradually. It would change over time as habits changed, but as this happened over decades, this factor would be constant most of the time as defined by history. The growth of credit and exotic products has, in fact, made this constancy less pertinent today especially with the proliferation of credit cards whereby a larger quantity of money is generated with a fixed base of currency. But in the past, this was probably an acceptable assumption.

Hence, there was a direct relation between the quantity of money and prices. If more money were printed, then it would be used for spending. Now, if goods production was fixed at the optimal level, which in economics is defined as that of full employment of resources, then this increase had to translate into higher prices or inflation. The reasoning was straightforward. Higher growth in money supply increased the purchasing power of the people who would bid for the same quantity of goods and services. Equilibrium would be reached only when the price level rose.

Therefore, when the central bank talks of excessive money in the system, it essentially implies that the production capacity is operating at an optimal level and goods cannot be produced any more until such time that we increase the capacity. In its absence, the situation is inflationary, which is defined as the rate of change in prices. So while full employment is a misnomer, the absence of spare capacity is the concept, which comes close to the former. In some countries it is felt that even with 90% capacity utilization, the economy can heat up with inflationary fears ascending. In such a situation, excess money leads to higher demand, which ends up in higher prices.

Hence, there was a separation of the real and monetary sector with the monetary sector supporting the real sector by facilitating payments. But real production of physical goods took place in the goods markets with the critical input labor being supplied by the labor market.

This system was sacrosanct and was believed to hold almost always with only temporary aberrations. The market mechanism worked well even between countries, as there was something called the Gold Standard, which fixed the price of every currency with gold. As a country consumed more than it produced there would be a deficit in the form of imports, which had to be made up by physical movement of gold, which in turn was the basis of monetization of the currency. When gold was shipped

out, central banks would lower the money supply, thus reducing the demand for goods and services. Therefore, the current balance of payments problems were automatically taken care of by gold. This system worked fairly well until the end of the first World War.

The problem really began with the war, as there were large-scale reparations that had to be made to the Allies. High levels of reparation, which was anywhere between \$4–5 bn, led to hyper-inflation in most of the European countries. For the Allies, the restoration work took a toll involving large sums of money, which put pressure on the ability of banks to increase money supply through credit lines. Earlier, a liberal monetary policy allowed for cheap circulation of money through low interest rates and investors poured the same into the stock market thus stretching the stock indices especially the Dow Jones to great heights. This was supported by the USA, which helped Britain return to its prewar level of parity for gold. With high inflation in the US, asset prices of both stocks and bonds got inflated, after which tightening meant a sure movement towards a recession.

To compound this crisis, the stock markets crashed in 1929 leading to large-scale recessionary tendencies. The result was not just a recession but also a depression, which means falling prices and rising unemployment. As countries cut back on expenditure, their trade balances improved, but the importing countries were affected as they witnessed a fall in demand for their goods. As this cycle set in, each country tried to export its unemployment to the other, which is typical of a recession. One can see how countries prevent their currencies from appreciating as they lose an export advantage and hence export the recessionary forces. This came to be called the 'beggar my neighbor' policy, which spread quite easily across the globe. Competitive devaluation took place across countries with each one trying to protect its exports. Curiously, even in the recent so-called crisis situations when currencies fall, it has been observed that other countries follow the suit to protect their own turfs. Tariff rates, which were around 25%, doubled to 50% in a couple of years to prevent imports. As countries faced unemployment, they became more protectionist, thus exacerbating the recovery process. Say's law collapsed because he felt that supply always created demand. However, now there was excess supply but no demand because people had no money to spend as they were out of work.

Milton Friedman and Anna Schwartz in their book *A Monetary History of the United States*, 1867–1960, said that, "the highly conservative monetary policy followed by the Fed beginning in 1930, completely failed to counteract the tidal wave of bank failures in the early 30's". Simply put, when a bank fails, a large amount of money disappears from the

economy, which has a depressing effect on prices and a stagnating effect on business activity. Depositors were not insured at that point, many losing all their savings. Business customers also lost their money and could not finance their activities; thus everyone linked to the bank or its customers was economically paralyzed in one way or another, including other banks. When a bank fails it was felt that the Fed had the option to either bail out that bank by lending it money or to lend more money to other banks to fill in the shrinkage in the money supply. The Fed refused to replenish the banking system sufficiently even though the money supply was shrinking due to hoards of bankruptcies and bank failures. There was a feeling of $d\acute{e}j\grave{a}$ vu in 2007 when the Sub-prime crisis (Chapter 15) provoked similar regulatory responses from the Fed to begin with.

Friedman had traced the roots of the catastrophe to ill-conceived Federal Reserve policies and passage of the protectionist Smoot-Hawley Act. Between 1921 and 1929, the US money supply grew more than 60% by keeping interest rates low which in turn encouraged risky loans and excessive borrowing. When the Federal Reserve suddenly began raising interest rates in 1929, business activity was choked off and profits began to fall, precipitating the market crash. The Smoot-Hawley Act raised tariffs in 1930, sparking international trade wars and destroying markets for U.S. exports. Two years later, Washington passed what was then the biggest peace time tax increase in history and then added insult to injury by establishing Social Security, which necessitated more taxes and added to labor costs. As thousands of banks failed, the money supply dried up falling by one-third between 1929 and 1933. Now, wages and prices should have fallen which would have led to more jobs and greater sales, but politicians did all they could to prop up wages. By 1933, unemployment peaked at 25% of GDP (gross domestic product), which hit the bottom.

A SOLUTION FROM KEYNES

While this was a phase of physical suffering for the masses, there was a revolution in the making at the level of economic thought. This was where John Maynard Keynes came into the picture. He viewed the Depression in a different way. Looking at large-scale unemployment caused by excess supply conditions, as supply did not guarantee demand, he saw that the only way excess supply could be counterbalanced was by creating demand. Providing people with money to spend could create demand. In such a situation it did not matter if it made economic sense. Generating demand by itself was a good enough motivation to start a virtuous circle of growth through spending. He put it facetiously by saying

that even in case the government paid the unemployed wages to dig holes in the morning only to fill them up in the evening, it was adequate to restart a revival. The quality of work did not matter and even if it were completely non-productive work, it would help to create demand. In a lighter manner, it may be said that even 'black money' or 'terrorist money', though ethically and politically incorrect, would make economic sense since it forges strong employment links as physical value is being created along the way. Probably that is how some of the so called 'rouge states' manage economic survival despite there being little productive activity in their economies.

Workers with money would like to spend it, which would create demand for consumer goods. This will lead to a greater demand for labor which in turn would mean more wage payments and hence, consumption. As this demand, rose supplies would increase and as production reached optimal capacity utilization, there would be demand for fresh capital investment. The impact would hence be through the 'multiplier' concept whereby growth would be at a fixed times the investment. This in turn would create another round of growth, which would propel the economy further through the 'accelerator' whereby accelerated growth will necessitate a fresh round of investment. Thus the 'multiplier' and the 'accelerator' would ensure continued growth in the economy and bring it back on track.

It must be remembered that the accelerator principle by itself is not a part of the Keynesian model. But Keynesian economists of the generation after Keynes, especially Paul Samuelson, put the accelerator and the multiplier together. Because production is increasing, businessmen have to invest more to keep up with their orders. But this greater investment also has a multiplier effect, so it causes production to increase further, which requires a still higher rate of investment and which brings about still more increase in production via its multiplier effect and so on.

Ironically, even today this is a theory that is advocated when central banks consider the possibility of dropping currency from the skies! Or at a more realistic level, if the government has a dole program for the unemployed, then a similar chain is created and maintained. Maybe on deeper thought, this is one of the reasons why a downward movement in the business cycle is not that harmful for countries that have a support system for labor. It also provides a clue to the buffer provided to growth in western countries when there is a slowdown unlike in countries like India where these fallbacks do not exist. Such unemployment benefits help to generate demand for goods and services in course of time.

Of course, this mutual reinforcement of the multiplier and the accelerator cannot go on forever but it could explain why booms can go

on for several years at a time. It can also explain why a 'bust' comes when production levels off. With production being steady, businessmen don't need to invest much or probably need just enough to replace their production capacity as it wears out. This really implies that investment could drop almost to zero, even though production is stable at a reasonably high level. By this reasoning, economists like Samuelson felt that economic fluctuations could be quite predictable and cyclical. This is also where the term 'business cycles' comes from. On deeper thought one can visualize the quandary companies face when taking investment decisions. You need to get the demand projections as well as the supplies coming in from other competitors, right. Otherwise, the actual supply of goods would be miscalculated or one can end up having large capacities created and lying idle, thus putting pressure on the profit and loss account as the loans taken for financing this capacity need to be financed continuously.

In theoretical parlance, the entire Keynesian system may be summarized by the following equation: Y = C + I + G + (X - M), where Y is the Gross Domestic Product (GDP); C, consumption; I, investment; G, government expenditure; and (X - M) the trade balance. The total income of any country would be the sum total of consumption, investment, government expenditure and net exports. Intuitively, any of these components would be used to increase income. The government's push of paying workers money to dig up holes to fill them up in the first round will increase consumption; in the second round, which will necessitate investment, it will increase income through the 'multiplier' which again will reinforce investment as consumption increases through the 'accelerator'. The impact of net imports would vary depending on the extent of openness of the particular country.

This is not really some fanciful theoretical talk because if you look at the government's fiscal policy, it is based on the Keynesian tenet of spending to achieve growth. Large fiscal deficits are based on the premise that this is the best way to push forth growth and the terms used today are 'pump priming' or 'demand led' discretionary policies. Here, the focus is more on increasing expenditure to stimulate the economy. While direct expenditure is the most obvious way out as given by the described equation, there could be other methods used to stimulate the economy through policy moves, which will be discussed later. These policies work when there are recessionary situations and several governments used this dictum for nearly three to four decades.

What about inflation or price rise? Did it or could it exist under these conditions? The issue of inflation did not really arise, as in an excess supply situation, prices would tend to fall rather than rise. However,

using the Keynesian analysis, the Philips curve (named after another economist) was used to explain inflation and a negative trade-off was drawn between unemployment and inflation. Higher unemployment was consistent with lower inflation and vice versa. The rationale was straightforward. When unemployment was reduced or rather more people were employed, there would be a tendency for spending to increase, which would lead to higher inflation after full or optimum capacity utilization was reached with excess demand building up. And conversely, as unemployment rose, there would be less spending power in the hands of the people and hence less excess demand forces, which in turn would curb inflation.

This is exactly what we talk about today when we are referring to either monetary or fiscal policy where an inverse relation exists between these two variables. When the Federal Reserve faces an inflationary situation, or rather when it expects an inflationary situation, the premise is that capacity utilization has peaked and that the economy is overheating which calls for monetary intervention. Overheating really means that income is rising or employment is increasing to the point that there is full employment. When people have more money they tend to spend more and this in turn pushes up prices due to excess demand forces. In a full employment situation where both capital and labor are fully utilized one cannot push up output under such circumstances. There would be a time lag before production can rise but prices would rise in the interim period.

It must be reiterated that in economics however, the term 'employment' is nebulous as it is not defined in a homogenous manner across countries and theorists played safe by talking of something called voluntary and involuntary unemployment. In general, with a given wage structure, all those who are willing to work find employment which leads to a full employment situation. Those who are unemployed are idle because they choose to be so. In case of involuntary unemployment you cannot get a job at any wage!

A common argument against this line of thought is that technology today can make a difference in keeping production up to match demand. But there would be limits here, too, beyond which there would be diminishing returns with fixed capital and labor.

THE FALL OF KEYNES: DISCOVERING STAGFLATION

The classical economists still held on to their belief that markets always clear and that Keynesian principles work the way described only when there is unemployment due to shortfall in demand. In fact, some of them went ahead and disparaged this brand of economics as being 'Economics

of the Depression'. The more charitable said it was a special case of classical economics under unique conditions. And economists being what they are went into lengthy arguments about the validity of Keynes under different economic conditions. To add to the confusion there were several interpretations of Keynes with each economist coming up with his or her own brand of what Keynes said and meant. The real test came at the time of the first oil price shock in the early seventies. This was a period when the price of oil rose as OPEC decided to raise the price of crude oil, which had more than doubled. This rise in price caused inflation across the globe as most countries were net importers of crude oil.

The sharp spike in the world price of oil was followed by a period of significant economic dislocation in most industrial countries. There were dramatic slowdowns in real activity and acceleration in inflation. Although there were several other factors such as prior overheating in many economies, acceleration in prices of other commodities and a significant fall in productivity growth that certainly contributed to these developments, the large increase in the price of oil played a central role in this process.

These events led to the creation of a new concept in economics, which was hitherto never considered, called stagflation. Inflation was always looked upon as something that happened only after full employment was reached or optimal capacity was crossed. Both the classical and Keynesian models, therefore, never thought of inflation coming from any other source, which was the case this time. A central cause of stagflation was the oil shock that saw the price of oil rise steeply due to the ability of OPEC to curtail the supply of oil. The rise in the cost of oil led to an across-the-board increase in the cost of production causing not only inflation but also slimmer profits, cutbacks in investment and rising unemployment thus leading simultaneously to high levels of inflation and unemployment. This kind of a situation as mentioned earlier was never expected before and led to the emergence of new schools of thought.

Cost-push inflation was the new phenomenon that entered the growth processes of countries. As growth slowed down, unemployment rose and the remedy followed was one of increasing government expenditure, as this was what Keynes suggested. This higher expenditure had added to demand while supply was stuck since production capacity was not created by industry in particular. Therefore, the expansionary policies pursued added to the inflationary spiral without easing employment. This was the phenomenon of stagflation in which inflation and unemployment coexisted. Keynes was the problem here or rather an additional problem, and not the solution when unemployment rose. The rule of 'one-size fits all' broke down once again as Keynes's offering was downgraded to be a

special case that was suited to specific economic conditions. Critics now argued that either way the theory would fail. If governments cut back expenditure to control inflation, unemployment would rise further. If they spent more, they would only add to inflation without assuaging employment. This was the typical Catch 22 situation where fiscal policy only added to the problem instead of solving it.

MONETARISM, CLASSICAL PRINCIPLES ONCE AGAIN

This was the phase when the world economy had to grapple with change caused by an extraneous factor, which was not the case after the Second World War. Stagflation virtually made governments give up Keynes and go in for monetarism, which is associated with the economists Milton Friedman and Edmund Phelps. Monetarism was a case of going back to the classical theory according to which markets clear and governments have a small role to play. Consumption decisions were taken on the basis of permanent income and not current income. This is significant since if you ask yourself as to what is your spending pattern, you will realize that a lot many decisions are taken keeping in mind your future income streams over an expected life time. Accordingly, you save for the morrow and end up with a consumption function. This was called the permanent income hypothesis, which was one of the cornerstones of this theory. Here, money supply could only increase income in the very short run and in the long run the reformulated quantity theory held where money demand depended on a variety of factors such as permanent income, tastes, interest rates and so on.

Inflation was always considered to be a monetary phenomenon by Friedman and was hence directly or indirectly a result of monetary policy when it was liberal and had fewer goods as stocks. Excess demand chased limited supply of goods resulting in inflation. Phelps went one step ahead and showed that the Phillips Curve, which was one of the outcomes of the Keynesian theory, was actually a vertical line associated with a natural rate of unemployment.

Just think of two axes, which in our elementary school books go with the names X and Y axis – the X axis represents unemployment and Y represents inflation along with wage increases. The theory says that as unemployment falls, workers will ask for higher wages (which is a reality today) and lead to higher inflation as the higher cost is passed on to the consumers. Employers will now cut back on labor usage thus increasing unemployment and as wage costs fall prices too will come down, thus making movements in a semi-circle around a fixed point, called the natural

rate of unemployment. This rate holds for all countries at different levels and hence while policies could move one around this level, the unemployment level would gravitate towards this level. In the USA this was spoken of as being close to 4%. Practically speaking, we can historically look at this rate in a country and use an average to be this fixed point.

ENTER SUPPLY-SIDE ECONOMICS

Monetarism ruled the foundations of economic policies of several countries in the seventies and early eighties. Meanwhile, there was the strange case of an economist who, while waiting for his cup of coffee, drew a relationship between tax rates and revenue collections and showed an inverse relation between the two on the tissue paper kept on the table. The economist was Arthur Laffer and the Laffer curve came to be associated with the supply-side economics. This appeared to be a revolutionary theory, which spoke the opposite of conventional wisdom on linking tax rates with tax revenue.

Why supply-side economics? Keynes spoke of demand stimulation all along while Laffer actually focused on the supply side. The government could influence overall supply of labor and capital by introducing the right set of incentives. For ages it was believed that if the government wanted to raise revenue, it had to increase tax rates, which on hindsight appears logical. So much so that some countries actually had a marginal tax rate of close to 100%, meaning thereby that after a certain slab of taxable income you paid almost the entire amount you earned as tax to the government. Who would ever want to do it? The result was a low level of compliance as people preferred not to pay tax, also called tax evasion. Or better still, there was less incentive to work since at the margin there were very low net returns for the worker. Intuitively, it may be seen that when people work less and firms produce less the overall growth in income for the country takes a back seat. In fact, more than an individual it was the firms which had little incentive to produce more as profits were going to be taxed at high rates.

Laffer simply said that if governments lowered tax rates, tax revenue would actually increase and hence, logically governments should keep lowering their tax rates to keep the collections increasing. The rationale was that lower tax rates would be an incentive for people to work more (and also comply with the tax rates) thus leading to more growth in income and taxable income, in turn leading to higher tax revenue. This becomes a win-win situation for all participants. If this sounds esoteric, it can be simplified with examples. Suppose the maximum marginal tax rate was

say 60%, you would not find it profitable to work that much more and would settle at a lower income slab. Companies may not think of reinvestment in case the corporate tax rate is very high. If these rates were lowered, you would feel inclined to work more—maybe take up an additional assignment or work overtime—since you would be able to take home a higher net pay.

If corporate tax rates are lowered and linked to investment, as was the case with 'investment allowance' in our own context, companies would like to earn more profits and divert large portions to investment allowances which can be used for making more goods in the future. If duties or indirect taxes are lowered, the prices of goods fall and people tend to consume more. Just think of the price of detergent powder falling due to lower excise duties. The consumer would be more liberal with the detergent being added to the bucket of water as compared to the time when the rates were higher. The government would gain both ways with higher revenue as the higher income generated from the same base of tax assesses would increase at a faster rate than the decrease in tax rates thus enhancing the growth in tax revenue.

This brand of economics focused on fiscal incentives for increasing supply and was used in both the USA and UK. The US brand was called 'Reganomics' where such measures were combined with expenditure cuts to improve the budget balances. In the eighties, India, too, experimented with it and met with some success as the marginal tax rates were lowered substantially leading to higher tax collections. In fact, even the Vijay Kelkar Report on taxation talks of having simplified tax structures in which tax rates are low and exemptions kept at a minimal level.

ECONOMICS BECOMES RATIONAL

Interspersed with monetarism and supply-side economics, economic theory went back to the principles of micro economics in which the assumption of economic agents being rational was readdressed. The problem with economics is that one of the basic assumptions is that all economic agents are rational. That is to say that we all do things based on reason and that we follow logical reasoning most of the time. This means that when prices go up we would tend to demand less of the product, but definitely not more of it. This is a very strong assumption but nonetheless is interesting as there are some equally strong conclusions that can be drawn based on this assumption. The thought here is that if you have some useful information you will use it and not just ignore it, even if you end up not following that information. This sounds more reasonable now.

Suppose all economic agents were rational and took into account all information that is available when taking economic decisions; the equilibrium that will be reached should then be an optimal one. If this were so, at the macro level such a situation should also then result in the classic state of full employment. To put this in an easier perspective, we can all take sound economic decisions if we know the prevailing tax rates and government expenditure (fiscal policy), interest rates (monetary policy), exchange rates (balance of payments), flow of supplies information (agricultural and industrial production). Individuals will decide on how much to work, consumption levels, savings requirements, etc., as they would know what is likely to happen under these circumstances. Companies will decide on where to invest and what to produce, how much to borrow, how to deploy their profits and where to locate as all this information that has to be known is available to one and all. These thoughts were put together and espoused by economists who went under the banner of Rational Expectations School, also called the New Classical Economics. Some of the names associated with this train of thought are John Muth, Neil Wallace, Robert Lucas and Thomas Sarjent.

The Rational Expectations School actually goes back to the principles of perfect competition where there is no information asymmetry and all economic agents are rational. If everyone had access to the same information and took judicious decisions (for example low interest rates means that we borrow more), then the final result would be exactly as it should be and was expected to be at the time of taking a decision. More importantly, this would be an optimal decision. Assume that interest rates are cut by the monetary authority only once in a year. All borrowers will adjust their decisions to invest based on the structure of rates to be pursued by banks and all banks would plan their budgets based on this structure of rates. Their decisions to lend or invest in government securities will be contingent on the central bank's decision on interest rates, which is known before hand. In fact, if we look at tax rates, all of us as individuals plan our savings and consumption based on the tax structure, which is announced once a year. In this scenario, the government has no role to play in guiding economic activity as every participant will work on the premise that the information received is valuable and will use it in a judicious manner.

These models were constructed in a mathematical form and then used to show how non-intervention works while intervention of any form would actually be futile. This was also probably the first time that modeling was used exclusively for this purpose. The Rational Expectations economists went a step further and said that the only way in which the government could have an impact on economic activity is in case it systematically

'fooled the public'. How could this happen? Suppose the RBI announces four monetary policies at fixed time intervals and the public knows these. If all policy actions are taken only during these times, then all participants will know for certain that all the monetary variables will remain stable in the interim period. In such a case, the RBI policy will have no effect on the economic outcomes. However, if the RBI starts making policy announcements in between then it disturbs the equilibrium, which in turn makes its policy effective. In short, the RBI is actually bluffing the public by saying that it will not intervene during the interim period between two policy announcements and then interfering in between. To carry forward the earlier example, if the interest rates are lowered by the central bank to spur growth but the RBI now believes that inflation is a concern then it could reverse its decision and increase interest rates. But, this move while controlling inflation will throw the market out of gear. All borrowers will have a problem analogous to that in the sub-prime lending case in the USA if interest rates are suddenly raised, as it will cause them pain with longer repayment schedules. But then, this provides scope for policies to be effective as they become relevant in combating inflation.

Intuitively, it may be seen that such policies are quite a contrast to those put forth by Keynes. He believed in discretionary policy while the rational expectations proponents as well as the monetarists would prefer a 'rules' based policy whereby the rules of the game are set and the market takes care of the rest. But on deeper thought, since the world is very dynamic and everything is dependent on everything else, one can never really have a rules policy forever, as a rule is framed based on certain assumptions that are liable to change during the course of a time period when intervention is needed.

Still, all this theory is not just esoteric debates but also has considerable relevance in our real life. The fact that we have standardized monetary policies, budgets, EXIM (export–import) policy, industrial policy, FDI policies and so on indicates that governments are progressively moving over to the level where all information is made available to the players and intervention is minimal in the interim period. In fact, governments all over the world are moving towards partly announcing such policies in advance so as to reduce uncertainty in the markets. But rarely do we have governments which are relying entirely on the markets to take the economy forward as in a dynamic world where conditions keep changing there is need to hold discretionary power to alter policy stances depending on changing priorities and also guiding the economy in a certain desired direction.

NOW WHAT?

This refresher in macro economic theory is important as it really tells us what governments do at different times. Today, no government is really monetarist or Keynesian or adherent of rational expectations. They use a combination of these theories depending on the situations. Different policies call for different solutions and there is no single solution to all the problems. Further, the assumption of perfect competition, which has as its centerpiece perfect information is a theoretical concept. No market is perfect and there is a tendency for some kind of an economic alliance between producers, which a legislation against restrictive practices seeks to control. Further, information is never available to all segments of the markets on an equitable basis. Knowledge is always imperfect and economies try to move towards perfection. Therefore, there is reason for one to believe that interventions are needed *a la* Keynes. Governments play a decisive role in every aspect of our lives, which goes beyond just taxes. Also since private initiative works on the motivation of profit incentive, government action is required in several lines of activities.

More importantly, governments may not like to adhere to one line of economic thought. While the principles of rational expectations say 'do nothing' as policy is ineffective, it may be prudent to do something that is ineffective rather than do nothing and be caught on the wrong foot. Maybe that is why fiscal and monetary policies are still the critical elements of any country that guides all economic activities. True, there are times when the government may raise interest rates but still encounter higher growth in money supply when the economy is on an upswing, but then that is better than doing nothing and allowing money supply to grow without any check. So, even the rational cynic must admit that it is better to do something than do nothing.

Economics is not just about theory but is important because it explains a lot about what is happening all around. Theory gives clues as to why policies are being implemented and to what end. They do not guarantee results and are based on several assumptions and hence go under the banner: 'if, then...'. Now, if the 'if' conditions are violated, the 'then' may not happen and will require another approach. There is also the view that we need to use as many instruments as the number of goals because this is the only way in which policies can be made effective. At any point of time there are a number of such policies in action, borrowing pieces from each of these theories depending on the circumstances.

The purpose here is to demystify some of these situations in the real world situation to actually make sense of economic theory. In the process one can also figure out the 'why' behind economic policies.



Econometrics: Your Actions, in Numbers Now

"Human decisions affecting the future, whether personal or political or economic, cannot depend on strict mathematical expectation, since the basis for making such calculations does not exist".

John Maynard Keynes

To begin with, economic theory was largely theoretical where words explained human actions. Graphs were used to provide a visual exposition and invariably a two-axes framework was used and relations examined. Both micro and macro theories had these graphs with several lines showing how economics worked. But, by the time the Rational Expectations School really caught on, things changed quite dramatically.

An attempt to move gradually towards more concrete relationships between different economic variables resulted in economic theory being presented in numbers. This field of mathematical economics with the help of advanced statistics that went beyond the commonplace mean, median and mode concepts got translated into econometrics in which different relations are being explored and expressed with what would be a horrendous set of equations. When one thinks of myriads of people being involved in the determination of a variable such as the price of a commodity, it is fascinating to be told that there is actually some method to this madness, which can be quantified in numbers. These numbers actually establish the precise relationship between these factors. Better still one can conjecture on the future based on these neatly laid down equations. In fact, several treasuries of banks and investment banks are already using these models to take investment decisions. Hence, these esoteric models are actually being used to make money.

The subject of econometrics has been furiously debated and has finally been accepted as part of the subject. It has also been extended to human

behavior and has hence transcended the frontiers of economics. Whether or not one is convinced about using these tools, it is still essential to grasp what it is all about because without this knowledge, around 80% of the research that is done in the field of economics becomes gibberish. While the reader may not need to go into the details, some jargon is inescapable because with its help, most of the conclusions of these research collections can be understood and relations interpreted.

This major innovation in the field of economics focuses on quantification of economic variables. Mathematics and statistics have been progressively used to explain economic phenomena. Basically, principles of economics are used to explain movements in say, GDP by factors such as money supply, agricultural growth, exports and so on. These neat tables of numbers are made to match one another through a series of complicated tests, which validate or reject the initial hypothesis. However, fitting numbers into theory runs the following risks, as those antagonistic towards this science tend to ridicule the approach. We all know that the population grows every year. We also know that the GDP of a country grows every year. Therefore, if we put these two series of data for say, 50 years of GDP and population growth, we may get the bizarre result which says that the two have a strong relationship: when population grows, so will GDP. As a corollary, to increase GDP we need to have more people. The same holds when we use variables such as the number of trees in the country or the number of deaths that take place on account of say, riots!

However, this is putting it quite facetiously. There is a rejoinder to such statements—the subject clearly says that for an econometric relationship to be built there needs to be an underlying economic theory or else we will end up with absurd relationships such as the growth of terrorism, which is on the rise today, and growth in GDP.

THE RUDIMENTS

This subject essentially starts with the premise that there is a hypothesis that needs to be tested which says that money supply causes inflation *a la* Classical School. You begin by looking at data for both these variables for a long period of time—the longer the better. At times, the econometricians say that we need to have a minimum of 30 observations for a meaningful analysis. Suppose we want to know what factors affect inflation. Money supply is the first term that comes to mind, or cost factors such as oil prices or crop failures. But then, inflation could be caused by other variables too which have to be factored in. If we know what these factors

are, we can include them also in this mass of data. Alternatively, we need to have what is called an 'intercept term' which is meant for the miscellaneous factors that capture the other variables.

You can think of a two-axis graph where the line starts from some point on the Y axis. This length of the Y axis is what is attributable to the other variables. Selecting time periods is tricky because conditions that existed 50 years ago are quite different from those today. Therefore, greater importance needs to be given to the contemporary data as against the earlier one. Also, one needs to buffer for the changing environment, which is simply represented by 'dummy variables' where a number 1 is assigned to a time point when something held and a 0 to the time point when it did not. For say, a crop failure, we can assign a dummy variable. Hence, the post-collapse period of communism would be treated as 1 and the pre-collapse period with 0 when we are looking at say, the factors affecting GDP growth in Russia. The same can hold for say, the period symbolizing the arrival of the euro or even the booming technology revolution. In the example of inflation being made dependent on money supply, a demarcating period could be the introduction of economic reforms in the country in 1992.

The models are run, and there are different forms depending on the level of complexity the user would like to use. These could be linear or non-linear. Basically, all the scattered points are put on a graph. In this case, if we have money supply on the X axis and inflation on the Y axis, then all observations are put across in a scatter diagram. The model or equation tries to fit a straight line (most of the time) through this mass. So, what we end up saying is that on an average there is a mathematical relationship between the two variables and it is possible to conclude that most of the time x% increase in money supply causes y% increase in inflation. The subject specifies the confidence levels, thereby meaning that we can say with 95% confidence that this relation will hold. There are tests carried out to check the goodness of fit and if they are satisfactory, then things are okay.

The most critical test is the coefficient of determination, which goes as r-square. It indicates what part of the variation in the dependent variable, i.e., inflation is explained by the independent variable, i.e., money supply and the other variables. Intuitively, it can be seen that the higher this number the better is the relationship. The other test that needs to be looked at to understand the strength of the relationship is the t-test. Each of the independent or explanatory variables can be viewed in terms of whether it has an impact on the dependent variable based on this test, which indicates the significance of this variable. When one chances to look at these equations in research studies, they are denoted in brackets

alongside or below the coefficient. Again a thumb rule is that if the t-ratio is above 2, then the coefficient is significant.

A lot of jargon also goes into defining these tests such as tests for multicollinearity (simply meaning whether the explanatory variables are linearly related, i.e., if money supply and GDP are to explain inflation then GDP and money supply must not be linearly related), Durban Watson test for autocorrelation (to check if the random elements affecting inflation yesterday also affect the random elements affecting inflation today) and homoscadasticity (repeated sampling has the same variance, i.e., different samples should have the same variance also called the square of the simple standard deviation). So far so good, as one can find nothing controversial here since we are basically trying to fit in some order in these developments that have taken place. At a more advanced stage, there are tests, which give one the chance to comment on the causal nature of the relationship. So far we are only saying that one variable is determining the other—but the causation is not known. The r-square only gives the extent to which variation in one variable is explained by variations in the other. It tells us nothing about causation.

Therefore, if we regress inflation on money supply and money supply on inflation, we will get similar answers. But, then what causes what? While normally we talk of higher inflation being caused by money supply, we have also seen that the RBI or the Fed adjusts money supply when inflation moves up. In this case, there is a two-way relationship between the two variables. To know what causes the other, there are certain tests of co-integration or to throw in some more jargon, a Granger Causality test, which can explain the same. Very often, these tests are inconclusive. In fact, often the conclusion changes depending on the time period chosen! Hence, these models are getting more refined with new tests being invented to address all these issues. So, a model could have several equations with several assumptions and could really tell us how the past had behaved in a systematic manner that could be quantified. This was surely a major improvement over economic theory, which was based on impressionistic views on rational human behavior. While theory did talk of the interdependence of various variables such as the one discussed on money supply and inflation, it was not possible until the advent of the science of econometrics to actually atomize the effects and reach firm conclusions. Likewise, we all know that money supply causes inflation, but the time lag needed can be extrapolated from past behavior by separating other influences, which can be done only through some intensive modeling.

While econometrics has caught on to the point of being absolutely necessary to prove to others that you know what you are saying, there has been the loose tendency to regress everything on everything else, which tries to oversimplify the world around us. This needs to be avoided and discretion must be exercised, as these tests should primarily be used to test relationships rather than create relationships. More importantly, it must be remembered that the subject of economics is too subtle to be defined by a single narrative or set of equations and too complex for models to be more than just illustrative.

ENTERING A DANGEROUS TERRITORY

"Only a fool would forecast exchange rates, though apparently there are quite a few who are happy to be given that description".

Mervyn King, Governor, Bank of England

As modeling got bolder, these equations were used to look into the future, too. After all, if the model explained well the relationship between money supply and inflation for the last 50 years, then it has to hold in the future too, provided conditions did not change fundamentally. It was also assumed that on an average, overall economic conditions would not really change and if there were some disturbances, they could be factored in. Forecasts for GDP, inflation, exchange rates, interest rates, equity prices and so on, all came into the frame now and more importantly, they worked. But, this is where the concept of modeling becomes more complicated and controversial and hence merits discussion.

How can we be sure that the conditions that prevailed yesterday will prevail tomorrow? There could be a war or a monsoon failure, or a change in government policy. Econometrics is able to address some of these issues by use of dummy variables, which can explain past events that can be put into the new models. However, since one never knows whether this event will happen or not, a smart way out is to build scenarios. Hence, there could be a scenario of a drought situation and one without, when we are talking of GDP growth. The same can be extended to higher taxes being imposed, a crude oil crisis and maybe even the failure of the WTO. These occurrences are encapsulated in the error term, which is the unexpected. The premise here is that if the relationship is strong otherwise, the error component should not be significant in the ultimate analysis.

Nevertheless, are we really talking of a situation where we know all that is going to happen or is it that randomness evens out over time. This is critical because if one observed the data of forecasts put out by different

agencies, there are different numbers to be had. The IMF, World Bank, ADB, RBI, Ministry of Finance, CRISIL, CMIE (Centre for Monitoring Indian Economy), etc., have different projections for GDP growth. All of them use multi-equation multi-variable models with intense complexity and go on to project all possible variables: inflation, current account deficit, fiscal deficit, money supply, interest rates, exchange rate, forex reserves, etc. Add to this forecasts made by investment banks and other commercial banks that are always gung-ho about India. You can have forecasts ranging from 7% to 10% for GDP growth. What gets even more curious is that the investment banks and brokerage firms boldly make these forecasts for the next 5 years down the line, which is ridiculous. Obviously, all cannot always be right; while some would be closer to the final figure, others would be seriously away from it. This has led to a lot of confusion in the minds of the public as to who is to be believed.

In fact, there is a curious trend in all these forecasts. The international agencies would be more conservative about India's growth prospects. Investment banks would always say that India is a great country because they need to show that money invested by foreign funds would multiply. Government estimates are somewhere in between and probably the most credible, while independent agencies prefer to sound different and invariably have numbers that have some 'shock value'.

To top it all, constant revisions are being made by these agencies during the year, which supposedly factor in some of the changes that have taken place during the period. These forecasts are very different from what were earlier predicted. Even the IMF, which is by far a neutral institution and which has no vested interest in the prosperity of a country, goes wrong almost every time because even a 0.1% difference in projection of the US economy which is of a size of \$ 13 tn means going wrong by \$13 bn, which is a lot of money. Similarly, a difference of 0.5% in growth in the Indian economy which is presently sized in real terms at around Rs. 800 bn means a difference of \$ 4 bn in an increase of around \$70–80 bn which is quite substantial.

It has, therefore, been argued that while econometric modeling is a useful tool to explain past behavior, it must be used cautiously to predict the future. For example, models have shown that in USA the qualification of teachers does not have a bearing on the performance of students in the schools. This sounds fair enough as we are looking at past patterns and assigning a relationship without talking about the causal relationship. Some models go steps ahead to make predictions, which though interesting may be hard to digest. For example, some models have statistically projected the results of one-day cricket matches, which have turned out to be right on many occasions, but it is hard to be confident

about these projections. Also, it has been found that in the USA models gave better results of the judgments of the Supreme Court compared to those projected by judicial experts. Here, for the year 2002 a model was used to project what the Supreme Court ruling would be for several cases that came up. The same was passed on to experts who were to give their version of the Supreme Court verdicts. The models had apparently been right more than 80% of the time, while the experts' verdicts were closer to 55–60%.

These examples are however more academic in nature and may not really matter. However, when they are used in modern finance where complicated models are drawn to predict stock prices and interest rates, then they mean serious business. Similar risk models had made suggestions in the now infamous LTCM episode (which involved a Nobel Prize winner), which added to the rot started by the Asian crisis in 1997–98. Even in the more recent sub-prime crisis, some models had predicted that such a situation could arise once in 60–99 years—but it happened almost immediately! Forex dealers, money market and bond dealers, stock market operators, etc., are constantly using models to forecast all kinds of price movements on a day-to-day basis, with fundamental analysis being superseded by technical analysis where patterns are drawn up to measure changing trends.

SHOULD WE THEN DUMP THESE MODELS?

Econometric modeling is all about making sense out of past behavior and actions. This way it is fairly competent and has immense academic value. But, to assume that the past is a good indicator of the future is a bit bold, though very often one may get the right answer as the models talk of an error term for the variable being studied, e.g., there is an error of the estimate which will talk of the range between which the estimated variable will lie. Further, it must be realized that as models get complex, the independent variables, which explain the determination of the dependent variable, could be based on independent calculations. Thus, for example, money supply growth could be made a function of say, government deficits and inflation be made a function of money supply. If the money supply estimate goes awry because a war is fought which was not planned, then the estimate of inflation would also go for a spin.

Such tools are nonetheless essential as they give some scientific basis for making conjectures. It certainly sounds more credible when we have an estimate of GDP growth based on a model rather than an off-the-cuff remark made by an economist or a central banker. Central banks

invariably do target variables where they mention that they would expect a growth of x% in GDP, which would require deposits, credit and money supply to grow by certain amounts. These are desirable numbers and may not always turn out the way it is hoped. In India, for example, the RBI targets all these monetary variables, which are consistent with growth and inflation numbers, but rarely are these numbers realized as per the targets. The growth in money supply, deposits and credit has been targeted normally at 15% and 18%, but the final figures turn out to be different. They indicate the RBI's preference for growth rates, which would be consistent with the policy approach and sounds more plausible.

What seems to be more important now is that one should not get overwhelmed by the statistical models and should use their conclusions when it comes for forecasting with a good deal of caution. But they definitely do provide insights about the past, which are useful for policy formulation. A good example relates to monetary effects on inflation. Based on a country's data and after separating other influences, models shows that the impact of money supply on inflation becomes visible after a lag of 2–3 quarters. If this were so, then the monetary authority would necessarily take a long-term view when it invokes monetary policy, as it knows that what it does today would make an impact after a fixed period of time. Maybe that is why it is said that monetary policy is always forward looking.

The message here is not to become a slave to these models but to use them to systematically understand the past. Utilize these models to predict the future so that some benchmarks can be set, but do not hold them to be sacrosanct and treat these results as an additional rather than sole input. More importantly, if you are putting your money on it, then be prepared to go wrong.



Gross Domestic Product: Basis of Growth

"Most economic fallacies derive from the tendency to assume that there is a fixed pie that one party can gain only at the expense of another".

Milton Friedman

When one talks of growth, the reference is to the Gross Domestic Product or the GDP. It is the sum of all output produced within the country and includes all goods and services. This concept is preferred over the Gross National Product, which is called the GNP. The GDP comprises all output or income generated within the frontiers of the country irrespective of the background of the person who contributes this product and hence, also takes into account the contribution of non-Indians in the country. The GNP nets out the same for domestic and international factor income. The concept used globally for comparison purposes is GDP and whenever one talks of growth, it is GDP and not GNP. This is so because on account of globalization there has been a tendency for a lot of activity from foreigners, which adds to the development process and hence cannot be excluded.

The Keynesian equation of C+I+G+X-M comes closest to the quickest definition of GDP. All governments want to increase this GDP level and the rate at which this increases is called economic growth. So, when we talk of a growth rate of 10% or 8% per annum, we are actually talking of this particular variable and its expansion.

INTERPRETING THE NUMBERS

There are different ways of looking at this number. I can value the goods and services at prices that are prevalent today. This will be higher than the number arrived at in case the goods are valued at a price fixed in a

normal year which could be some five to ten years back. The difference is that prices keep rising every year. So, when prices rise, as is the case in times of inflation, the value of GDP will tend to rise automatically as the same quantity of goods produced will be available at a higher price. Therefore, while production remains unchanged in physical terms, the value goes up due to inflation, thus exaggerating the picture. If one went by this criterion, then higher inflation would always be good for a staggering economy, which is not the case. The Latin American countries in the eighties and nineties or in recent times Zimbabwe, have had high inflation rates which can make their GDP growth in nominal terms look stupendous even as the citizens suffer in poverty.

Therefore, a distinction is made between GDP in nominal and real terms. Nominal refers to the prices prevailing in the current year while real would be the valuation of the same quantity of goods at prices prevailing in a normal year. The normal year has to be carefully chosen to ensure that there were no abnormalities in the form of a recession, inflation, war or natural calamity and so on. This normal year then becomes a base year that serves as the foundation for the build-up of this series.

But, how long can one rely on this specific base year? The problem here is that the set of goods that one chooses in the normal year would be different from those which exist today, which is an issue since normally the base year changes once in a decade or so. If there were a radical change in the commodity composition, then a significant part of the output would get left out, as there would be no comparable price for the base year. This has been the problem for the so-called sunrise industries. They came up in the eighties while we still had a base year of 1980-81. When the base was advanced to 1993-94, it was subsequently found that the electronics sector got a bad deal. Telecom was in a rudimentary stage at that time and the proliferation of handsets today would not find a place in this set of goods taken as a base in 1993–94. Therefore, there is a need to change this base at regular intervals in order to capture these changes that are taking place. While there can be no firm tenure for a base year, a rule of the thumb could be at least once in 10 years or whenever deemed necessary.

Another variation of this national output is the tax element where GDP is reckoned at market prices, which include net indirect taxes on goods and services. This goes ahead of the GDP at current prices, as the taxes are also included. Therefore, in terms of hierarchy, GDP at current market prices would have the highest value followed by nominal income or current income and then real income. Real income comes close to giving a single number for the aggregate physical quantity of goods produced in the country, which can be taken forward to capture the growth in this

basket. GDP at market prices is what we are actually paying in the market. Taxes are a transfer payment from individuals to the government and are in a sense not a value addition. Therefore, normally it is real GDP, which is considered and not the other two, though certain other variables such as fiscal deficit or current account deficit are expressed as a percentage of GDP at market prices. If this were not done, then the deficit would also have to be reconverted to base year prices and this would make the exercise complicated.

When comparisons are made across countries, there tend to be questions raised on methodology notwithstanding the base year and parity issues that exist anyway. Every country has its own methodology for calculating its GDP. In countries like India where the data collection system is still not developed, the existence of an informal sector creates problems where there is no recording of the output or income generated from this sector. This is particularly stark when we look at certain services that are rendered in India by the housewife or performed by paid maids in developed countries. Further, the payments received by domestic help may be much lower than that in other countries and gets a lower valuation. On the other hand, there may be imputations for certain services, which may overstate the value of outputs, as precise data may not be available. An example here is the case of small retail kiosks or outlets that may barely have a roof. There is no count of this component, which means that there are imputations made on their number as well as income generated from each of these units. This may have overstated the case of the services sector in our country as it was founded on imputations based on a sample survey.

A study carried out at MIT showed that a typical village in India has a large service class. Most of them own stores that may not be more than even 50 square feet, often including their residences. The goods for sale would include 2 jars of chickpeas, 20 bars of soaps, 3 packets of cigarettes and half a dozen sachets of shampoo. Is this retail class comparable with the Sears and Wal-Marts of the USA? Both of them, mind you, get included in the services sector of the economy and hence the retail drive means different things in the two countries.

This is significant in the Indian situation where 40–50% of our service sector lies in the informal sector – transport, retail trade, informal finance, real estate and so on. Even in the manufacturing sector the output number may have this random element, which makes comparison a difficult job. There are serious cases of underreporting to avoid paying taxes by enterprises, which complicates things. Intuitively, one can see that countries that have a higher proportion of unaccounted money would tend to have a larger number of imputations for the GDP and hence one

must make allowances for such discrepancy. The size of the black economy in India is considered to be very large and could go up to 40–50% of the size of the accounted GDP.

What is clear now is that any reference to GDP growth refers to growth in real terms or constant prices, where the base year differs from country to country.

DEFINING ACROSS COUNTRIES

The other curious factor to keep a track of is the fact that the level of growth rates would be different for developed and developing economies. Developed countries are those like the USA, Western Europe, Canada and Japan. The developing ones range from China and India to Singapore, Hong Kong, Brazil and Argentina. Here, the base of GDP used for comparison matters.

Now, when USA registers a GDP growth rate of 4% per annum, its monetary authority called the Federal Reserve would be agitated, as this would mean possible Keynesian inflation, which accompanies high economic growth. However, the Finance Ministry and RBI in India would be worried if our growth rate were 4% as this means too much unemployment. These numbers need to be interpreted with caution. Statistics plays a big role here. An economy with a size of say \$ 12 or \$ 13 trillion is different from one that is \$ 700 bn. On a lower base, high growth is possible, but with a high base, even a low growth rate means that something nice is happening. China is always the exception where the base is large as is the growth rate.

Given these differences in definitions and concepts and natural statistical advantages that some countries have, there have been efforts at normalizing GDP numbers. How do we ensure that all the numbers are of the same level? The answer is straightforward. The question asked is, what are the comparable goods that are produced in different countries. They need to be priced the same since local inflation, exchange rates, transport costs and so on create distortions. We value all the goods at the same prices. This is called the Purchasing Power Parity (PPP) theory, which converts all goods and services into dollars so that the real GDP picture is gauged. Automatically the value of goods increases in the developing countries in particular, and the country ranking also changes radically. Instead of USA, Japan, Germany, France and so on, we have USA, China, Japan, India, Brazil and Russia who become the leaders. In fact, there is a Goldman Sachs report that talks of how Brazil, Russia, India and China would be leading the charge in the 21st century.

The Economist magazine has come up with a very novel concept of Burgernomics where the PPP is based on the price of a standard burger. The burger should cost the same in all countries and the difference in prices is the exchange rate. Hence, if the McDonald burger costs \$1 in the US and say, Rs. 50 in India, the exchange rate should be Rs. 50. Though quite facetious, it is a very simple and innovative way of grasping the PPP theory.

Given that there are various concepts of GDP that involve several assumptions, how exactly is it calculated at the ground level? The CSO (Central Statistical Organization), which is the organization in India that collects this data, divides the country into various sectors and gets the GDP from each of them; these are then added. Again, here the GDP is always the value added in any sector. Value added is, roughly speaking, the returns to the factors of production, i.e., land, labor, capital and enterprise. A profit and loss account of a company would define it as the sum of gross profits and salaries and wages as this denotes the return to these factors of production. Value added is more important than the value of output since various inputs are being used which are the outputs of other sectors. For example, sugarcane is an agricultural product used to produce sugar, a manufactured product. The value of sugar cannot be considered here, as part of the value is the cane that has gone into its production. Therefore, the concept of value added takes into account only the activity that is created in the sector.

There are lags in the receipt of data on actual production, which opens the door for error to creep in. Some agricultural crops are harvested in April and are considered part of the previous financial year, which ends in March. Therefore, an advanced estimate would be based on what is hoped to be produced in April and may turn out to be quite different. The same holds for other sectors, too, where the initial conjectures finally turn out to be different. This leads to several rounds of revisions—at times even after a year—which could be substantially different. There is evidently need to strengthen the system of data collection and flow, which agreeably is a challenge given the predominance of the unorganized segment.

Broadly speaking, the economy is divided into three parts—agriculture, industry and service. Each of these sectors has other sub-sectors. Growth in GDP is hence the growth in value added in all these sectors taken together and these sectors have their own GDPs. Intuitively, one can calculate the growth in GDP if you know the share of each of these sectors in GDP and the expected growth in each of these sectors.

SOME PUZZLES

The informal sector is dominant in agriculture and services, and partly in manufacturing. This means that there are no records of the goods produced as they do not enter the market and the producer does not file any kind of returns. The farmer does not take the goods to the market place and the small scale manufacturing unit does not record the same with the authority. Retail stores, transport companies, informal moneylenders, storage companies, etc., may under report to dodge taxes. In these cases, they report a lower level of transactions. The CSO thus makes certain assumptions and imputes a value for these products or services.

Another interesting conundrum in viewing GDP numbers is the existence of public administration. This is an important part of the calculating process and is puzzling because as the government's size becomes large the GDP numbers also increase. This component includes the entire gamut of programs that are implemented by the government, which may on the face of it look like non-constructive expenditure. Therefore, as the size of the bureaucracy grows the size of GDP will follow suit.

The other problem as mentioned earlier is with revisions. The first estimate could be different from the final estimate and vary to a considerable degree. This gives a distorted view of things as a good performance could turn out to be ordinary while an ordinary performance of 7% could finally turn out to be 8%. This is inescapable considering that there are innumerable problems in gathering data that are subject to several revisions especially on the agriculture front. The organized sector data is much easier to collect and would be subject to fewer revisions.

STORY OF ECONOMIC TRANSITION

The question now is how one views these GDP numbers. Economic history shows that to begin with countries start off as an agrarian state and then witness a revolution where agriculture becomes the driver of the economy, as it turns self-sufficient. This is a kind of a precondition for the next stage of growth. The second step is an industrial revolution where a transformation takes place not just in the structure of the output but also in employment and urbanization. The process is stable as the agrarian revolution has already been established and there is little dependence on the outside world for food. Finally, there is a transition to a service-driven economy, which actually develops as a corollary to maintain the industrial upsurge. At this stage, the more mature services

especially the financial ones like banking, insurance, capital markets take center stage, as they become the engine to growth. The industrial revolution in the mid-nineteenth century in Britain in particular, is often used to explain this process of economic transformation.

If one looks around the world today, it would appear that the division of the economy into agriculture, industry and services would tilt towards the service sector in the western developed countries while the emerging markets would be clubbed as being in the second stage of an industrial revolution coming after an agrarian revolution. This sounds reasonable when we look at say, Korea, Malaysia, South Africa, Brazil and so on. The least developed countries especially in Africa would still be struggling to get past the agrarian state.

However, if one takes a closer look at the structure of India's GDP, it looks suspiciously like one of a developed economy with close to 55–60% coming from services and the rest being divided between industry and agriculture. But, have we witnessed an industrial revolution? Are we self-sufficient in agriculture? And also, what is the quality of services when we say that we are a service-oriented economy?

Agriculture is still in a whimsical state in our country with growth being unstable and dependent on the monsoons. There never has been a revolution as such in agriculture. Yes, there was a Green Revolution in the seventies in particular when there was concerted push given to speed up agricultural production through a package of better seeds, fertilizers and irrigation to improve yields. We saw it happen in wheat in the northern states of Punjab, Haryana and partly in Uttar Pradesh. But that was it. It did not spread to other regions or other crops. India is primarily a rice-consuming nation and such improvements were not seen in this area. Therefore, the revolution was only partial and the nation moved over to industry instead without having agriculture in order.

The industrial revolution has not really been witnessed in India in the measure seen in other countries. Admittedly, Britain had the first mover advantage, which developing countries do not have. Hence, they cannot really innovate as the realm of innovation still lies with the developed countries. But the fact that the labor force remains concentrated in agriculture shows that there has not really been a radical transformation in the industrial sector. There were flashes of high growth in the eighties, which ebbed subsequently as the traces of liberalization dwindled. In the nineties, following the implantation of economic reforms, industry was able to grow at a higher rate with a much more diversified set of goods

being produced. But the recession in the late nineties blurred the picture. Growth in the last few years has been rapid and it is now felt that there could be a take-off in this sector in the next few years. To be more charitable to Indian industry and those in other similar countries, the task is that much more challenging as the other developed nations are far ahead in this field and the trade rules have been liberalized providing multitude options to other importing nations. Thus, at this stage, the developing countries are at a disadvantage as the force of competition from overseas is great which was not the case when the industrial revolution swept the western nations in the nineteenth and twentieth centuries.

The services sector is certainly booming in India its growth being in the range of 8-10% per annum, but the quality of services is different. In the USA or Europe, when we talk of a dominant service economy, it is in the organized sector. There are the large retail outlets, investment banks, capital markets, insurance companies, airlines, and so on, which add value. The growth stimulus from the retail end is tremendous since all goods produced need to be sold and when retail sales pick up, it provides the demand chain linkage to all the industries along the way right to the miner or farmer at the primary source end. In our case, it is more the smaller entities that are self-employed and running their businesses with limited capital that are adding to these numbers. These are the classic 'mom and pop stores' where hardly any innovation takes place and they have been so for generations. While this should not sound dismissive of the service sector in India, one must be cautious when viewing this segment as there are quality differences when compared across countries. At the same time, the fact that there is large populace, which generates income from this sector is commendable as it is based on the use of traditional resources which are better suited for local conditions. Hence, a retail kiosk is preferable to a supermarket, or a bullock cart to the motor or rail mode of transport. Therefore, the quality of these sectors must be also be kept in mind before concluding that India may be on par with the western economies.

While this is a reasonable cautionary note that must be exercised, the question that may be raised is whether or not in today's age it is essential to have these stages in economic transformation. Is an agrarian revolution a prerequisite to industrial growth? Probably not since the world economy is more closely integrated with free trade being propagated by most countries. One can actually go back to the principles of comparative advantage and specialize in those commodities where the country has advantages. Centuries ago, the economist David Ricardo said the same thing. This was the basis of trade where countries that were better at

producing certain goods would produce them and trade them with others which produced those goods that they did not possess in abundance. That is how trade takes place between countries. So, it is possible to say that if India has less wheat, it can import it from the USA or Australia or Canada. Therefore, there may be some lessons not just from the economics textbook but also from the experiences of other nations that went through these stages. India, for example, is a leader in ITES (Information Technology Enabled Services) and hence, it makes sense to focus more on these strengths rather than concentrate on the economic transition stages while using foreign trade to get in goods where there is an inherent disadvantage.

This is not simple. No country would like to be dependent on imports for its food security and while imports are considered the last resort to plug in a shortage, it is rarely the first choice. This becomes a political decision and few governments would find it acceptable. Therefore, while theoretically this may be acceptable in a world flattened by trade amongst other things, at the practical level it may not be desirable. Further, with global political relations not being too congenial with new political blocs emerging, no country can be dependent on a specific one for supply of food items.

Can this principle be extended to other commodities, too? Yes, as it holds even for crude oil where the dependence on other nations could go on to mould all other economic and political decisions. It may, therefore, be concluded that a historical trend may not in fact be a practical necessity. But, we nevertheless need to have a resilient agricultural sector as a cushion. Industrial growth can then follow. More importantly, one should not get carried away with the concept of India being a service-driven economy.

NORMATIVE ISSUES

"No society can surely be flourishing and happy of which the far greater part of the members are poor and miserable".

Adam Smith

Some interesting extensions of GDP growth that have been made are in the realm of happiness by which the overall quality of life is examined. Does higher income guarantee happiness? Maybe not if the overall quality of life is getting denuded. Worsening environment, higher crime rate, job insecurity, and crumbling infrastructure are some of the common grievances that we have even as our incomes rise. This has been the

bane of urbanization and migration, which are two issues on the other side of the growth process. Urbanization is associated with growth as countries industrialize and the supply of labor is met from the rural areas. This leads to the swelling of slums and the accompanying problems associated with this phenomenon. Different indices have hence been created to capture these facets of development. In India, for a while we kept talking of 'quality of life' thereby referring to the provision of basic needs such as food, shelter, education, health, and clothing to the people.

Very often, countries get carried away with the growth paradigm and grow faster than they should, thus leaving behind a trail of these disconnections. This was seen in Britain during the industrial revolution and even the East Asian nations in the eighties where growth was unplanned. While the numbers looked good, the cracks did show up soon and it took them at least a decade to restore the equilibrium.

What is definitely even more important in a country like India or any other developing economy is the distribution aspect. Higher income could mean that only the rich are getting richer. The small sized car turns to a sedan, dining out moves from a moderate restaurant to a starred hotel and so on; but the gains could be going to only a fixed set of people, which is not fair. There is hence a distribution aspect involved, which gets lost when we talk of growth. There are different numbers on the poverty ratio, which comes closest to telling us how many people live below the poverty line. The World Bank defines a poor person as one who earns less than a dollar a day. The Planning Commission goes by the calorie approach and assumes that if one can take in 2400 calories in rural areas or 2100 calories in an urban area, then one is above the poverty line. This was reckoned in 2004-05 at Rs. 356 and Rs. 538 per month, which works out to a more lowly Rs. 12 or Rs. 18 a day, which is a long distance away from the 'dollar a day' definition. On the basis of this definition, the government often reports the fall in this ratio, which is just above 20% today. More recently, a report on the Conditions of Work and Promotion of Livelihoods in the Unorganized Sector reported that 77% of the population has a per capita daily consumption of just Rs. 20. Therefore, the gentle tweaking of a number here and there can give contrasting results on the issue.

Even today, it is debatable whether higher economic growth witnessed in India has actually led to better distribution. Theoretically, the debate is centered on two approaches to better distribution. The first is the 'trickle down' approach where the focus is on improving the size of the pie, which will automatically bring about better distribution. Initially, the industrialists gain as they make profits. But to keep their profits up, they

need to employ more until the point where labor becomes scarce. This is the point when wages increase and hence the benefits percolate to all sections. The wage earners become spenders now and consume more goods which keeps the production cycle moving in one direction. However, is this happening?

This is a difficult question to answer, as there are a lot of things happening in different parts of the country, but not everywhere. There is a difference between rural and urban India and such growth processes have affected the two disparately. Some of the poor are definitely getting less poor, but the exact cross-section is hard to quantify. This is due to the existence of a large middle class, which acts as a kind of buffer for the country. The middle class symbolizes the aspirations of a country and represent to the poor that there is hope. At the same time, it reassures the rich that there will be no social rift due to the startling differences in distribution. It is a nebulously defined class that makes the exercise of identification more difficult. The widespread use of mobile phones in both urban and rural Indias is one indication of how better living has permeated to a wider cross-section of people in the country and hands out hope for the others. However, the fact that even today there are farmer suicides and starvation deaths clearly shows that growth has not been all-pervasive. This needs to change or else the quality of growth will remain lopsided.

The alternative route is to approach the issue from below, wherein the focus is on directly improving the lives of the poorer people so that they are able to grow with the system rather than wait for the benefits to come after growth takes place. While this system prima facie makes a lot of sense as it tackles the problem at the core, the implementing channels need to be efficient or else the funds that are to be used for bringing about this change get frittered away through leakages; both out of inefficiency as well as corruption. This is always the problem when the government or public money is involved. Provision of school facilities or the construction of rural infrastructure, where employment as well as a capital good is created is a great idea. But if not implemented properly, neither the employment nor the capital good is visible with the funds being siphoned off. Curiously, the story in almost all developing countries is similar, where these programs which are implemented by the government do not meet with a success rate of more the 40%, while the minimum could be even zero! Very often, a program for the poor has all the funds virtually moving towards payment of salaries to the staff, maintenance of their offices in the rural areas, establishment costs and so on, with little remaining for the program itself. It is also not uncommon to have the left-over funds being used to create a school, but not being adequate to

recruit staff or provide for other infrastructure. The crux, is hence, on efficient utilization, which never really happens. Hence, planning from below rarely meets with success.

Nations may choose either of these approaches or a blend of the two. More often than not, today the approach has to be dualistic as there is a need to maintain social balance too and people are progressively becoming impatient and cannot wait for the percolation effects to take shape.

Government charts show how the poverty levels have fallen, but the numbers look large and we still read about starvation deaths in certain parts of the country. Certainly, something is amiss in this growth pattern. This holds across the globe where the famous 80–20 principle works where 20% of the populace owns 80% of the wealth. Is this the law of the world then? And if so, what can be done to correct it?

ECONOMIC SYSTEMS

"The case for free enterprise, for competition, is that it's the only system that will keep the capitalists from having too much power. There's the old saying, 'If you want to catch a thief, set a thief to catch him.' The virtue of free enterprise capitalism is that it sets one businessman against another and it's a most effective device for control".

Milton Friedman

Intuitively, this question has been raised for centuries and economic systems have been built around to tackle the 80–20 conundrum. Broadly speaking, there are two basic types of economic systems that have evolved over time. The first is capitalism and the second, socialism. There have been several variants of the two with governments pursuing models using components of both the systems; but the main drivers have been these two systems.

Capitalism, which is the dominant model today, was based on Adam Smith's principle of free market economics. All individuals work in their own self-interest and the invisible hand ensures that the equilibrium is the optimal one. But, what when the opportunities do not exist equally for everyone? The poor in particular are born poor and do not have the same scope to move up the ladder in such a system as they are left out by definition. Capitalism can ensure growth but never distribution, as the law of Economic Darwinism has little time for sentiment or sympathy. Therefore, capitalism can work well in the USA or Western Europe with

limited intervention from outside. It works when the initial conditions of the people are similar and where the levels of inequality are low to begin with. As a corollary when the population is high, the initial level of income inequality would also tend to be high thus making pure capitalism inappropriate. In fact, more often than not, such a situation can degenerate to a dictatorship where a symbiotic relationship is nurtured between the capitalist (industry) and the rulers. The term crony capitalism strikes a cord here, as this brand of governance is visible with different intensities in almost all free-market countries.

Basically, capitalism is focused on private enterprise and the capitalist has the money, which he invests to earn more money. In this process, he has to employ all kinds of people who get paid and grow with the system. Hence, as the size of the cake enlarges, there is automatically something for everyone and the invisible hand takes care of everyone. But, as there could be lots of people who are not part of this system, they would soon realize that something is incorrect and that they are being exploited. The capitalist may choose to keep the profits with himself and keep labor just at the subsistence level to ensure that life is bearable. The profits would be churned to make more profits in order to keep the system moving. This, in very rudimentary terms, was the Marxist interpretation of the functioning of capitalism.

Socialism or Collectivism

Karl Marx, who was the proponent of socialism, which at a more serious level was called communism, felt that capitalism had certain production structures, which had a strong infrastructure comprising production relations. These production relations could be those between the laborer and the capitalist or the bourgeoisie (middle class) and the capitalist, which were historically defined and propagated. To preserve this infrastructure, i.e., production relations, a set of rules or institutions called the superstructure were created. The superstructure was basically the polity, legal system, policy framework and social system. So, we had a democratic system where the governments are financed by the capitalists and are hence protected in turn by a whole series of liberal laws and regulations, which preserve the rights to private property. The so-called middle class, a la the bourgeois acted as a buffer and kept the system from erupting. The middle class always provides hope for the poor and becomes the aspiration class for them. But, for how long could this exploitation go on. He spoke of the evolutionary phase of the system through the series of a 'thesis' and an 'anti-thesis' with 'contradictions' being a part of the deal. The 'thesis' was defined by the infrastructure and superstructure and

was contradicted by the changing production relations (which was the anti-thesis). The worsening conditions of the proletariat would lead to the contradiction as they realize that they are being exploited at the subsistence level. The proletariat, i.e., working class would soon end this exploitation through a revolution, which would lead to people's rule or the dictatorship of the people and would be the 'synthesis'. The state would also ultimately wither away in course of time. Ironically, while Marx had foreseen the inevitability of socialism in Britain, it took shape in the former USSR and spread to other countries such as China, Cuba, Korea and Vietnam.

Marxism also saw an intermediate stage of imperialism, which came after capitalism thrived domestically and reached a plateau level. To keep profits moving, they would need to move offshore and repeat the same process in the raw material-rich countries. It would start as some kind of a colonialism and then manifest itself as imperialism to the greatest extent possible. The story of the British, French or Dutch invaders and colonialism especially in Africa and Asia are manifestations of the same.

But, things did not quite work this way and communism or socialism actually led to the government holding the reins of economic power and attempting to sort out the problems of an economic system. There was no other way of getting to this utopia of the people governing themselves. So, the government had to step in to represent the people. States are rarely representative of the people and invariably degenerated to a different form of malaise where these economies became inefficient as there was no way of finding prices.

Economically speaking, this could never be a viable model. Prices are the most important mechanism for the functioning of an economy. If one cannot impute a value for a product, then the system becomes inefficient. Socialism meant providing something for everyone. Goods were produced according to the needs of the people, which were decided by the government, and while this was okay given the shortage of resources, there was no incentive to produce goods in an efficient manner. Costs often went awry as profits did not matter since the prices were fixed by diktat. Therefore, while the world moved along these countries lagged behind quite seriously and while their military strength masked this shortcoming for decades, it did finally come apart in the late eighties due to a combination of both liberal political and economic thought.

As can be seen, these two extremes can never be standalone models and there needs to be a realistic model somewhere in between. This necessarily has to take points from both the systems to ensure that contradictions are resolved. Can there be such a framework that works? The mixed economy set-up was one such alternative that could be pursued.

THE MIXED ECONOMY SET-UP

India had adopted the mixed economy set-up at the time of independence, which was to be a combination of both the systems, with the private sector looking at growth and the public sector at economic justice. The genesis was the freedom struggle during which our leaders took a very philosophic view of things and stressed the need to have an egalitarian society. Perhaps, the fact that colonialism, which we had left behind, had its roots in the East India Company, which came in for purely commercial reasons and culminated in the colonization of the country, made the capitalist approach unacceptable. This has always been at the back of our minds and the fear of the foreigner has been ingrained in our minds with a touch of xenophobia existing even today when it comes to having policies in the area of foreign direct investment or providing more space for the operation of multinationals in the country. Further, with our leaders talking of simplicity and minimal wants, it was not felt necessary to grow and prosper at a rate that was higher than necessary. Maybe that was why the country could not grow earlier and it was felt that the government was the right entity to lead the growth process in the country.

Economic doctrines, unfortunately, when taught repeatedly to the masses get embedded in our psyche and guide the future course of our actions. Therefore, it was again not surprising that the nation as a whole reveled in simple living where acquisition was fawned upon and limited ambition applauded. So, we had the creation of the public sector, which did not look at profits but at providing goods at an affordable cost and thus generated employment even in case the good was not necessary. Enterprises were set up in areas without looking at the viability since the objective was to spread to less-developed areas in order to promote regional economic development. However, no system guided by such motivations can ever be efficient in practice if run in this manner.

While keeping the Russian model in mind, the government embarked on a series of five-year plans, which were basically a rundown of the expenditure of the public sector on various projects. Rural development, health, infrastructure, education, agriculture, industry, etc., all came under the purview of the planning system. These plans had all-encompassing objectives starting from growth and distribution to inflation and balance of payments. Each plan had a time horizon of 5 years and individual targets were set for each of the years. Revenue generation for financing the plans was never a concern to begin with because the government had the power to print currency under deficit financing if the need arose. The approach, however, has changed over time.

When the second five-year plan was embarked on, the focus was on building heavy industry and, therefore, the emphasis was on growing from the top. The economist Mahalanobis laid the draft for the same, which was adopted by the Planning Commission. The focus was on capital goods and the idea was to invest in capital to make more goods. Therefore, the Planning Commission targeted large-scale industry. It was assumed that as machinery was made, it would be used to produce other kinds of goods such as intermediate, basic and consumer goods, which were finally consumed. Hence, a strong production chain would be created and buttressed. This was the system of planning from above by which the growth benefits were to trickle downwards.

However, in the seventies, the strategy was changed as it was realized that the planning from above mechanism did not work, and therefore, the targeting was done from below so that there was direct targeting of the poor in the programs. Special employment programs were drafted and implemented especially in the rural areas to provide for a minimum level of work with a fair remuneration in cash or kind. The thought was more modest and 'small became beautiful' as small-scale industry and other rural activities were the target points for policy. This was also the era during which the government sought to attack poverty and slogans such as 'garibi hatao' (get rid of poverty) dominated political speeches.

As there were traces of private entrepreneurship in the country, the private sector was also allowed to co-exist and function. The experiment was hence with a mixed economy set-up. But, to put some checks on the private sector, the government had a series of impediments such as licensing, control of growth of monopolies, taxes, and restrictions on use of foreign exchange, etc. to ensure that the rich did not get very much richer. This made life difficult for private enterprise as it could never make optimal use of its resources. Needless to say, the system was inefficient and while the public sector remained largely indifferent, the private sector found it difficult to grow as the challenge was always to get past the bureaucracy.

Economic experiences across the world have shown that such systems rarely deliver high growth and while government action is needed to bring about better distribution, it is seldom efficient. Their functioning invariably gets caught up in red tape and leakages, which are both genuine as well as self-created. Funds tend to get diverted for the improper reasons and the poor who are to benefit never really receive the benefit. Also, with corruption levels being high in developing countries, the delivery system remains fragile.

On the contrary, some of the more fast-emerging economies such as Malaysia, Indonesia, Singapore, Thailand, Brazil and Argentina have

51

managed to break free from a low-equilibrium trap and emerge stronger with the market principles at work. Distribution has been an inbuilt process here. But, it must be admitted that countries like India and China with their sheer population size would need some direct intervention because it would take decades for the percolation process to work its way down by which time most people would have lost hope. So, there is definitely need for government action to alleviate their conditions.

The turnaround came in 1991–92 when the country was forced to open up the economy and go in for liberalization, not out of choice but as conditions were imposed by the IMF (to be discussed later).

IS THERE A PERFECT SYSTEM THEN?

What is important to note here is that one can never come across a system which is purely capitalist and has the government playing the role of a police state only where private property rights are honored and preserved. Private enterprise will never find creating infrastructure rewarding where capital is lumpy and returns accrue, if at all, after a long gestation period. When the product is a public good such as a road or a bridge, then it is more likely to be a free good, though admittedly, the models are changing today. Therefore, for certain activities, direct government action is not only essential, but also singular since the private sector cannot grow without its help. Besides, even capitalist nations are not free from impediments. As the French philosopher Rousseau had stated in his famous collection The Social Contract, "Man is born free, and everywhere he is in chains. One man thinks himself the master of others, but remains more of a slave than they are." While one has the freedom to do what one does, there are a whole series of laws and regulations which at times could be inhibiting. This happens both internally and externally where the government invariably calls the shots whether it is in the form of permits, licenses, taxes or even at a global level through trade agreements. More of this will be discussed in course of this book.



Getting to Know the Government

"Many people complain about government waste, but I welcome it ... for two reasons. In the first place, efficiency is not a desirable thing if somebody is doing a bad thing. Government is doing things that we don't want it to do; so the more money it wastes, the better. In the second place, waste brings home to the public at large the fact that government is not an efficient and effective instrument for achieving its objectives. One of the great causes for hope is a growing disillusionment...with the idea that government is the allwise, all-powerful big brother who can solve every problem that comes along."

Milton Friedman

Historically, governments have had a very important role to play in the economic development of countries. The socialist system is at one end where all decisions are taken by the government while it performs just the plain policing role in the strict capitalist model. Irrespective of the model, the role of the government cannot be ignored. The USA, which is probably the most capitalist state is worried about fiscal deficits because the government exerts considerable power through its own actions. It is probably one country that gives maximum freedom to private enterprise, but the deficits of the government are a constant topic for discussion. Therefore, the concern everywhere is about the state of government balances which is a result of both its expenditure and income – expenditure because countries cannot carry on without such support and income because it directly affects our own personal disposable income.

RUDIMENTS OF A BUDGET

The economic activities of the government, which entail the collection and spending of funds are encapsulated in what is called the Budget. The budget is a financial statement that gives the revenue and expenditure of the government for the coming year. Besides the expected revenue and expenditure, it also has different sections comprising a detailed enumeration of the achievements of the previous year. It has the revised estimates of the previous year as well as the final figures of the year before. Thus, there are three sets of data provided in a budget. This is natural because the budget is normally announced in February before the year-end based on some assumptions of the current trends, which become the revised estimates. The final picture would vary and get reflected in the actual numbers with a lag and hence comes as a revised number from what was projected. It is analogous to the P&L statement of a company, which of course talks of the past and not the future, but comes as unaudited and audited results. However, the budget by its very nature is forward looking as it tells us as to how the government will garner its revenue through a variety of measures and how the money collected is going to be spent. It hence tells us what kind of a contribution is expected from the citizens during the year in the form of taxes.

The role of the budget has, however, changed in the last 15 years or so in India where it has also become a policy document that sets the pace for the policy pronouncements in other areas, too. Therefore, today we would expect it either directly or indirectly to set the tone for other policies such as the monetary policy, trade policy, foreign investment policy and at times even the approach to growth in capital markets. Therefore, the budget qualifies for the rational expectations model in which the government provides all possible information to the market players who can then take decisions based on these contours. By giving indications on likely approaches to be taken in the areas of trade or foreign investment or even the monetary policy (which is directly related to its own actions), the government is actually laying down a policy framework for all market participants. There has, however, been a debate as to whether or not the budget should be the platform for revealing all policies. While in theory knowledge of the approach is important and should be stated at one time, very often different signals are sent when certain sectors are not covered leading to some level of distress especially in the capital market as it becomes a habit to expect something for all sectors every time the budget is announced.

Budgets are formulated at different levels as we follow a federal structure. Typically, there is a Union Budget, which tells the story for the activities of the central government while the state governments have their own budgets that do the same for their respective provinces. There is also another budget of government at the municipal or local level that will vary across cities/centers. Each tier of government has certain rights

and responsibilities in terms of what taxes can be imposed and what expenditure have to be incurred. The relation between these two sets of budgets is decided by the Finance Commission, which has laid down certain rules for devolution of resources between the center and the states. Broadly speaking, the Constitution of India demarcates the area for legislation for the union government and the state governments. The tax implications are hence in accordance with these subjects. Agriculture, for example, is a state subject and the central government cannot impose any taxes. Also, it is recognized that some of the taxes which are collected by the central government are from states which have the activity based within their boundaries. There is also the issue of unbalanced regional growth where some states have witnessed slower growth. To even out these processes, the Finance Commission recommends the rules for devolution of funds across states. Successive Finance Commissions are established to announce these devolutions.

NUMBER CRUNCHING

The function of a budget is to balance the revenue and expenditure, which is further divided into revenue and capital accounts depending on the nature of the revenue or expense. If it is of a short-term nature like salary payment, it is a revenue account transaction, while if the same were to be used for building a bridge, it goes under the capital account. The attempt is to match the two and balance the budget through certain specified borrowing programs. It is analogous to a household that has to spend on groceries, which is current expenditure and on durable consumer goods or investments such as a car or a house, which is a capital expenditure.

Raising Revenue, the Revenue Account

Revenue is raised from taxes, other levies, dividend transfers from government enterprises and interest income from investments. Taxes are the main source of income for the government and can account for about 80% of total revenue. They are further classified under direct and indirect taxes. Direct taxes comprise income and corporate tax, which are imposed on the entities directly, while indirect taxes include excise and customs that are imposed on goods and in general is a tax paid only when an individual purchases them. Therefore, while excise is a tax on production, the sales tax is paid when the consumer buys the good. Service tax has been introduced in the last few years and has also been contributing to the fiscal coffers.

The tricky thing about tax collection is that it is contingent on the growth process. This is analogous to the supply-side principles where tax cuts were propagated for higher tax revenue. The ability to raise tax income depends on the growth of the economy, also called buoyancy. If the economy were growing at a steady rate, then income tax collections would go up automatically when income rises. Intuitively, it may be seen that when personal income goes up, so do personal tax collections. Similarly, in the bull phase the corporate sector tends to perform thus leading to higher tax collections. The same holds for excise collections as such duties which are imposed on the value of production. In case of customs collections, it is contingent on the growth in imports. If a depreciation of the rupee affects the quantity of imports, then the customs collections will also be affected. Any failure in the growth process would automatically mean a shortfall in tax collections. Therefore, all budgets start with certain growth assumptions, which finally need to fructify to justify the revenue targets. Often for this reason, it is found that the revised or actual figures for revenue collections are quite different from the budgeted numbers. The natural tendency here is to say that the government got its numbers incorrect again. But, to be fair to the government, it may be said that it has to work on the basis of certain assumptions that are implicit in its numbers. It assumes, for example that the GDP will grow by say, 15% in nominal terms. Now, if this number turns out to be low, if say inflation is low, then its collections will suffer. Similarly, an import growth rate is targeted for the year. If there is a recession, there will be a tendency for imports to slow down in which case customs collections suffer. Therefore, while the tax collection mechanism needs to be efficient, very often the government is powerless over the collections when the basic economic assumptions made do not fructify.

Interpreting Expenditure

Expenditure is often broken down into development and non-development expenditure. Development expenditure is one that has corresponding purchases or expenditure on tangibles. Therefore, when money is spent on something that is tangible, there is a corresponding economic activity taking place which makes it meaningful. On the current expenditure side, expenses on provision of water, electricity in rural areas, education, health services would qualify under development expenditure. Building roads or setting up a hospital or financing any part of the capital account plan is also development expenditure. These expenses are normally under the purview of the government as private parties may not always be interested. This is so because of the existence of public goods.

Public Goods

Public goods are those that are used by all people but are difficult to price because while some are willing to pay for it, others are not, and since one cannot discern the same, a levy becomes difficult (this line of thought is changing with the new toll roads being introduced). More importantly, no one can be excluded from using them. Good examples here are roads, bridges, parks, street lighting, etc. The problem of public goods is really how to charge for using them. There is the classic case of the 'free rider' where most people using the facility would not be paying for it. This is so because while some can and may also be willing to pay for the good they would not do so if they were not forced to. The example of a bridge stands out, where private parties are willing to construct them provided they could charge a toll. Pricing becomes tricky because while the rich, defined as motorist, pays for using the bridge the pedestrian escapes the charge even if he is affluent. Therefore, private interest is limited in the provision of public goods and the government has to take the initiative here. Investments are large and lumpy and the returns low with long gestation periods for the construction as well as the receipt of revenue, if any. The government is the only body that can undertake the provision of these services and hence such expenditure cannot be eschewed. This becomes more pertinent in rural areas where there would only be 'free riders' as no one would have the ability to pay for these services. Innovative schemes have been devised here where there are Build-Operate-Transfer (BOT), Build-Operate-Own (BOO) and Build-Transfer-Operate (BTO) schemes to get in private investment. The idea is to have a private party take care of part of the project and be paid for the same while it may be transferred to the government or operated by the same party. They have been successful in road construction in urban areas but would be progressively difficult to implement in rural spaces.

Non-Development Expenditure

Non-development expenditure does not really entail the production of any good or service and is a plain transfer payment, made by the government to certain sections of society. At the same time, it is essential for both economic and political reasons. Surprisingly, this is not an issue only for developing countries such as India, as even the western developed countries have these indulgences. It is normally argued that if expenditure is for a development process, then it is fine, but in case it is for non-development purpose, it is merely a transfer of money without any productive activity.

There are mainly three sub-headings here. These are: interest payments, subsidies and defense expenditure. Interest payments are made on loans taken by the government from the market and do not add value to the economy. But as these expenses have to be incurred, they come under this category. Intuitively, one can see that as fiscal deficit rises, government borrows more money from the market. The higher the loans, the higher would be the public debt level on which interest payments have to be made. This leads to an increase in interest payments in subsequent years. Interest rates could also rise on two grounds. The first is: when the RBI increases interest rates, all rates move up including those on government bonds. The other reason is when there is a paucity of funds in the market and the government is competing with the private sector for the same. There would be a tendency for interest rates to move up, as this is a necessary condition to entice banks to invest more in these governments compared with commercial borrowing. This is a vicious circle that has to be tackled head-on by governments.

The second item is subsidies. Subsidies, as the name suggests, are cash benefits that are being given by the government to certain segments to help them out. The two main subsidies in the Indian context are food and fertilizers. Food subsidies come in the form of the cost of the public distribution system where the difference between the cost of procurement and final price paid by the consumer becomes the subsidy element that has to be paid by the government. There are actually two parts to this subsidy. The first is a producer's subsidy where the price paid is generally higher than the cost of production since the price offered by the government is fixed by a formula, which gives cost 'plus' something extra based on predefined parameters. These prices are also called the Minimum Support Prices (MSP), which is offered to any farmer who wants to sell his produce. This cost along with other incidentals such as transportation and warehousing constitutes the cost of procurement. Thus, if the cost of procurement is say, Rs. 12 per kg and the price recovered is Rs. 8 per kg, then Rs. 4 goes as the total subsidy. The same holds true for the case of fertilizers where the farmer pays a lower price for fertilizers because of the price fixed by the government with the manufacturer being compensated by the subsidy paid by the government. Of late, the government has also included an oil subsidy whereby oil companies continue to sell petroleum products at a loss and get subsidized by the government, which either compensates them or subscribes to oil-bonds.

Defense expenditure is treated as non-development for historical purposes as the activity is considered to be of no intrinsic value. This is, however, questionable because any defense expenditure does correspond to the creation of a good or service and has some backward linkages to production. But, it remains under this 'strategic' category and is added to non-development expenditure.

The Counter View

It may be seen now that non-development expenditure is actually the Keynesian expenditure that we are talking of, as this is the component which adds to spending power without really contributing directly to the production process. In fact, thinking aloud, any non-development expenditure is non-development only in the first phase of the transaction. The receiver of this benefit will spend the money on all kinds of goods and services thus adding to the spending cycle. Even subsidies perform an economic function of providing incentives for the farmer and company alike. Therefore, as long as the money is not hoarded, they have an economic value especially in the Keynesian sense.

At a different level it can be argued that non-development expenditure is not only essential but also unavoidable. Subsidies are a must because they are the only way in which the poor can be reached. It is a different issue that there are implementation problems here, wherein it is felt that the poor do not end up having access to the PDS (Public Distribution System) and invariably there are large-scale leakages here. A food stamp system has been suggested in its place. Nevertheless, on theoretical grounds, subsidies cannot be faulted in a developing country like ours. All countries provide some element of subsidies to their people and very often it is in the form of unemployment benefits such as doles. Subsidies are to be viewed as incentives for an activity – the farmer receives an incentive by being paid an assured price while the consumer gets the benefit in terms of not paying the market price. Therefore, there is nothing amiss about running a subsidy bill though the effort must be on improving the delivery mechanisms. In fact, as will be discussed later, the developed world highly subsidizes agriculture, which has distorted on a very large scale the global agricultural relations.

Interest payments cannot be skipped as a government cannot backtrack on its payment commitments. We have seen the Russian government go back on its payments on global loans taken in the late nineties but generally governments do not renege, as there is a credibility factor involved. Further, there is an element of circularity as interest payments have been rising for the reasons stated earlier and therefore, cannot be lowered that easily. As the holders of government paper are banks, any departure from their pricing will affect bank profitability. The only way to circumvent this is to actually bring the fiscal deficit down to zero so that there is no borrowing and in course of time the outstanding debt is repaid. But this rarely happens, though the level of debt can certainly be reduced by the prevalence of a modicum of luck and prudence.

Lastly, as long as the borders remain vulnerable the government has to keep spending on military build up and maintenance. Hence, nondevelopment expenditure is really a given constant, which can be gradually reduced but rarely given up for good.

The difference between revenue income and expenditure is called revenue deficit. Ideally, this budget should match because if it does not, it means that the government has to borrow in order to meet this requirement. The analogy can be drawn to an individual who does not normally borrow for current consumption but does so only for creating an asset. However, if we as individuals start borrowing for meeting consumption, then there would be a problem going ahead. But, the revenue deficit remains the Achilles heel for most governments as they do end up spending more than they earn which is the starting point of rising fiscal deficits.

The Balancing Factor, the Capital Account

There are then elaborate processes for long-term mobilization of funds and their disbursal, which are called capital revenue and expenditures. Loans are essentially the major source of capital receipts followed by repayment of loans given to other entities such as state governments. Expenditures are essentially on projects such as public goods as explained earlier. The revenue imbalance has to be made up for on the capital account, and if not, then the deficit is covered through government borrowing. The borrowing is in effect what is referred to as the fiscal deficit of the government. In fact, earlier, loans were segregated into two categories: exogenous and endogenous. The exogenous loans were those that were reckoned on their own merit for certain project work, while the endogenous loans were those that resulted from the requirement of balancing the budget. However, this distinction has been ignored by the concept of the fiscal deficit, which includes all of them. More specifically, the fiscal deficit is the difference between total expenditure and revenue income and non-borrowed capital receipts which are essentially loan repayments. This deficit is normally denoted as a percentage of the GDP indicating the magnitude of borrowing of the government relative to the size of the economy. Clearly, this ratio needs to be kept in check and efforts have to be made to bring it down. While there is no number specified, a thumb rule says that it is desirable to have it below 3% of GDP.

The government has sought to control the fiscal deficit and targets are placed accordingly as part of fiscal control or fiscal responsibility. The basic idea is that the government should not have access to unlimited funds through borrowing because the day it does, there would be little

control of public finances, which may have deep-rooted ramifications on the rest of the economy. The system of borrowing now needs to be discussed.

HOW DOES THE GOVERNMENT BORROW?

The RBI, which is the monetary authority, undertakes the government's borrowing program on its behalf. The RBI offers for sale various securities of different maturities and the buyers are typically banks that have been preempted with certain obligations. However, there have been instances when banks have voluntarily invested large amounts in these securities due to boom conditions in this market. The other players could be insurance companies and mutual funds. Banks buy them either to meet the regulatory obligation or to make money through interest income or capital gains. The RBI auctions these securities on pre-specified dates. In case the banks do not subscribe to these securities they devolve on the RBI, which prints currency to pay for these bonds or securities. These securities are called G-Secs in monetary parlance and are issued for different time spans varying from 3 months to 30 years. All securities have a face value of Rs. 100 and carry a fixed coupon rate of interest. Therefore, they go with the names of 8.58% 2015 bond where the year is the terminal date for the same, with the security paying Rs. 8.58 every year. The securities are traded in the market at a different price depending on the market conditions and in case they sell for Rs. 98 then the yield is calculated as 8.58% on Rs. 98, which is 8.75%. Intuitively it can be seen that as the price of the bond goes down, the yield goes up. Therefore, when banks are worried about rising interest rates, it really means that the value of their G-Sec portfolio is falling and vice versa.

The government can also borrow directly from the RBI through what are called ways and means advances (WMAs). These advances are for a short term and limits are set for them during the two halves of the year. They could for example be something like Rs. 25,000 cr for the first half of the year and Rs. 5000 cr for the second half. When the government approaches a certain proportion of these limits like say, 75% or 80%, they need to come out with a securities issue. Hence, bankers are forever looking at this component of borrowing and would be able to smell an issuance and accordingly play in the market.

This is the crux of the issue. Higher fiscal deficits work in the way Keynes had envisioned. It does not really matter how productive these expenditures are. As long as they generated employment and hence consumption power, it was fair enough as the 'multiplier' and 'accelerator' would take over and ensure that growth took place the way it was planned.

But every time the government runs a fiscal deficit there is need for support on the finance side for which securities are issued and institutions allowed to bid for them. Now, the quantity of funds available for use is limited in any country. Money cannot be printed for the sake of financing deficits as that is considered to be imprudent for inflationary reasons. Therefore, there is the case of scarce resources that need to be deployed in the most efficient manner. This creates a dilemma in the system as banks have funds, which can be either deployed as credit or kept for subscribing to government debt. If it goes for the latter then the ability of banks to lend for commercial use diminishes, creating problems for investment and hence growth. There was earlier the system of pure monetization of the deficit when the RBI provided these funds to the government by printing more currency; but this is not something that is encouraged as it means reducing the responsibility on the government to keep its house in order.

So, the problem is both of competition for scarce funds as well as their cost. If there is excess demand for scarce funds, then interest rates tend to go up. As will be discussed later, banks have an incentive to hold government securities due to regulatory requirements as well as accounting pressures (to maintain prudential banking norms). In this way, higher borrowing from the government can upset the entire growth process.

THE PRIVATIZATION PUZZLE OR MUDDLE?

Privatization is a process where the government sells shares of its own companies called public sector units (PSUs) to the public or a bulk buyer, which can be a corporate. The shares are valued at the market price and the proceeds provide breathing space to the government who can then use these funds. There has been some debate over the use of privatization of public sector units to raise resources for the government. In this respect the government has gone in for large-scale privatization in the past where the resources have been used for bridging the fiscal deficit. Hence, there was a time when these receipts were adjusted for before the fiscal deficit number was arrived.

There are two issues here. The first is whether privatization can be a viable option for the government to raise funds to meet its revenue shortfalls, because ultimately a high fiscal deficit is a result of a high revenue deficit on account of the interest pressure. Quite clearly, this does not sound like a very good idea, where capital assets are being sold to the public and used to pay salaries of the government staff!

The other issue that has raised a controversy in the country is the very concept of privatization. Should the government be selling its enterprises to private parties? Experience shows that it was generally the profit-making companies that were divested and interpreted by those antagonistic towards this act as one of 'selling the family's silver'. Therefore, while this process is on it has also been finally decided to keep these proceeds outside the purview of the Budget.

Privatization has often been advocated for several reasons. The first is to make the public sector more efficient by privatizing parts of it. The issue of efficiency has been debated in the past and some of the questions raised are as follows. Firstly, which units should one privatize—the profit or loss-making ones? The answer should logically be the latter, but if the government were to sell the loss-making units then there may not be too many buyers. Modern Foods would be an exception, when Hindustan Lever purchased this company. Otherwise, interest may be only in those companies that are profit-making such as the petroleum companies. But if a company is profit-making, then is there a need to make it private? Probably not, going by the trends seen recently because if the motivation is to bring in efficiency then the unit needs to be inefficient, and if it is already efficient there would be no reason for privatization.

Secondly, there is a need to address the labor issue when one talks of privatization. The growth of the public sector was based on the premise that employment needs to be created. Therefore, there were probably three persons employed to do the job of one. But today, when we talk of efficiency there is evidently staff redundancy, which becomes a ticklish issue especially at the workers' level where the labor unions are unlikely to relent and allow for such retrenchment. It must be remembered that countries like India do not have a fallback support system for the unemployed and such large-scale layoffs can be painful socially with the potential to cause an upheaval.

Thirdly, at an ideological level, even if one were to accept privatization as a panacea for public sector inefficiency, can one consider bringing in the private sector ethic instead in this sector? This is significant because it has been observed in the banking sector that the public sector banks have shown a turnaround despite being in the public sector with few monetary incentives as such. Public sector banks compete favorably with the private banks in the country and are profit-making while also adhering to the prudential regulatory norms that have been laid down by the central bank. This has been achieved without any major incentive policy and has been driven more by the force of competition. This being the case is there really any need to forcibly privatize the public sector and handover the assets to private players? This is a moot question because if there is a

precedent of efficiency improving without any privatization, then there are other factors which drive efficiency and not just the ownership pattern. Besides, there are several examples of private sector units that are in the red due to inefficiency. Hence, it would be dangerous to assume that mere private sector ownership can change the efficiency of an enterprise.

But even if we agree that privatization is a must, it can never be motivated by the fiscal deficit. This is so because there is a limit to which such an exercise can be carried out and once all the units are privatized then this option would dry up. Hence, disinvestment for the sake of raising revenue cannot be a sustainable model for the government in the long run.

Another argument put forward by the protagonists is that such a measure can be directed at lowering the overall debt of the government instead. This school of thought goes on the premise that in case the proceeds are not used to relieve the fiscal deficit but are used instead to reduce the quantity of public debt which creates this deficit then by intuitive logic future deficits would come down as interest commitments decline. But, if the disinvestments proceeds are used for reducing the fiscal deficits are not diverted to reducing public debt, then the government would have to borrow afresh the same amount to meet the expenditure and would in turn nullify the entire initiative. Therefore, the financial aspect of the privatization process needs to be separated completely from the government's fiscal concerns.

Privatization is a sticky issue across the world for exactly the same reasons and there has been resistance to letting the private sector take over public sector units as well as utilities. As seen, there are compelling arguments to go ahead with this program, but there are practical problems that cannot be dodged. It is hence not surprising that governments are slow when it comes to implementing such doctrines.

HOW THEN CAN INCREMENTAL REVENUE BE RAISED?

The government has been grappling with the problem of balancing the budget. A strict and stern way of going about it is to change the approach to budgeting. Let the government behave like an individual. Individuals know their income and spend according to this limit. The government occupies a unique position and hence normally plans its expenditure and then sets about raising money. Ideally, the government should also behave like an individual and mark its expenditure based on its income. The message should be clear — if the government does not earn enough (including a minimum level of fresh borrowing), then its expenditure should be sliced down sharply with development expenditure taking the

brunt as non-development cannot be compromised for institutional reasons as explained earlier. But this is not a feasible solution since the government would like to fine-tune both the components.

While expenditure control raises more puzzles, the same holds on the revenue generation side. Non-development expenditure cannot be cut down. What about development expenditure? The government has the five-year plans and there have been 10 of them so far, with the 11th slated to be operative from the current year. Each year there is a plan outlay that has to be financed from the budget among other sources. The government's contribution to economic development is reflected in this expenditure. A responsible government cannot go back on this commitment and expect the private sector to take care of expenses such as education, water supply, irrigation, family planning, roads, bridges, health, etc. Therefore, the expenditure pattern is quite inflexible. It may be impractical to take a stance that the government will no longer finance development and let the private sector take care of these objectives.

Given this rigidity, the government has to raise resources through the tax front. Supply-side tenets work only to a certain extent where lower rates increase tax revenue. It has been seen that tax rationalization works when introduced after certain time lags and cannot be a continuous process. But, with large quantities of unaccounted income the country and the rigidities in the labor market, cutting taxes may not really help. Add to this the vast amount of exemptions that are given to different sections of people/sectors and the government is often at a loss regarding increasing its revenue.

On the other hand, every year the government receives a memorandum of demands from various industries and invariably no one wants to pay high tax rates and keeps asking for lower rates. One sector's input is the output of the other. For example, the steel industry wants duties on iron ore to be lowered so that its cost of production falls, while the automobile industry wants the same for steel. So, excise duty is an issue. Turning to imports there is no unique solution, as the user industry wants lower tariffs while the producing industry wants higher tariffs to ward out competition. Therefore, the government walks a tight rope when it is deciding on the indirect tax structure. On the direct tax front, individuals want higher housing benefits, interest earnings benefits and so on, while corporates clamor for more moderate corporate tax rates. So, invariably the government struggles to find ways of meeting these demands and also garnering revenue.

It has been mentioned earlier that services is the largest sector in the country. This sector was not paying any tax and therefore, the government has gradually brought this sector under its tax net by increasing the number

of services that need to pay tax. The logic is that we pay tax on a packet of biscuits; the same should hold good for a service which is used by the individual be it the facility in a gymnasium or a doctor. But, this is hard to implement on account of the existence of a large informal sector. While an initiative has been taken there is still a long distance to travel here.

The government evidently has to come up with new innovative schemes to raise revenue. One sector that has been kept out of the loop is the agricultural arena. Today, agriculture accounts for around 18% of GDP and is a state subject. This means that it is the state government that can legislate on this issue and while land revenue exists, it is hardly significant. The reason for agriculture being kept out of the purview is that the sector is associated with the poor who cannot be taxed. But what about the rich farmers who are the landowners and have the ability to pay these taxes? It is felt that even if 50% of the agricultural output which at 2007 prices would be around Rs. 360,000 cr is taxed at 10%, the government could pick up as much as Rs. 36,000 cr. More importantly, a start has to be made somewhere and the process could commence by bringing in the larger farmers under its ambit. Further, the classification of agriculture as being associated with the poor is incorrect, as the poor never own the land and work as laborers. In fact, a lot of unaccounted money gets stashed away in this sector in the name of being agricultural income. Attempts have to be made to tap this avenue.

The other area that needs to be addressed in today's world is pollution or environment degradation. Today, there is a market for carbon credits where industries that are able to reduce their pollution levels by using environment friendly measures are able to sell these credits to those who are polluting the environment at a market oriented price. Since the assumption here is that it is possible to identify the companies that are polluting the environment, the government can tax them. An elementary way to go about it is suggested here.

Suppose any economic activity emits a certain amount of pollution that is measurable. All companies which are registered need to pay a certain tax unless they are able to prove that they have in place mechanisms to ensure that these levels are reduced. This way the onus is really thrown on the companies to prove their innocence and the government need not search for the same. The company can either spend on pollution reducing devices or pay the tax. This way the government gains either ways. There would be problems in implementation where there would be a bribe cost attached to receiving the certification, but surely, as mentioned in the argument for agricultural taxation a beginning needs to be made somewhere.

Amnesty schemes have also been used periodically to unearth unaccounted money, which is also called black money. They have been quite successful in the past though they tend to work only if they are not used frequently.

The basic issue for the government is that the tax system needs to be both buoyant and elastic. When we say buoyant, it means that as the economy grows the income generated from taxation should move up so that collections remain vibrant. Alternatively, the elasticity should be high meaning thereby that any change in the tax rate should generate progressively larger revenues. If this does not happen then there would be problems for the government and they would have to progressively search for more avenues of taxation than the ones that have been suggested. Politically, some of them may not be that easy to implement.

Fiscal deficits *per se* may not mean anything adverse but given that there are scarce resources, which have alternative deployment avenues, there is the usual issue of choice. Also, if the government keeps borrowing at a fixed level from the market, there will be a tendency for pressure to build up on the available resources and when demand for funds is higher than the supply, the cost of funds must rise, which is the rate of interest. The government can pay higher interest rates as it is a circular flow anyway. But the commercial sector would counter a problem here with interest rates rising, which in turn will militate against investment.

Alternatively, more money can be printed which is a valid theoretical option, but when this money is used on the whole to finance an expenditure which does not result in a simultaneous increase in the production of goods, it would fuel 'inflation'. Therefore, fiscal deficits have a direct bearing on the monetary situation of the country, which is controlled by another entity called the monetary authority and which in India is the Reserve Bank of India.

It is time now to look at the monetary sector and examine what happens in this segment. This is another critical segment of the economy, which probably receives the maximum columns in the business daily newspapers and business journals.



Money, its Supply and Monetary Policy

"A central banker can never really doze in the sun".

Financial Times

Every country has a central bank or a monetary authority, which is involved with the assignment of printing currency and ensuring that money is available to the people. The Federal Reserve guides this role in the USA while the European Central Bank does the same in the Euro zone. The Bank of England and Bank of Japan are the other central banks of United Kingdom and Japan respectively. In India, the central bank is the Reserve Bank of India (RBI), which has been assigned a number of such related functions.

Textbooks talk of the RBI printing currency, being a banker to the banks, government's banker, conducting monetary policy and being a custodian of foreign currency reserves. The monetary authority should in theory be an independent agency, which is attached to the government as currency printing and circulation has to be the function of the government. The RBI is a banker's bank meaning thereby that it not only maintains some of their balances to maintain the integrity of the system but also becomes the lender to the government in time of need. In case a bank is in trouble there is a back up in the form of the RBI, which assumes the role of the lender of last resort (remember Northern Rock Bank in UK?). By managing public debt, i.e. liabilities of the government, the RBI is a banker to the government. All loans that need to be raised by the government are done through the RBI, which acts as the manager of these issues. It is also the custodian of foreign currency and hence becomes the one point contact of these reserves through the banking system. Lastly, conducting monetary policy becomes its operational duty, as it has to balance the overall objectives of the nation

with its own and judiciously steer the economy along the growth path. This last function is a tricky one because while this is an independent function it has to be in consonance with that of the government and often can be overwhelmed by the political forces that drive governments.

However, from the point of view of efficiency central bank independence is needed so that the Bank can take decisions, which it feels are best suited to the economic conditions. It needs to be an unbiased entity, which should not be influenced by external forces. While this holds true quite unequivocally in theory, this may not always be too easy to accomplish as will be seen along the way.

THE CRUX

One of the main functions of the RBI is to conduct monetary policy. Monetary policy consists of a series of measures that are announced by the RBI to guide the growth in the money supply of the country. One may want to increase or decrease it depending on what kind of a stance the governor of RBI is taking. This goes back to the theoretical foundations of economics, as the governor has to believe in either the Keynesian or the Monetarist theory. Of course, one can always believe in both and pursue the one that brings in the best possible results depending on the circumstances. Therefore, in case the RBI sees inflation as the main threat, then it makes sense to turn monetarist and work towards controlling the growth in money supply. Alternatively, if growth is stagnant and the economy needs a kick-start, then monetary loosening is recommended so that the right signals are provided.

But then, what is money supply? Money supply in India is defined in two synonymous ways. The first is from the deposits side where the sum of currency and demand deposits with banks is added to other deposits, which are primarily inter-bank deposits. This is called narrow money. There is a broader concept wherein time deposits are also added and is called M3 or broad money. M3 is the indicator we look at when we talk of money supply. This is a broader concept as it takes into account the fact that on the basis of a time deposit, banks lend money to others who in turn would re-enter the deposit stream and so on. Hence, the same deposit turns over a number of times to increase money supply as the bank's ability to lend will keep increasing every time a fresh deposit comes in. The logic here is quite straightforward. Banks are financial intermediaries and their function is to ensure that the funds which come in through deposits are used for lending purposes to those who need them at a higher interest rate hence yielding a net margin on deposits.

The difference between the two rates is the cost of intermediation and includes operational costs as well as nominal profit.

There are other concepts too of money supply, which include post office deposits, as these amounts are also garnered in a similar process through deposits and are popular in rural areas in particular. However, from the point of view of monetary policy it is only the funds that flow in the banking stream that are important and hence the money supply concept is restricted to them.

A Digression, Why Intermediation?

The advantages of intermediation are quite important. Individuals who have surplus funds would like to lend, but do not know who to lend to and whether or not the borrower is credit worthy. The absence of such information makes it difficult to judge borrowers. However, when banks come in they have this information on various borrowers and are able to evaluate the same in their appraisals. Besides, they spread their loans across a wide cross-section of borrowers and hence are able to diversify risks across borrowers. Therefore, their ability to take risk is higher. The two terms that are used frequently is the existence of 'asymmetric information' and the question of 'moral hazard'. Asymmetric information means simply that all people do not have the same information on all variables, which makes 'moral hazard' an important concern. Banks with their superior knowledge and expertise are able to tackle both the issues with their own databases and information networks and are hence able to reduce moral hazard and spread risk across a broad portfolio.

MONEY SUPPLY DEFINED FROM THE CREDIT SIDE

The mirror image of the same is on the credit side. Money supply can be reckoned as the sum total of all lending activities, currency and foreign exchange assets that come into the system. Thus, money supply is defined as the sum of bank credit to the commercial sector, bank credit to the government, increase in foreign exchange assets of the banking system, currency liabilities of the government and a balancing item called net non-monetary liabilities of the banking system.

The banking system here includes both the RBI and other banks. The distinction is important because every time the RBI lends money to the government or commercial sector, it has to print fresh currency. The same money lent by banks means the churning of deposits and while it increases money supply it does not add to monetization. Now, the RBI

tries to control growth in money supply through its policy measures by controlling the growth in 'reserve money'.

Reserve money is fresh money created by the RBI and is also called high-powered money in textbooks. These reserves essentially are created when the RBI lends to the government or the commercial sector or purchases foreign currency. Whenever the RBI has to lend, it necessarily prints money and adds to the reserves, which are the basis for future lending operations and hence the foundation of creation of more money. Based on this reserve money, money supply is generated; and the multiple of the base reserve, which translates into money supply is called the money multiplier. The greater the turnover, the larger is the multiple. In a sense, money becomes efficient in case it can turn over a larger number of times, which is what happens when there are innovations in the system, which pushes up the growth in credit.

Alternatively, the RBI can control the ability of banks to lend money by invoking some policy measures or even redistributing credit to say, the government sector. This way even while money supply per se is unaffected, by pocketing more of funds with banks by sale of government paper being held by the RBI, it can reduce liquidity in the economy and hence money supply growth.

The growth in money supply is essentially the target of monetary policy and the measures that are invoked by the monetary authority try to steer the overall growth in money supply by moving these individual components.

MONETARY POLICY

Monetary policy of the central banks is the series of measures used to control the growth in money supply. The RBI first decides on its basic objectives of monetary policy. This is where economic theory comes into the picture. The goals are normally growth and inflation, which can be seen as the motivating factors of all RBI credit policies. To facilitate real economic growth money has to be provided through credit; and to control inflation this growth in credit and hence money supply needs to be monitored. Therefore, a delicate solution has to be found by the RBI in terms of targeting these variables.

The standard textbook talks of different instruments used by the central banks to do so. The first is the bank rate, which is the rate at which the RBI lends to the banks through discounting facilities. The premise here is that if the RBI makes borrowing difficult for the banks, then the banks will do the same for its borrowers. The bank rate is however, not really used actively by the RBI today. Central banks invariably have a reference

rate, which may or may not be the rate at which it would lend to the banks. Often it is the discount rate, which is benchmarked to the reference rate. The Fed has a Fed rate, the Bank of England a bank rate, ECB a refinance rate and Bank of Japan a basic loan rate.

The more pertinent measure in the Indian context is the reverse repo and repo rates. Now what are these two instruments? These are basically repurchase obligations as the name suggests and involve the simultaneous sale and purchase within a specified period of time. In case of the repo, the RBI injects currency into the system by purchasing securities offered to it by banks and then gives cash in return. Banks need the money and hence are borrowing from the RBI and pay an interest rate on it, which is the repo rate.

In case of a reverse repo, the RBI takes out liquidity from the system by selling securities and making banks pay for them in cash. Banks lend to the RBI because they do not have use for it, and the RBI is happy to take it out of the system as one of its objectives is to balance liquidity in the system. These repos are normally for a day (at times they could be longer tenures though it generally never exceeds a week) and auctions are held every day and the money is returned the next day. All surpluses are invested in reverse repos while shortages are made good through repos. Normally the repo rate is higher than the reverse repo rate meaning thereby that the RBI will lend to the banks at a higher rate than it borrows from them. These two rates become the floor and ceiling rates or basic indicative rates that have been set for the system as a whole and in turn serve as benchmarks that are used by banks to set other interest rates.

Why are these instruments important for the system? Banks typically lend and borrow from each other in the call market. They also have to meet certain statutory requirements such as the CRR (Cash Reserve Ratio) every fortnight. If banks have more money they lend them to others who need them and vice versa. When funds are in surplus, the call rate, which is the rate at which overnight funds are borrowed and lent, falls to a near-zero level. This is so because no one really needs it. Banks can then invest in the reverse repo and this rate becomes the floor in the call market. In the other situation, if there is a shortfall of funds, on say, the reporting Friday of the month, then call rates could theoretically cross even 100%. With the repo window being open, banks can borrow from the RBI to meet their commitments at a reasonable rate. The repo rate acts as some kind of a ceiling. Therefore, in the call market, the reverse repo and repo rates act as floors and ceiling and provide a band for market participants. The RBI could put limits on the amount that could be borrowed or lent by it, but that would go against the spirit of having these instruments.

Closely related to this instrument is the CRR or cash reserve ratio. As a prudential measure the banks are supposed to keep aside a part of their total demand and time liabilities (mainly deposits) in the form of cash and have to ensure this is maintained on the two alternative reporting fortnights. The idea is to ensure the solvency of the system in the event of a crisis where banks must have certain cash with them to pay off the deposit holders. Therefore, banks are not allowed to lend all their deposits and have to perforce keep aside a part of these resources in the form of cash. This ratio hence puts certain constraints on the amount of money that the banks can lend. By raising the ratio, banks have to hold on to more cash and hence can lend less to the commercial sector. This is a powerful tool as it actually lays claim on the lendable resources unlike the repo and reverse rates, which are indicative of interest rate movements but cannot forcibly make banks change their interest rates in a free market. This is so because in a liberalized market the RBI is not to dictate the lending and deposit rates and can only provide guidance on its objectives. There have been times when it has raised rates, but banks have not followed suit. But, for the CRR the action is direct and has a perceptible impact. However, a high CRR is detrimental to banks because these are funds on which it earns no income and pays deposit holders a minimum of the savings account rate and could go up based on their source. From the point of view of efficiency this is not normally preferred though it has a more direct impact on funds flows in banks.

In the last couple of years the RBI has been using these two instruments to guide monetary policy with a good deal of success. It must be mentioned here that when the RBI raises interest rates through the repo or reverse repo rates, banks are really free to follow suit. Prior to financial sector reforms, the RBI would actually fix the rates of interest on both the deposits and loans sides. There was a Minimum Interest Rate (MIR), which was to ensure that there was no undercutting by banks to gain business. This has changed now and for the sake of transparency banks have been told that they should be announcing their Prime Lending Rates, or PLRs which is the rate charged by the bank for the best rated companies or clients. However, this term has lost its significance because it was a not long ago when banks had surplus funds that they were actually lending at rates which were much lower than the PLR called sub-PLR lending. But, it is still indicative of the level of interest rates.

Again, higher repo rates indicate the RBI's position on interest rates. Banks may choose not to raise their interest rates. After all, if one looks at the entire banking system, on an average the amount transacted in repos and reverse repos would be in the region of say Rs. 30,000 crore at the peak time. Hence, a 50 bps change in this rate actually affects the

banking industry by Rs. 150 cr for the entire year at the most adverse times. There have been instances when some banks do not necessarily follow the RBI or alter their interest rates by less than the increase in these benchmark rates.

Another measure that the RBI can use, but has not used for a long time, is the SLR or Statutory Liquidity Ratio. This tells us to what percentage of the banks' assets has to be kept in the form of government securities. This has remained constant at 25% for quite some time. This is an important instrument because it serves two purposes. Initially, it was meant to provide some stability to the system because banks had to hold government securities, which are considered to be liquid assets that can be converted to cash any time they want in times of a crisis. The second purpose turned out to be the financing of the budget. Intuitively, it may be seen that if banks are told to hold more government paper, they will be financing the deficit when there is no other way out. There was a time when the SLR was in the high thirties but was brought down to 25% in 1997 from 38.5% 1990 and remains so at this level. But very often when banks have surplus funds and credit is not growing at the same rate as deposits, banks find it convenient to invest in government securities and the investment deposit ratio has at times crossed 35%.

The other important tool used by the RBI to regulate money supply is through the purchase and sale of securities in what are called open market operations. This is not just through the repo mechanism, but also through fresh primary issues of government paper where banks purchase these securities thus lowering the quantity that is available for commercial lending. This is called Open Market Operations or OMO. However, here again, the RBI cannot really force banks to buy or sell securities—though normally it works given the changes in the interest rates. A couple of years ago it was observed that the RBI holdings of government securities had fallen and in order to successfully conduct these operations it was forced to issue a different set of securities called Market Stabilization Scheme Bonds (MSS).

The RBI had at one time also had a system of selective credit controls wherein they put limits on the borrowing that could be undertaken against certain commodities considered to be essential. However, this is no longer used to control the growth in credit.

THE TRANSMISSION MECHANISM: HOW DOES MONETARY POLICY WORK?

To understand how monetary policy works, we need to look at the components of money supply from the credit side. When one component

goes up, say the foreign exchange inflows, then money supply would have to increase. However, the same money can be re-circulated by raising the CRR causing the growth in bank credit to the commercial sector to slow down. The same holds for the SLR. Thus while money supply per se rises, the ability of banks to lend is reduced. There are some factors such as foreign exchange assets over which the RBI has little control. As dollars come in they have to be monetized unless we have a policy that says dollars cannot enter the country, which is quite difficult to implement. The adjustment is invariably on the ability of banks to lend money to the commercial sector through various monetary policy instruments. Hence, while money supply goes up the other components, which would have increased are reduced.

Similarly, when the RBI conducts open market operations it can sell securities, which banks buy and hence their ability to lend to the commercial sector comes down. This is a more subtle way of controlling the growth in money supply. But what happens if the RBI does not have the stock of government paper? This cannot be ruled out because as the banks increase their holding of G-Secs, the RBI will have fewer stocks of them. This will make sterilization of say, forex into the system more difficult. To counter this problem, the RBI of late has been issuing Market Stabilization bonds to mop up excess reserves from the system. In this case, these bonds are issued and serviced by the government, and it can intuitively be seen that the fiscal deficit takes a hit as the interest payments component increases sharply. Hence, monetary action through these bonds has fiscal implications, which is exactly what had happened in India when the RBI sought to counter the high inflows of forex currency into the system in the last few years.

What Should be the Focus of Monetary Policy?

It is agreed that monetary policy can have a positive impact on inflation. In fact, all the measures described with examples talk of controlling the growth of money supply with the underlying assumption being that the goal is to control inflation caused by excess money supply in the system. But, what about growth? This is critical because the central bank's approach to growth should be known. In the USA for example, the Federal Reserve is hesitant to allow a recession and there has hence been a tendency for interest rates to be lowered substantially every time there is the threat of a recession. The question is, what should be the stance of the monetary authority? Joseph Schumpeter in his theory on creative destruction was all for a recession because he felt that a recession helps to separate the good from the bad and that this helps in eliminating the

inefficient firms which will go bust in these conditions. Further still, this will release capital to be used for more productive purposes. In fact, subsequent studies have shown that countries that go through high volatility in output growth are also the ones that witness greater improvement in productivity. A recession helps to curb the extravagant growth that normally precedes this downturn, which is abetted by low interest rates. Recessions hence automatically put brakes on such unbridled growth. By monetary intervention the central bank may actually end up exacerbating the situation and would encourage more borrowing and reckless lending which will make the crises more acute than before—may be culminate in deeper recession or depression.

More importantly, when money supply is linked to growth there should be a surprise element or else going by the rational expectations argument, monetary policy will cease to have an impact. Further, as indicated earlier, if the market knows that the central bank will intervene to bail out the economy *a la* Keynes style if on the precipice of a recession, then there will be the issue of moral hazard with more reckless lending taking place. Therefore, there is what is called the 'Taylor's Rule' which links the interest rate movements with that in inflation and growth. The rule talks about how the monetary authority should behave in case the GDP growth rate deviates from the potential GDP rate and when inflation exceeds the targeted inflation rate. Ideally, if there is slack in production relative to capacity, policy should be expansionary while inflation higher than the targeted rate should lead to monetary hardening. Monetary action should be predictable within these limits only.

UNDERSTANDING INTEREST RATES

Theoretically, interest rate is the cost or price of money. To reintroduce some jargon, it is the result of the interaction of the demand and supply for money. It is the price which has to be paid to investors to forego consumption today and is also explained as the value of time preference. From the person who is demanding money, it is the cost to be paid for borrowing funds for utilization. The interplay of the two yields the interest rate, which is just like the price of any commodity. However, unlike a physical product or even the exchange rate there is no single interest rate in the country.

Interest rate is not a unique rate and if a question were to be posed as to what are interest rates, there can be no definite answer. This is so because there is a whole array of interest rates in the system with different tenures and different market participants with differing appetites.

Therefore, the factors affecting these rates vary from instrument to instrument. In general there are: deposit rates, lending rates, G-Sec rates, call rates, CD rates (Certificates of Deposit), CP rates (Commercial Paper), corporate debt paper rates and rates for different tenures. The more common rates are the deposit and lending rates, which are critical for individuals. But here too there is an array of rates depending on the tenure. Deposits of a shorter duration normally earn a lower rate than those of a longer-term duration. The same holds good for lending rates where a loan for five years may cost more than a shorter-term loan though normally credit is collateral based and may not really depend on the tenure and would vary with the purpose of a loan—a vehicle loan costs more than a mortgage as the latter goes on for 15-20 years while the former is normally repaid within five years. Again, if one looks at the rates on various government securities, while normally they tend to move up with the duration of the loan, the increase is not proportionate. It would tend to be less than proportionate, meaning thereby that while a 5-year bond has a yield of 7%, the 7-year bond could be 7.1% and the 10-year 7.20%.

All these rates are related to one another and tend to move in the same direction albeit at different speeds. This is the basis of monetary policy wherein a change in the CRR or the repo rate can actually make all other rates move in the same direction; or else, monetary policy will not be effective. The premise is that the interest rate, which is determined by the relationship between demand and supply of funds, is the true cost of funds. If this logic fails then the goal may not be attained.

An interesting issue that arises is that when the repo or reverse repo rate affects only a fraction of the funds dealt with by banks—not more than 1–1.5% of total credit—why should this be significant. The answer is that this rate affects the interest rates in the money market and G-Secs market and there is an automatic re-pricing of all bonds in the market. Hence, the impact is on a portfolio, which would be around 45–50% of the credit portfolio—the investment portfolio. Therefore, this innocuous 1% effect becomes a 50% impact.

A related subject here is the yield curve. Often one hears of the yield curve being downward sloping or upward sloping. The yield curve is actually a graph drawn on any particular day mapping the various interest rates for different maturity of paper. In fact, this can be drawn up for any particular moment when the market is in operation. In India, the corporate debt market is not well-developed and hence such a schedule is possible for government paper only. The law of efficient markets states that we need to have a wide array of liquid securities with all maturities to have a meaningful yield curve.

Typically the yield curve slopes upwards, meaning thereby that as the tenure increases interest rates should rise. A 10-year bond should have a higher yield than say, a 5-year or 2-year bond. And as a corollary, the call rate should be lower than all the other rates. The reason is that the interest rate is the return for 'waiting', i.e. there is a time preference, which needs to be rewarded with better rewards. Therefore, this logic must hold. However, while this reasoning may break down when it comes to call rates as it is based on immediate requirement for money, which can vary between days, the same should not happen for other tenures. But when this happens, i.e. the yields on long dated securities is lower than that on short-term paper, then an anomaly comes in which needs explanation.

In fact, the inverted yield curve has been seen in the US and has also been interpreted as a leading indicator for a recession. How can this be so? If one expects a recession, which means low level of economic activity in the future then there will be less incentive to invest and the demand for long-term funds comes down. Therefore, yields tend to shift downwards. At the lower end, one needs funds to finance inventory that is on the rise. Industry in particular will tend to demand more funds, which in turn will push up the interest rates on shorter tenure securities. Therefore, there is a clear case of a recession indicated by the yield curve.

If this always holds then it can be seen that the movement in interest rates is a good signal for a recession, which can actually induce governments and monetary authorities to really take prompt corrective action to minimize the harm caused by these recessions. But, a precondition here is that the market should be liquid or else interest rates would not be reflective of the market for securities for specific tenures. This is a problem in the corporate debt market in India, which is not liquid and which would ideally be the yield curve to watch out for recession signals. The government securities market is a useful one and does reflect such tendencies but the players one must remember are essentially banks, which may not be taking a call on the economy. They are more likely to go for securities to maintain their own asset-liability mismatches.

There is hence, definitely need to develop the corporate debt market to get the right signals for the economy.

IS THERE A CONFLICT OF INTEREST?

A question raised is how free should the monetary authority be? If the government wants to print more money can the monetary authority

refuse? If the government wants interest rates to be lowered or increased, can the RBI remain silent? And more importantly, should the government ever try to influence the central bank's actions?

Theoretically, the central bank has to be free and should not be influenced by the other arms of the government. This is so because any pressure on the central bank to mould policies to placate certain other government decisions would come in the way of the smooth functioning of its monetary policy which in turn could have negative effects on the state of the economy. It is often said that monetary policy should be dictated by economics and not politics, while the government would always be dictated by politics. Therefore, the government should actually try not to influence the central bank in any way.

The RBI for instance needs to formulate its policy based on its own expertise and perception of the economy. Interest rates should be raised when inflationary conditions are prevalent and cannot be kept low to help industry. The RBI needs to decide on what has to be tackled rather than the government. But, there is a conflict of interest here because how can one decide whether it is the RBI or the government to take a call on choice between inflation and growth. The government has its own motivations and may feel that the time is not suitable for a rate hike when inflation is high as growth should be a priority. How is one to decide the goal here? There is no clear answer and ideally the two arms need to be talking to one another continuously. The problem really arises in say an election year, when the government would like to have lower interest rates even when inflation is high because it would like to placate certain interest groups. Here, the RBI needs to use its own judgment and take a longer view than the government, which usually has a time horizon until the next elections. But, is this feasible considering that the government makes all central bank top appointments? This is where there is a conflict of interest and the reason why the central bank has to be an autonomous and independent body that can take decisions irrespective of what the government desires.

While this sort of delicate situation arises when there is a direct conflict, another awkward situation for the RBI is when it has to manage public debt, which is the debt of the government along with monetary policy. In order to do this, the RBI has to space out borrowing in such a manner that there is no monetary or liquidity problem in the country. At the same time there are monetary policy compulsions in terms of meeting the twin goals of growth and stability. We can think of a situation where the government has to borrow money at a low cost, which is the goal of fiscal policy. The RBI, which is managing this, has to increase rates because there is inflation. What does it do? Here there are no ideological

differences with the government, but there are differences in the motivations of the two departments of the RBI. Which one will prevail?

The logical answer here is that the central bank has to be free and should look at its own goals and objectives and try and align its working and functioning to them. The first priority must be to go according to its own perceptions and the government should ideally not interfere with its working. We should not have the finance minister saying that he would like to have interest rates go down when the Budget is presented as the market would know very well that the monetary policy which is presented after a month or so would have to introduce changes to keep the finance minister happy. A distance must be maintained between the two with the RBI keeping the government's wishes in its radar while formulating monetary policy—which will also be very pragmatic.

HOW OFTEN MUST WE HAVE THE MONETARY POLICY?

This question arises from the ideological school that is being pursued. As said earlier, a Keynesian will always go in for a discretionary policy so as to influence the level of economic activity while a monetarist would talk of a 'rules based policy'. The New Classical School will maintain that a discretionary policy is not advisable, as it would mean 'fooling the people' which should ideally not be encouraged.

There was a time when the RBI announced its policy twice a year. The first was in April and the other one in October or November. The first one was called the slack season while the second was the busy season. The reasons for these names were straightforward. The period May-October corresponded with low economic activity in the country. There were no harvests and industrial activity was also low-key. The demand for credit was typically low as there was limited investment taking place during this period. This was the time when the RBI could push forth its government borrowing program as banks had funds which could be not be lent. Therefore, government paper was a good investment option to idle resources. The busy season came just after the harvest and the farming community needed funds. Industrial activity picked up since this was the festival season when people tend to spend more money on food, clothes, jewelry, etc. Hence, demand for goods was also high at this time of the year. In turn, industry would start demanding funds from around September onwards to meet this demand over time and bank credit would start rising from this point onwards. In fact, personal lending also tends to increase at this time as most consumer goods as well as homes are bought when the festival season is on.

The RBI therefore had a conservative policy during the first half and a more aggressive one during the second half depending on the growth and inflation conditions. The stance taken was that we should have certain goals that are set and reviewed and decisions should be based on such progress reports. However, once the economy became more vibrant and hence volatile, it was essential to go in for fine-tuning, a la Keynes. The RBI would intervene more often in the market and fine-tune the money supply growth with changes in the CRR or interest rates. The idea was to intervene whenever necessary. The critics pointed out that this only meant surprising the people more often than was necessary. Subsequently, the RBI changed the entire approach with a monetary policy announcement in April, followed by three quarterly reviews of the economy as well as monetary conditions. However, it retained the right to intervene when necessary and there was thus a combination of both the Keynesian as well as the Rational Expectations approach. The question raised now is whether or not this is the right way to go about it. Should there be so many policies when the discretionary power is already being exercised? Very often monetary policy changes are announced outside the policy dates as and when necessary.

Should there hence be several monetary policies? This is critical because in economics most variables move based on expectations. One can notice that the market reacts to expected policy measures just before the policy is announced. This being the case, considerable volatility is being introduced in the market on account of the policies. This may not be desirable as there is that much more 'noise' being created. Besides, if the RBI is exercising its discretionary powers even between policies, then there is no reason to have three reviews, which generate these 'noises' in the markets. Noise is basically market disturbance caused by expectations of the behavior of any variable or entity. When we talk of markets, it is not just the debt market but also the stock market where invariably we hear of the Sensex losing 200 points because the RBI did not raise or lower the repo rate.

There is hence no clear answer here as there is merit as well as demerit in both the approaches. Today, it has become quite a fashion to have discretionary policies where the governor of the central bank comes into the frame once too often and has the market guessing a month before the policy. This may not be a strict discretionary policy as it is a rules-based policy, which is valid for a fixed short-term period. And following the train of thought of the central bank's behavior, one also tends to conjecture intervention in-between policies which make this otherwise grim sector of the economy more interesting, especially so with the proliferation of the media which is busy clicking the camera every now and then and observing the expressions on the Governor's face!



Banks and Banking

"I did something that challenged the banking world. Conventional banks look for the rich; we look for the absolutely poor. All people are entrepreneurs, but many don't have the opportunity to find that out".

Muhammad Yunus

Banks are the leading financial institutions in the country. They are the driving forces in the economy for collecting deposits and on-lending these funds in this entire process of intermediation. Hence, the volume of transactions (on both legs of deposits and credit) that go through their system is actually much larger than the size of our GDP. This number is even higher for developed countries and quite ironically India is considered to be an under-banked country. Probably this could be because a lot of savings in the country, especially in the countryside is locked in cash or jewelry and thus moves out of the traditional banking stream.

There are different kinds of banks in the country and this is partly due to accident. There are commercial banks, land development banks, cooperative banks and development banks besides a whole host of micro finance institutions. There are three kinds of commercial banks: public sector, private sector (old and new) and foreign banks. But, as the purpose here is to understand banking issues rather than banking systems and operations, the focus is centered on the commercial banks, which are the dominant segment in this sector.

REWINDING BANKING HISTORY

Banks were all in the private sector until the nationalization process in 1969, which actually turned out to be a turning point in the history of

India's financial sector. One fine day it was decided to nationalize banks to ensure that a critical sector, which was the driving force of the economy would channel funds in the direction that the economy needed rather than in areas that they desired. This move was in accordance with the spirit of socialism, which clearly dominated our thinking even 22 years after independence. This necessarily meant that certain goals were automatically laid down which had to be followed by the banks. Most of the major banks were nationalized in 1969 while the remaining were covered after 11 years while some smaller ones continued to be in the private sector. Nationalization meant that the banks were taken over and owned by the government. They were told to follow certain principles that were based on our goal as a socialistic nation.

Therefore, they had to do some peculiar things such as: open branches in remote places to increase the reach of banking, make banking available to all, lend money to certain sectors (called priority sectors), employ as many people as possible, and so on. These principles clearly indicated the need for mass banking in the process of creating an egalitarian society. Hence, banks had to open branches in every corner to develop the deposit habit in people and one could open an account in a bank with as little as Rs. 5. Small entrepreneurs who would not have got loans would now be getting them and surprisingly commercial considerations could take a back seat. The idea was that credit should be made available to all, especially the weaker sections, which had virtually no alternative except the moneylender. To facilitate such credit, interest rates were fixed and regulated by the RBI and hence the bank per se did not matter for most customers who in turn tended to be quite inelastic to variations in interest rates in different banks. They invariably chose the bank branch that was within their vicinity and service conditions made little difference. From the point of view of banks, profits did not matter as they were governmentowned and losses would be booked in the Budget. Also, the accounting practices were flexible. If I owed the bank money and did not pay interest on it, the bank could treat it as income accrued but not received. Hence, income went up and the bank still showed a profit even though the interest income was not received. Needless to say, that while the socialist goal was well addressed—we have one of the largest banking networks in the country with close to 70,000 branches, which is gradually replacing the local moneylender as the chief source of finance—the system tended to become inefficient.

There was no accountability for the bankers who only had to meet targets; and one can still remember the tea-sipping clerk who did not bother whether you banked with his branch or not. You could go to another branch but you would get the same treatment. You could of course opt for a foreign bank but they would require a minimum balance and charge you for the services. This, along with an English-speaking suit-clad official could appear daunting to the layman and these banks continued to exist for the upper classes as distinct from the nationalized banks which were meant for the masses. Public sector banks were more approachable and you could open an account with as little as Rs. 5 in the account with no other liability. There was no real competition between two nationalized banks as they all operated in a similar manner and the one closest to you made the most sense or the background of the bank mattered. A person from Tamil Nadu would prefer a Tamil speaking manager of a branch of Indian Overseas Bank, while a person from Punjab would go to PNB to sip tea with the Punjabi speaking branch manager. The RBI fixed the deposit rates and all the banks followed suit. There might have been a 25 bps difference in some deposits but the sheer task of changing branch was tedious and not really worth it.

More importantly, funds were pre-empted in the form of priority sector lending where banks had to keep aside a certain portion of their total lending for these targeted sectors. Broadly, the priority sector included agriculture, small industry and something called weaker sections, and this concept has undergone several changes in course of time to include various other segments. These sectors could be charged lower interest rates and the evaluation process could be more lenient. Needless to say, banks pursued some reckless lending at times to meet targets. On the lending side, targets had to be met and very often loans were disbursed based on recommendations. Loan melas (fairs) were commonplace where loans were put on a fast-track mode without any due diligence being carried out by the bank. The target was clear and as long as the branch met this number it qualified for 'performance'. The level of honesty was low within the system. Often the farmer who went for a loan of Rs. 100 would end up getting not more than 50% of the amount after paying along the way. Being illiterate did not help his cause any better. It is now anecdotal that when there was a cow scheme under the Integrated Rural Development Program (IRDP) in the 1980s where loans were given to the rural people for purchase of cows, the loans were actually given for the purchase of fictitious animals. The audit trail would invariably come to a conclusion that the cows had died due to a disease! The number of deaths of cattle would have been very large if the loans were mapped which would not match the records anyway. In short, the system gave rise to a lot of red-tape and corruption.

The internal administration of banks also took a turn for the worse. Overstaffing was the norm as employment targets were fixed and had to be met. A huge establishment of clerks and peons as well as sweepers and *hamals* (porters) was created, which is a legacy even today. They

were employed to keep the system running, which in fact thwarted efficiency. Files would not move without the peon and the clerk could be rude because this category of staff was unionized and had the right to strike work if any action was taken for a wrongdoing. The system hence became fairly burdened with deep-rooted cynicism.

However, to the credit of the nationalization drive which was extended in 1980 to include 6 more banks, it did help to create a huge physical infrastructure which was remarkable because it made it possible to think of consolidation on this strength alone. The spread of banking to remote corners actually set the bricks that could be utilized effectively for other development activity. Even today, we are talking a lot of inclusive banking which would not have been possible without the brick and mortar branches that have been created by this system. The concept of banking including savings and borrowing would have been alien to the people especially in the interiors had it not been for this huge campaign led by the public sector banks. The same infrastructure would not have been found suitable for reaching out to the masses, though through technology some of the private sector banks are taking the initiative to take this message across.

THE TURNING POINT

Things changed in the early nineties. India went in for a major structural change in 1991–92 when the economy was on the verge of a crisis and had to seek an IMF loan. The IMF (to be dealt with subsequently) gives loans for restructuring of balance of payments (to be explained later). Liberalization was an obligation and one of the sectors that were targeted was the banking segment. A committee was set up to chart the course of these reforms, which came to be known as the Narasimham Committee. It suggested wide-reaching changes for this purpose.

Some new concepts that earlier were probably only parts of the banking textbook but were never really used in the country, entered the banking lexicon. The first was the permission granted for setting up new private banks in the sense of having 'new banks' coming into the picture. These banks would have to meet the criteria laid down in terms of capital, ownership, etc. and apply for a license, which would be evaluated. They would be different from the existing old private banks and were to be technology driven, though that was not a part of the deal when the licenses were granted. As it turned out, they were institutionally held and corporates were kept out of it to avoid any conflict of interest.

Public sector banks were to go in for an overhaul. Profits were to be important and disinvestment an option. They could close down branches that were not adding value and could also go in for rationalization of staff. These were proposals that could be implemented by the banks in a phased manner. Bank mergers were also considered to be possible in order to improve efficiency. The concept of universal banking was floated where banks could go beyond pure banking and cross-sell products of other financial houses. In short, all efforts were to be made to make these banks profitable entities with a new work ethic being inculcated.

Interest rates were to be freed and banks could determine their interest rates. There was no need for all banks to charge the same rates and one could actually distinguish between two banks. Banks could look at their own income statements and balance sheets and decide on both deposit and interest rates. This was the highlight of the financial sector reforms and was introduced in phases so that the system was not subjected to major changes at one go.

The Committee also had something to say on the pre-emptions that were in existence. At the time of the reforms the CRR was 15% and the SLR was 35%. Curiously, the SLR was kept at a high level so that banks subscribed to government securities, which in turn automatically supported the borrowing program of the government who could run high deficits knowing fully well that these pre-emption levels would ensure that the borrowing came through. It was also debated whether the SLR was a monetary policy instrument or a government fiscal deficit support program.

This was an interesting and challenging position for banks. For every Rs. 100 mopped up as deposits, 15% had to be kept in cash and 35% invested in government securities, which meant a pre-emption of 50%. The government securities market lacked depth and the yields were extremely low. Of the balance 50%, 40% had to be kept aside for the priority sector. This left only 30% or Rs. 30 for the bank to lend on its own discretion, where interest rates were also more or less fixed. Given this set up it was a clear case of financial repression which made it extremely difficult for any entity to be profitable especially if one considered the new accounting principles and prudential regulation which came into being with these reforms. The report therefore had suggested that these pre-emption levels had to be brought down to more moderate levels. The same was said about priority sector lending where ideally, the level had to come down to not more than 10% over a period of time.

MINDSET METAMORPHOSIS

The accounting standards took a turn for the better while being aligned to global norms. This bought in a sea change in the accountants running

the balance sheets of companies. The first change related to income recognition. Interest accrued could not be treated as income earned and would be booked as income only when it flowed in. Automatically, the income of banks started falling quite drastically as only actual inflows was treated as income earned and the profit and loss statement no longer looked too rosy. Banks now had to literally pursue their clients to get them to repay the money taken by them.

Secondly, if loans disbursed were not being serviced on time, then they had to be treated as non-performing assets and such assets had to be provided for. This basically meant that if I lent Rs. 100 to someone who did not service it on time, then I had to assume that the loan could go bad and would have to make a provision for a write-off in the profit and loss account. The time period for non-performance was also defined and made more rigorous with time. For example, if a loan was not serviced for 1 quarter or three months, then it was classified as a non-performing loan. This meant that not only would the balance sheet carry these tainted assets, but the profit and loss account would take a hit as the bank had to make provisions for the non-performing asset, which in turn would affect the profits.

Hence on both the income and expenditure side, banks had to clean up their act. Income tended to get reduced with better 'recognition' norms being followed while on the expenditure side a new element called provisions came in to include bad debts also rather than only 'others'.

Another important innovation that came into the picture was the concept of capital adequacy. The name Basle rings a bell here, where we talk today of Basle II after the Basle I earlier. These are nothing but certain globally accepted norms about capital adequacy and the way in which one goes about calculating the same. What exactly is capital adequacy?

In simple language, the rules talk about the minimum amount of own capital that must be possessed by the bank to support its asset portfolio. A ratio of 9% means that in order to have a balance sheet size of 100, the bank has to have its own capital of Rs. 9. Own capital is loosely defined as equity plus reserves or net worth. The idea is that there has to be some internal support provided by the bank for the build-up of its assets. This ensures the solvency of banks. It also means that if banks want to lend more, then they have to perforce increase their own capital, which can come partly through profits that are transferred to reserves. More importantly, they have to raise equity in the market, which is a challenge. This is so because to raise equity one needs to have a good market value, which meant showing that it performed well. Today, several banks float equity issues with a face value of Rs. 10 and based on their national standing are able to command a premium which goes into the reserves of the bank and helps to firm up the capital.

The Bank for International Settlements (BIS) is in charge of drawing up these prudential norms at the global level and various countries are in different stages of adherence to them. Modifications and discussions have been made on how one calculates the value of assets. Ideally, all assets have to be given weights based on the risk involved. For example, a loan given to a company carries a risk weight of 100%; but when we move over to say cash, it has a zero-risk loss. Therefore, assets of a bank are individually assigned weights to calculate the risk-weighted assets of a bank. Questions have been raised as to whether the risk weight attached to all loans should be 100%. Can an 'A rated company' be given the same risk weight as a 'B rated company'? Probably not, as the risk attached to each of them is different and is based on a certain objective criteria. However, it is still possible that different banks may come up with their own models and would have different levels of abilities to gauge risk. Hence, we could have some common models which banks have to follow or have credit rating agencies to provide the same. Another issue that has come up is whether or not all banks should be permitted to do the same, or whether only the better-run banks should be given this freedom. So, there are discussions as to which banks can give what kind of weights to different assets.

The important thing now is that all banks are moving towards global norms and there is standardization in definitions. Prior to reforms, on account of booking income based on accrual, all banks showed high level of profits, which made comparisons difficult. Now there is a semblance of uniformity in concepts, which is the right way to go.

Other changes have also been introduced in the valuation of investments kept in government paper. Banks need to value them at market prices and book a profit or loss and the RBI has laid down guidelines on how they have to be valued. As mentioned earlier, banks had to buy government securities to maintain their SLR stipulation. But these securities are traded in the market every day with differing values. Banks may buy a security at Rs. 100 but if the market moves adversely, then the value comes down to say, Rs. 98. How does the bank value this security at the end of the year? It can say that it is going to hold it till maturity, but what if it is actually going to be sold in the near future? Therefore, the bank is allowed to keep only a fixed proportion of securities as being 'held to maturity' while the rest, which come under 'held for trading' or 'available for sale' need to be valued at the market price with the loss or profit being booked. In this case a loss of Rs. 2 has to be shown.

Basel II also talks of a better level of disclosures that have to be adhered to. RBI has effectively brought about standardization in the accounting practices and the presentation of information by all banks. The level of

disclosures has been increased as well as standardized so that comparisons can be made and the scope for camouflage has been reduced considerably.

The Indian banking system is hence getting integrated with the global mainstream, which is encouraging. However, the existence of the priority sector lending is a cause of concern because in a decentralized set up where banks have to fight for business and have to show higher profits in order to provide returns to the shareholders, such pre-emptions are antithetical. The Narasimham Committee, as mentioned earlier, had spoken of reducing the limit from 40% to more modest levels but it has not been implemented as yet.

INNOVATIONS AHOY

A major outcome of allowing new banks to come into the picture is that it has brought about a revolution of sorts in terms of technology. In the last 10 years or so, some of the private banks have used technology to win market share and the large number of ATMs and call centers bear testimony to this achievement. Reliance on Internet banking and issuance of cards bears testimony to this revolution that has taken place in the country. The customer really has a choice today not just in terms of choosing the bank that pays the highest interest rate but also the one that offers the maximum number of products. Curiously, the public sector banks and other private banks have taken a cue and one of them has also advertised quite heavily that it was a public sector bank with the maximum number of ATMs in the country.

The introduction of technology however, has not been without a different set of problems. Banks are making us move away from visiting the branches with the fine print in their charge sheets making it clear that customers should be using other avenues. The absence of personal interaction with the banker does not always give the reassurance that customers want. Using ATMs is fine, but what if there is an error? Systems correct such errors periodically and in the interim period there is a lot of worry for the customer. ATMs further have the shortcoming of dispensing only a fixed denomination of notes. For example, a Rs. 1000 note withdrawn in the night may be difficult to use. Besides, queues have only been diverted from the branch to the ATM, which although should be more accessible is ridden with breakdowns and in turn make banking a nasty business.

There are several calculations to show that a transaction through a bank branch is the most expensive followed by the ATM, the call center and finally the Internet. Banks try to migrate their customers to the Internet and have started charging for transacting through other modes. Initially,

the private banks in particular wanted you to transact through an ATM; now you are charged when you exceed a fixed number of transactions. So you are asked to move to the call center where you can have a harrowing time getting through and explaining your grievance. Invariably the customer is given a complaint number and told that the bank will revert in 3 to 5 working days; but you may perhaps not be in a position to wait for that period. There is therefore a need to return to the basics and get the customer in, especially since the focus is on inclusive banking. When banking is inclusive all should be in a position to bank both as borrowers and depositors, which is not always possible with these barriers in place. There is obviously need to revisit these strategies.

The RBI on its part has been drawing guidelines for banking charges and exhorting banks to be more transparent with these schedules so that the customer is aware of them. Very often the temptation of some freebie creates a new customer for a bank, but it becomes difficult to move out of the bank when a debt burden is taken on. Banks today are very aggressive in building their clientele and are pursuing the customer to take on more products. Besides the conventional deposits and loans the products that are offered are debit cards, credit cards, pay direct cards, insurance products, mutual funds products, bill payments, etc. The issue that has risen is whether or not the customer is educated about these products. Very often the customer is lured to a product without knowing the cost implications. The product is offered free of cost for a limited time period after which it is chargeable. The customer may not be aware of it. Also, the costs could be cleverly disguised such as those for credit cards where the interest paid is quoted on a monthly basis and could be phenomenal when annualized. From the bank's point of view the idea is to get the customer used to a certain style of living and then make him pay for it as he becomes dependent on the product. For example, a person using the credit card will find it easy to overspend and then ends up getting into higher debt levels.

What is definitely important here is that the RBI or a bank association such as the IBA (Indian Banks Association) should launch an awareness campaign which educates people about these products. The customer will then not end up having recovery agents threatening him for servicing of a loan he would never have taken but was lured into outside the branch where a smart Direct Selling Agent (DSA) convinced him that the loan was worth taking.

THE MOVE TO UNIVERSAL BANKING

When India attained independence there was only a semblance of a banking sector. However, in order to spur investment and ensure that

growth took place in accordance with the goals laid down in the five-year plans, the need was felt to set up specialized financial institutions that would focus essentially on bringing about capital formation in the country. It may be recollected that in 1956, the second five-year plan had focused on a heavy industry approach whereby the country had decided to invest in capital goods to create more goods. Clearly, for these targets to be achieved funds were required and there was a need to create separate new institutions for the same. These institutions were called Development Financial Institutions (DFIs) or development banks. There were three of them to begin with: IFCI, IDBI and ICICI. The first two were in the public sector while the third, ICICI Ltd was in the private sector.

A distinction was made between the DFIs and the commercial banks; the latter were basically in retail space and tapped individuals for deposits, which were then used for lending purposes. Typically, banks would have to match the tenure of their loans with those of their deposits. Accordingly, interest rate structures were formulated to ensure that lending was possible against a diversified set of loan proposals spanning different time horizons. With the advantage of deposits normally being rolled over banks could give loans for a period of up to 3–5 years. But, in case projects had to be financed there would be an asset-liability mismatch, as capital-intensive projects would typically take at least 5 years to fructify. A bank cannot be borrowing for 2–3 years as deposits and on-lending for 15 years. The DFIs were to take care of this requirement and the system was created for this purpose.

The DFIs raised money at home as well as from the global markets for longer tenures and used them to finance projects. The lenders were mainly government and multilateral institutions such as the KFW, World Bank and ADB. Finance was provided with concessions and the DFIs were able to finance all long-term plans of companies. This also fitted well with the plans of organizations such as the World Bank and ADB who had a commitment to development in countries such as India. By channeling them through DFIs they were able to take advantage of better use of resources as they had little local knowledge of the borrowers and needed institutions to channel these funds. These institutions were sure of the servicing of the loans as their interface was with the DFI, which in turn had the expertise to spread risk across its clients.

There were other institutions created such as state financial corporations and those meant for specific purposes such as housing (HDFC). These DFIs did not face any encumbrance in the form of CRR or SLR or priority sector lending. They were free to lend to any company they wanted to and often operated as a consortium given the size of the loans involved. However, the rates at which they lent money was more or less

coordinated with one another and in line with those charged by the banks. The RBI hence still set the tone of the interest rate structure for these DFIs as they operated on the yield curve set by banks.

Coping with the New Environment

This bifurcation worked well until the advent of financial sector reforms where the concession route of finance was withdrawn and the DFIs had to access the market for funds at market determined rates. This was also a time when India gradually lost its status of being a very poor country, which is what is normally preferred by the multilateral financial agencies when funds are given on concession terms. They had to borrow at higher rates now and lend to companies at competitive rates. This made the business model suspect since they were also accountable to shareholders as these institutions had gone in for IPOs and were partly held by the public (IFCI and IDBI). As it was realized that such lending was not profitable in the long run, there were presentations made to the RBI to convert the DFIs into universal banks. This was more so because ideally they would have also liked to have access to cheap funds in the form of short-term deposits.

Universal banking was not really a new concept in the country. On account of the regulatory set up we have specialized institutions in each financial segment. Hence, while banks were regulated by the RBI and allowed to do only commercial banking, mutual funds have SEBI as its regulator. A bank cannot operate a mutual fund business but can have a subsidiary to do the same; although it could sell such funds as a third party. The same holds for insurance. The SBI for example, was already a universal bank with subsidiaries in other financial fields such as insurance, mutual funds and investment banking. The same logic held for these DFIs wanting to become commercial banks by aligning with their own commercial banking subsidiaries and representations were made to the RBI on these grounds.

The major problems were of course that in case these DFIs turned into banks they would have to follow the rules of banking such as CRR, SLR, priority sector lending and so on. As two of them, ICICI Limited and IDBI already had commercial banking subsidiaries in operation they were able to merge to create universal banks much like what was already being done by the SBI. There was some debate whether the definition of priority sector could be enlarged to include infrastructure but that was not acceptable to the regulator, as a level playing filed had to be maintained. Moreover, the idea of a priority sector was defined with a specific purpose in mind and hence could not be diluted. The major

benefits for these DFIs were in the area of funds mobilization. They are now able to pick up deposits, especially the current deposits, which come free of cost and savings deposits, which come at a very negligible cost. Add to that the fixed deposits, which typically carry an interest rate that is lower than the market rate at which they were borrowing through bonds, and commercial banking surely became preferable.

But What about Long-term Finance Now?

Universal banking has offered a way out for the institutions that were able to make more commercial financial sense. However, there is the question of the availability of long-term finance now for industry. While equity is one route, the debt option could get constrained since universal banks may not easily offer the same quantity given the asset-liability profile. This is an important issue considering that there is a serious paucity of infrastructure in the country where investments of the magnitude of around \$40–50 bn are needed on an annual basis. The debt market in the non-government segment is not really too vibrant to provide these opportunities. Insurance companies that can provide finance have their own internal rules about allocation of funds and end up preferring government bonds. Raising finance for such long tenures is a challenge for the investors and in order to do so innovative schemes have to be devised.

An obvious answer here is the Foreign Direct Investment (FDI) route. This is an attractive route really because it would only mean getting in an extraneous factor to take care of this problem. The other route suggested is to make use of a fixed proportion of foreign exchange reserves to finance such spending. But this can be pursued only for the foreign exchange component because if it were to be converted into domestic rupees the problem of monetization would arise. Further, an individual bank may not be able to hold on to a 20-year loan for the entire period and the solution spoken of today is the use of 'take-out' financing. Here, after every 5 years or so the loan is bought by another bank so that no bank really has the same asset on its books for more than a fixed period of time—which could be five years.

THE NEW FAD: MICRO FINANCE

Micro finance has become popular of late and one of the reasons for this has been the according of the Nobel Peace Prize to Mohammad Yunus, who was for all practical purposes one of the leaders in this field. Today if one looks at banking, it is normally collateral based. Collateral means

having an asset against which a loan is given. If one takes a mortgage loan, then the house is given as collateral. For a company it would be machinery, for individuals it could be jewelry or some other asset like a motor vehicle, which is held as lien. Therefore, the bank has the security that in case the borrower defaults it could go back to the collateral and sell it and recover the dues. Consumption loans are therefore, not often encouraged by the system and the preference is for an asset which can generate an income stream in the future. Hence, for individuals, unlike the government collateral based lending is the rule though there could be some exceptions made in the form of special occasion loans, but here, too, some form of collateral is required. So, what happens when the person does not have any collateral to offer and yet needs finance? Perhaps this person could start some remunerative economic activity with the borrowed funds for example, selling flowers or even little toys on the roadside. Where can he or she get the funds?

In rural areas in particular, there could be landless laborers or causal laborers. They would not have any asset as such but would need money to do some constructive work like basket-making, weaving, selling vegetables, etc. A regular bank would be apprehensive about lending them money since they have no security to offer. Also, the amount involved would be very small and administrative expenses would be very high. Banks follow what are called KYC or Know Your Customer norms where the banker seeks to know the person to whom the banking service is offered. Therefore, it does not make sense for the banks to be terribly interested in lending to such people, as small tickets do not have any economies attached to them. At the same time it has to make good business sense since there is a large community, which can mean a lot of credit proposals. Besides, these under-banked or un-banked people go to the moneylender who charges high rates of interest. This indicates that it is possible to develop viable economic models for this purpose.

The way out here is to lend to micro finance institutions or Self Help Groups (SHGs), which in turn would lend to these people. Hence, the bank's interface is with the local community or a small institution that is recognizable. The advantage is that the credit risk is addressed quite adequately. These institutions in turn lend to the individuals. The curious thing about the Yunus-Bangladesh model is that it worked. In this case the lending is to a community that knows one another. Therefore, there is pressure to perform because any default means that one gets ostracized from the community, which usually ensures that the default does not happen. Also the society or community could get left out if defaults occur too often. Therefore, these self-help groups or micro finance institutions actually help to finance the micro player. There is no question of collateral nor is there the administrative process of lengthy appraisals and

documentation. There are plain agreements to repay the loans at certain periods of time and the default rate has been close to zero in a number of cases.

The reasons for absence of default or minimum default are that the system lends basically to communities where there is peer pressure to perform. If one person defaults, then the entire community could get excluded from the credit process and hence they would suffer the consequences of the deviance by one member. Therefore, the community makes sure that all members who take credit are compliant. The MFI (Micro Finance Institution) on the other hand is already working closely with the relevant community and also has a fair understanding of the compliant and deviant ones, and would also be charging variable rates depending on the creditworthiness of these segments. Hence, the system works fairly efficiently leading to these low levels of defaults.

Not Really Cheap Money

This model has been persevered in quite a few developing countries where there is this problem of a non-bankable class of people. However, at the ideological level a question raised is over the interest rate structure. Interest rates charged by the MFI could be over 20% and move up to 30%. They are generally above the rates charged to a normal borrower. But, is the risk so high that this segment ends up paying nearly two and a half times the interest rate charged on normal loans? There are arguments on both sides. The non-bankable class is as a rule one which either would not be able to borrow money or would do so from the informal market meaning thereby, moneylenders who may be charging interest rates that are in the range of 30-40%. By providing the same credit at rates of 20-30%, the borrower is really better off as he now has access to money for making a living. Besides, considering that the borrowing is entirely voluntary, the fact that people pay these rates obviously means that it makes sense to the borrower who knows he can service the loan while making a living, which is better than not having the loan. On the other hand the borrower is still paying a usurious rate, which is not a fair thing considering his background.

Micro finance and MFIs have become important today given that the government is talking about inclusive growth, which is the latest buzzword. Inclusive growth is a tacit acceptance of the fact that growth may not be really all-pervasive and that there could be concentration of growth in certain segments. As credit is a very important element of development, this doctrine is getting translated through the use of MFIs and micro credit to reach the lowest income level of society. This probably is the final frontier of banking reach.



Capital Markets

"In the business world, the rearview mirror is always clearer than the windshield".

Warren Buffet

"Successful investing is anticipating the anticipations of others".

John Maynard Keynes

Capital markets evoke the most ambivalent emotions in today's world. We all want them to be buoyant because growing capital markets mean more income for us. They are a symbol of prosperity for the economy and foreigners are forever scanning these markets to decide on whether or not the developing country has 'arrived'. China was probably the only exception that has not had stock markets serving as a beacon of success. Buoyant stock markets are characterized by rising indices, market capitalization, number of scrips traded and number of players. It also creates an extremely hyper-investment class. We all look at the Dow Jones or the FTSE and the NASDAQ indices and greet the increases and decreases with the same amount of interest. What exactly are these indices and what are they supposed to connote?

THE RUDIMENTS

Capital markets are markets where those seeking to distribute ownership raise funds and company shares issued are bought and sold as the case may be. There are essentially two segments to this market, the primary and secondary. The primary market is where companies raise funds by issuing equity or plainly speaking, shares to the public. This could be a new company that wants to raise money by getting the public to own a

part of it or an existing company that wants to expand by selling more shares that are created by statute. The shares have a face value but normally sell at a premium. This means that a share with a face value of Rs. 10 could be sold at a multiple of 10 or 20 based on what the market feels is the value of the share. This market perception is curious because there could be no basis for this multiple. Sometimes a general boom in the market can get a better valuation on the bourse. This is the only way public limited companies can raise their own money. The term 'own money' is critical because those who own the shares actually own the company, which is different from borrowed money. However, the liability of these owners in public limited companies is limited to this investment.

Equity is distinct from debt and there are several theories extolling the virtues of both these means. Equity belongs to the company and is the basis for raising debt. Lending institutions normally look at the capital of the company and permit debt up to certain limits. There are no fixed ratios as such but at times a 2:1 or 3:1 ratios are considered to be prudential – meaning thereby that debt can be two or three times that of the equity.

Fresh capital raised in the market is indicative of the investment taking place in the economy as such funds are normally associated with the deployment of funds for the purpose of creating capital since the debt which is created based on this foundation (equity is a necessary precondition for getting a loan) connotes a lot of investment activity which can be land, building, plant and machinery and so on. But, for interest to be retained in this segment or for the market to value companies, there has to be some incentive for investors. Why should people invest in equity? One reason could be dividend, but if shares are issued at a premium, even a dividend of 100% could mean a very low yield as the return would be at most Rs. 10 on a share, which is the normal face value. The incentive is that the price of the share should go up so that one can sell and make a gain on the capital. This is why we need a secondary market or the stock exchanges, which deal with the purchase and sale of equity that already exists. This means that there is a large class of investors who are keen to make money by buying and selling shares. The purchase can be at the IPO stage or in the secondary market, while the sale is always in the secondary market.

Stock exchange price movements are a barometer of the state of the capital markets. Rising prices of shares are considered to be good and hence called a bull phase where people buy to sell in future. If the opposite happens, i.e. where prices are falling, it is the time for the 'bears' who sell at a current price and hope to buy the share back when the prices fall, thus making a profit. The state of the secondary market is critical for

the primary market and companies find it easier to raise capital when the secondary segment is robust.

Stock markets have indices to capture the mood and in India the more popular ones are the Sensex of BSE and Nifty of NSE. They track the movements of major scrips—30 for Sensex and 50 for Nifty and give weights to each of them. In a way they are a summary average of the market capitalization of these companies, which account for most of the volumes on their platforms. One can guess the movement of the moods on these exchanges by looking at the movements in these indices. There are certain sectoral indices that are drawn up to capture the general price movements of shares in these sectors. There are hence banking, engineering and automobile, etc., indices that are supposed to capture conditions, which affect specific industries. These indices give a picture of the fortunes of a particular industry. Hence, an adverse monetary policy announcement on say, stringent accounting norms can drag down the banking index while the overall index may be buoyant at the announcement of say, low interest rates. In fact, the sub-prime episode in the USA caused Indian banking shares to fall. The rationale was straightforward. If there is a banking crisis, then there would be a liquidity problem and in the absence of any signal from the RBI banks could be hit, and therefore, their prices fell. Hence, the same policy can have a variety of effects on different sectors and these normally get reflected in the sectorspecific indices. The sector indices are also useful when one is taking a sectoral investment decision directly or through a mutual fund, which directs the resources towards specific sectors.

THE MAIN DRIVERS

What drives share prices? This is an important question because it evokes a range of answers. Keynes would have said that it is the animal spirits that drive them (maybe that is why we have 'bulls' which represent optimism and 'bears' which denote pessimism in the market). Another view is that it is the general economic environment. There is also a view that intra day news affects the indices perceptibly.

Let us look at the economic angle first. Typically, growing GDP, low inflation, strong exchange rate and steady foreign inflows should provide positive signals for the market. However, most of these indicators do not change every day and do so only periodically. In the long run the two should be related because the stock market has to on an average reflect the economic performance of the country or the sector as the case may be. Further, when GDP is up over a quarter, the Sensex could either

keep going up or move down during the period. Hence, this is not a convincing answer. Quite a bit of econometric work has been done on this relationship and it is generally felt that economic variables can explain at most 40-50% of variations (meaning thereby the coefficient of determination or r-square that was mentioned earlier) in the stock indices. The balance has to be certain extraneous factors.

Political news, floods, droughts, terrorist attacks are some factors which affect intra and inter day stock price movement. This is significant though the amplitude of these effects could vary from a couple of hours to a few days. They never explain sudden changes in the direction of movement of stock indices. Some of the idiosyncratic instances can be quoted here. The National Democratic Alliance (NDA) government in India had lost the elections in 2004 when the India shining story was being heard from every quarter. Evidently, economics does not matter at times. The share prices were booming days after the terrorists had bombed a part of the Bombay Stock Exchange way back in 1993. News of the sub-prime lending crisis in 2007 affected all share prices rather than only the banking and housing company scrips, which logically should have been the case. News that the nuclear deal with the USA could bring down the government drove down the index considerably in August 2007. Any move, such as controlling the flow of Participatory Notes (PNs) in the stock markets affects sentiment adversely while news of lower interest rates can buoy the markets. Frankly, most of it is difficult to figure out because these impacts are visible only for a certain period of time. Subsequently, the market goes back to its normal functioning. Stock prices are generally supposed to follow a 'random walk' where the best guess of the price movement tomorrow is the movement today. This probably explains how a run is maintained in these markets.

An ex post rationalization of the indices being resilient to some of these movements is that the market buffers in a lot of this information before hand, so that when an event happens it no longer affects the index. Markets are hence forward looking. In fact, often the theory used here is the 'efficient market hypothesis', which says that market prices if efficient, take into account all information that is available and relevant. This sounds plausible because the market is generally looking at all possible scenarios for all sectors as well as the country as a whole and price conjectures are based on these factors. Further, after events happen the effect does not last for more than a day or two because it is no longer a concern. Uncertainty in an event affects the movement of the index but once it is known, it gets embedded in the price and the market behaves as if it is business as usual.

WHAT DRIVES THE SHARE PRICES THEN?

Share prices are driven theoretically by the same economic factors of demand and supply. If demand for a scrip is higher than the supply, then the price will move up. Alternatively, when large funds withdraw from the market and start selling heavily, prices come down sharply. The demand for any share price on its part is driven partly by fundamentals. These include the current performance of the company and the 'expected performance' in the coming quarter. If there are any policy issues that could affect the performance of the company in the near future then the price movement is affected by this news. Examples of this news could be the easier import or export of the product or the emergence of a competitor or news of a crop failure where the crop is used as an input in this industry. At times, the announcement or expected announcement of a merger or a takeover could affect the share price depending on the way the market perceives the value of the company moving on account of this move. The same holds for some dividend announcement or even plain profits. Progressively it has been observed that news such as mergers, rights or bonus issues could have a bullish impact on the share price.

Another factor that is often quoted as being an investment 'essential' is the P-E ratio. The price-earnings ratio is simply the price of the company share in the market divided by its profits or earnings per share. The experts will talk of an ideal P-E ratio of 15 or 20. Theory says that as markets grow all share prices have a tendency to move asymptotically towards this level. Therefore, if there is a standard of say, 20 for the P-E ratio and the earnings per share (net profits divided by number of shares) is 10, then the share price must move up until the P-E ratio touches 20 in order to be properly valued. So, deviation of the actual price from the one justified by the P-E ratio can be used to take investment calls. Low P-E ratio calls for bullish conjectures while a high one could be bearish. This is putting it very simplistically; there are in fact extremely complex models, which will fine-tune each of these components further. Broker firms make a lot of money using a variety of models including technical analysis, which in its rudimentary form makes projections based on past data movements only! And this has been proved to work, which is quite amazing.

The second set of elements that affect share price movements is the behavior of institutions. Here, the Foreign Institutional Investors (FIIs) and mutual funds are critical. The FIIs or portfolio investors are basically foreign institutions, which register themselves with SEBI and trade in shares and debt (to a limited extent). This form of investment has a

profound impact on the share prices as they are big players and valued for the same reason. They have large sums of money to invest and even though their total participation would probably not be more than 10–15% of the total volumes traded on the stock exchanges, they guide decisively the overall mood. FIIs are known for their experience in this field and being global operators are very well informed about global developments and take them into account when making investment decisions. In share markets, there is always a herd mentality. You will always have people selling or buying all together and they will invariably be following a leader who could be these FIIs or mutual funds. Hence, these FIIs are very powerful because of their credibility factor. They have global experience and knowledge and take decisions based on intensive research. Therefore, all their investments must make sense and the rest of the investors follow suit.

But this does not answer the question as to why these FIIs come to India. They evidently see a great amount of money to be made which can be used to pay back their investors. They move to markets where there are opportunities. If a market were overvalued, meaning thereby that the prices are already too high, then they would not find them attractive. Typically, emerging markets are the ones that have these opportunities and therefore their radar is focused on them. They also look at the returns on alternative instruments in other countries. Sometimes the level of interest rates in the developed countries could be important. Higher interest rates in the west could make them invest more in these countries rather than in equity in the developing countries. Also, they may divert funds from India to Thailand or from Hong Kong to India. At times they may simply start withdrawing their funds from the country as the calendar year comes to a close as they need to pay dividends to their own investors or close their accounts and show profits. There are trends that indicate that these funds move out as we near the year end which is generally their accounting year.

Therefore, their actions are based on profit motive and risk diversification. Their portfolios are balanced well to ensure maximum returns and their withdrawal cannot always be interpreted as a diminished faith in the market. In fact towards the end of the calendar year, they may tend to sell in order to make money to pay their investors back home and such a trend does not mean that they are withdrawing from the market.

The third set of factors hinges on the mutual funds. They are also large players who invest in fresh issues as well as the secondary market. They also invest in debt instruments and aim to maximize returns for the investors. They too guide markets and have their actions scrutinized by

the other investors especially at the retail end. In fact, mutual funds are the most preferred medium used by retail investors for investing in the secondary market as it is assumed that they have superior knowledge of the conditions. They provide superior returns to investors over a longer time frame and come with different approaches: equity, debt or balanced depending on the risk appetite of the investor. Typically, the investor invests in the units of a fund, which is invested in a diverse set of company shares. Trading takes place regularly and the net gains are redistributed to the investors. The values of these units are reported as the Net Asset Value or NAV, which is the equivalent of the share price seen in the business pages of newspapers. They are convenient for individuals because by spreading their portfolio, they are effectively able to diversify risk, which individuals may not be in a position to do.

Hedge funds have become important these days where they are not really regulated and while their motive is to hedge they could end up moving prices in a single direction rather than stabilizing them. Another category of investors who have become significant players is the ones who invest through what is called a Participatory Note (PN). PNs are issuances by registered FIIs or funds to overseas investors whose identity may not be known. Rather than registering as a FII and operating on the Indian bourses, they invest through these PNs. The Indian regulators are trying to regularize such inflows by making it easier for direct registration.

Last of all are the investment banks, which like FIIs, mutual funds, broker firms, etc., provide a lot of research reports giving market calls. These entities are the ones to watch out for as they are constantly asking you to buy, sell or hold on to certain scrips. This may sound all right, but often their recommendations could move markets as a large proportion of investors may start buying a scrip because an investment bank, that too a foreign one, has recommended it. This becomes a self-fulfilling prophecy. If all of us think that the price of company 'A' will rise and we all start buying the scrip, then on the sheer force of demand the price would actually move up thus vindicating the bank's recommendation. This has raised the issue of governance especially so when these banks are also associated with a company's public issues. They would naturally tend to give a favorable recommendation for these companies which bring to the forefront the conflict of interest that lies with such an entity—as a merchant banker and as an investor.

In fact, these institutions have become fairly controversial of late since they are the ones that help companies to raise capital and also provide investor guidance. There is a conflict of interest here, which has sought to be separated to ensure that the best corporate governance rules are

followed. These banks do tend to give exaggerated investment signals for these shares, which they help market.

Capital markets are hence an integral part of the market and provide capital for investing companies and competitive returns to investors. They definitely give a robust picture of the country either for the right or wrong reasons. But, from the point of view of the company it becomes easy to raise money in case the market is doing well as investors get to share the benefits. It also helps in better valuations especially when there is M&A activity around the corner. Today, several companies are merging or taking over others; and the stock market performance forms the basis for valuation of the company.

DISINTERMEDIATION

Capital markets are significant from the economic perspective as they herald a new form of financial process called disintermediation. Banks as we all know are financial intermediaries who pick up deposits from the public and use them for lending to industry in particular. They do so for a profit and incur a cost in the process, which is the cost of intermediation. If one looks impassionately at this process, then it appears that these costs need to be kept to the minimum or else there is a burden that is being imposed on society. Banks can however claim that they are providing a service for society, as an individual on his own is not in a position to lend to a company or a farmer. He is not sure if the borrower is credit worthy and is in a position to repay the loan. In case he is not able to do so, what is an individual to do? There is, what the economist Joseph Stiglitz coined, the existence of 'asymmetric information' about the credit worthiness of borrowers. This makes a strong case for having intermediation. Further, the fact that a borrower can default creates a 'moral hazard', which an individual cannot bear by himself. Therefore, he needs to put his money with the bank.

The bank/financial institution, prima facie, can do a good job of it as it has access to more information about borrowers and has the ability to do due diligence. This implies the demand for requisite skills to do the same. Further, it spreads this risk across a wide portfolio and introduces measures to mitigate the credit risk involved in lending. To top it all, it has legal recourse and can find it easier to succeed than an individual can. Lastly, in case there is a loss due to account failure it can be absorbed given the financial size of a bank relative to an individual. Therefore, banking makes sense right away for a person with surplus funds.

However, with the booming of the capital market, the individual really has a choice. He can either deposit his money in a bank or invest in the capital market. If he is not savvy enough to invest in shares, he simply goes in for mutual funds, which normally give returns of 10–20% over a period of say, 10 years. In fact, the skewed tax system in India exempts dividend received from taxation as it is being paid after tax, while interest received is taxable as it is an expense of the bank on which it pays no tax. Bank deposits in India will at best get you to a double-digit number and that, too, only occasionally. There is a choice here and as funds move to this segment, there is the first sign of disintermediation. In fact there is one theory that says that if one actually keeps a time horizon of 10–15 years, which one does in say, a government provident fund, one cannot possibly lose and the return will be comparable at worst to what a bank deposit would have yielded!

The consolation for the banks is that so far in India at least, we have different classes of savers and the one who is a traditionalist and prefers the bank deposit will rarely pull out his money and put it in the capital market as he is risk averse. However, to the extent that incomes are growing rapidly and a new investing class is emerging there are significant funds moving to this segment, especially the mutual funds industry.

Now, we can look at the borrower's perspective. If one wants to borrow money, the option is to go to a bank and raise a loan by fulfilling the criteria laid down by the bank. She could end up paying as much as 15% interest on a loan which has cost the bank only 6-7% (a large share of deposits are in the current and savings bank accounts where interest paid is nil and 3.5% respectively). There are two alternatives here. The first is to go for equity, but that would mean taking a chance; though if the timing is good, the premium that can be leveraged can be substantial. Also raising equity would mean changing the holding pattern of the company and hence ownership for which a board approval would be essential. The other alternative is to raise debt through bonds or debentures. The irony is that if the company is good, it may raise money at say, 9-10% in the form of bonds and have the same banks buy them, albeit at a lower price. But there is a catch here. In order to be successful here one needs to have a rating from a credit rating company. All debt issued by any company needs to be rated by an established rating agency so that the potential subscribers have an idea about the company they are lending. This is one way of bridging the information asymmetry that was discussed earlier where the company's health is evaluated by a third party with no interest, in a dispassionate manner.

THE RISE OF CREDIT RATING AGENCIES

When a company wants to access the debt market, it has to necessarily get a credit rating from an established credit rating agency. The agency looks at the performance of the company and its future prospects, and based on certain models provides a rating as to the ability of the company to service its debt. The company is not rated but the particular issue of debt is. Based on this rating, which normally go with the nomenclature of AAA+, LA and so on, the company can access the debt market and if successful, can borrow money. The rating in short tells the potential investor of the likelihood of the loan being serviced and repaid on time based on a sound model that has worked in the past. There is however no liability on the rating agency if things do not go well and their ratings are at best their neutral opinion of how the debt will be serviced. So, is there any pressure to perform on the part of the rating agencies?

The rating agencies all over the world have come under considerable criticism in the past for three reasons. The first is that they have seldom been able to anticipate a financial crisis. The Asian crisis was never really predicted; as was the case with the sub-prime crisis of 2007 where they were unable to distinguish between the good and the bad in the process of securitization. But the rating agencies have not accepted their culpability in giving an incorrect picture and have defended their stance on the ground that their ratings are statements of opinion and not recommendation. The second is that often these agencies under the force of competition may end up giving a better rating since if a rating company is known to be too strict, then the borrowers may go to a place where there are fewer hassles. Thus, there is a conflict here between being fair and the pure commercials of a viable business model attached to such ratings. The third is that often the same criteria are used for different instruments, thus adding to the confusion. Bloomberg has reported that corporate bonds rated Baa, the lowest by Moody's, had a default rate of 2.2% over five-year periods between 1983 and 2005. CDOs (Collateralized Debt Obligations) with the same rating suffered five-year default rates of 24%. This leads to quite a bit of apprehension when viewing these ratings. Nevertheless, rating agencies have played a very important role in the last 15 years or so in bringing a semblance of order.

How honest and competent will a rating agency be? This is a tricky question because there is always a conflict of interest inherent in such a business. All rating agencies are profit oriented and have an incentive to expand their business. There are the classic elements of game theory here, where each agency does not know the stance taken by the other. They are trying to guess as to how the other agencies approach this

issue. If agency A is strict and B is not, then it makes life difficult for A as business would move to B. Therefore, there will be an incentive to become liberal competitively. This in turn may actually make the entire system of rating rather weak and flimsy, which was to begin with the main concern for setting up these institutions. Further, should there be just one rating agency or several? Ideally, efficiency would dictate that we start with many and the fitter ones only would survive. In case there is a government sponsored rating agency it would be neutral, but there could be the inescapable forces of lobbying, as there always exists a symbiotic relationship between business and politics.

The other alternative is to have these rating agencies rated. Here, there can actually be objective criteria where an independent agency actually scores the agency on a scale based on success rates. Then the rating agencies will have to be right most of the time and the one that is more wrong or less right will have to probably accept a lower rating. However, the problem here is that the agencies do hedge their positions by taking the stance that their rating is based on certain parameters and the final performance of the company or country could be based on other or changed parameters that were not considered in the initial rating; and hence they cannot be held responsible.

Rating, not only of companies but also of countries, has become very important today. Companies can never be better than the government; so companies have to be satisfied with the rating received by the country. At times the company may be very good but the policies of the country would go against it because the country risk is rated low. There has also been some debate over whether the international rating agencies such as S&P and Moody's have biased rating models for countries. Look at India: the economy has been growing rapidly since 2000 with stable inflation and overall economic growth and development. But the rating agencies had always considered India to be below investment grade for most of the time. The reasons given have been that: India is closed to foreign investment, labor policies are skewed which makes India a risky place and privatization has not made much progress. Now, there are good defenses for all these three points. FDI is an internal policy and just as it may be difficult for some countries to enter our financial services sector, which is probably the closest that comes to being restrictive, the same holds for Indian firms that would like to get into some of the developing countries. Stringent labor laws should always be looked at in terms of the background of a country. A labor surplus economy has to make these laws more realistic to eschew a social crisis. Laws cannot be liberalized so that foreign entities can operate on a different footing in the country. Lastly, privatization is an internal decision over which rating

agencies should have no control. Besides, these factors do not make our country any more risky in terms of servicing of debt commitments. Hence, there is bias against developing countries (which will be discussed later in a more illustrative manner when the issues of the WTO and globalization are discussed). In fact, the USA with a current account deficit of close to 5–6% of GDP poses theoretically the greatest credit risk to the world! Therefore, while some of the rating agencies are held in very high esteem there may be a tendency for a bias coming in especially where developing countries are concerned.

Coming back to the theory of disintermediation, invariably the betterrated companies are able to access this market and they would also be the ones who could get loans from banks at their Prime Lending Rate (PLR). The smaller ones such as farmers, small-scale industry, traders, professionals, etc., would continue to access banks through the regular route. Therefore, the Indian financial structure is still not mature enough to facilitate disintermediation and the banking system along with other intermediaries such as the other financial institutions, non-bank financial companies, cooperatives, etc., still have a very important role to play. In developed markets where there is less financial repression, the banks do operate actively in the capital market and end up being the subscribers of this debt.

The discussion hence shows that while capital markets are an integral part of the Indian economy and a very important indicator of economic buoyancy, it has not yet reached the stage where it could actually replace the system of financial intermediation. In fact, while the equity segment has boomed, the debt segment hasn't. Banks have restricted direct access to the equity markets, which makes them small players really.

Banks would hence continue to play a very important role here especially since the typical borrower is not always the corporate and all borrowers are not amenable to standardized evaluation as is the case with agriculture, weaker sections, micro borrowers, etc. While there have been phases when capital markets have dominated the vision of individual savers, the tendency has been to move back to the banking system where returns are low but assured. While this will change with the new generation it will be a gradual process.

EMERGENCE OF DERIVATIVES

Derivatives have been a more recent phenomenon in the country where instruments such as futures and options are traded in the market. They are popular on the stock market and also now in the commodity markets and going ahead probably also in the currency and bond markets. Basically, these are instruments which are based on a physical underlying such as a share or a commodity where trading takes place for delivery at a fixed point of time. These instruments are very useful for hedging purposes as one can cover risk in the market. A person who is buying a physical share today can sell in the futures market at a predetermined price prevailing in the market and thus hedge the position. Derivatives trade at times at a multiple of 10 in the capital market.

The commodity markets, which were opened up in 2002–03 allow trade in futures of commodities, which serve as the underlying. Hence, one can buy cotton at a market predetermined price say, 2 months down the line and have the commodity delivered too. This is distinct from an option, which gives the buyer the right but not the obligation to go through with the transaction in return for a premium. In this example, a textile mill purchasing cotton can get into the transaction at a price of say, 100. If on the settlement date the price is 90, it can forfeit the premium to be paid for the option and not go ahead with the contract. Hence, there is an advantage in using these derivative instruments.

These derivative products can be stretched to other financial futures such as interest rates and foreign currency. In fact, these derivatives trade at much higher multiples than the cash segments. They have become progressively important in the financial markets and not without any controversy as their role in stabilization or destabilization of the markets has also been debated quite animatedly.



Inflation

"Inflation is not caused by the actions of private citizens, but by the government: by an artificial expansion of the money supply required to support deficit spending. No private embezzlers or bank robbers in history have ever plundered people's savings on a scale comparable to the plunder perpetrated by the fiscal policies of statist governments".

Ayn Rand

According to Milton Friedman, inflation is taxation without legislation. Inflation is probably the most talked about subject in the field of economics as it affects all our lives. It is both easy and difficult to understand—easy because everyone can identify a price rise, but difficult because the causes for this increase may not be that obvious and the interpretation of the numbers may be tricky. It is critical because it dictates the course of monetary policy and has a bearing on interest rates, fiscal deficit and growth. It is very sensitive to political needs, because a high number can lose a government an election, and the inflation number hence transcends the imperatives of pure economics. Its components are more important because the government feels morally obliged to keep some of them down so as to placate the masses which may result in inappropriate policy responses.

Inflation simply connotes the increase in prices and is expressed as a percentage over a comparable stated time period. As a layman, one would not tend to believe these numbers because you personally think that you are paying much more than what the government is saying. Especially so since at the market place you may have paid over 10% more for your groceries, but the government or the newspaper is declaring that inflation is under control at 4%. Actually, both may be right because it is the way one looks at it. Further, inflation is defined and interpreted in different ways across countries and this adds to the confusion. Yet, there are some standard concepts that could be used for the purpose of comparison.

THE TWIN ISSUES

There are two aspects of inflation that need to be understood. The first is the causes of inflation and the second is the presentation of inflation numbers. The first is important as it explains why prices are rising and why the government or the RBI is doing what it is. The second is critical because inflation numbers are some of the most malleable numbers to present and can look good with the use of some tact. It is actually amazing as to how numbers can be made to look different depending on the purpose of the exercise and the adage that statistics always lie can never be truer than in this case. One can choose between indices or look at particular components, or just keep changing the points of comparison as different scenarios emerge based on the assumptions made. And all these methods are theoretically sound and correct and can be used by the analyst based on one's preference.

There are basically two broad concepts of inflation depending on how it is engendered. The first is demand-pull and the other cost-push. Demand-pull inflation is a case where prices move up due to a serious imbalance between demand and supply of goods caused by too much money chasing too few goods. Here it is assumed that people have a lot of money, which they want to spend and as supplies are limited, an increase in prices is a must for equilibrium. The basic assumption here is that the optimal capacity utilization level has been reached and further production requires more investment. Normally, once capacity utilization reaches the 85–90% mark, signals are sent indicating that the economy could be getting overheated. Investment fructifies into output only with a lag, thus making way of higher prices. A way out is to import goods that are in short supply but this could be an expensive affair when other duties and taxes are added. This is the way in which the monetarists also spoke about this phenomenon.

Demand-pull inflation is the brand of inflation we are typically talking about when we speak of monetary policy. Central banks look at demand-pull inflation and then decide as to how they should tackle the growth in money supply to restrict consumption and investment by controlling growth in credit. This kind of inflation is usually seen in the manufacturing sector when there is an upsurge in consumption. Normally, one may not consume more primary products like cereals, pulses, vegetables, etc., when one has more money. As we demand more consumer goods, there is demand for intermediate, basic and capital goods too. If these goods are not available in good measure, then inflation is the result. Therefore, demand-pull inflation can be traced to specific goods in this sector. But there is a theoretical catch here.

Consumption could be at the retail level where we borrow more money to spend like the use of credit cards or mortgages. The other is when industry in particular borrows more to make investments. When interest rates are raised or credit growth is squeezed industry receives less funds in quantitative terms and at a higher cost. This can affect the rate of growth of investment at a time when investment is needed to produce more goods to match the excess demand that has built up. Any credit squeeze automatically leads to a slowdown in the economy as it heads towards a recession if the intensity is high. In a more contemporary context, when one reads about the Federal Reserve being responsible for a recession, it is precisely this line of argument being used wherein higher rates ease out the investors leading to an economic slowdown. Therefore, demand-pull inflation is serious business for the monetary authority.

Keynes believed that this kind of inflation could take place only after full employment was reached and could not really exist when there was unemployment. The monetarist view is that even without full employment being attained, inflation was possible through this route and the Phelps-Friedman theory explained earlier becomes relevant here.

The other way in which prices move up is cost-push inflation, which is the brand of inflation that has often been misread by central banks. Costpush inflation is the direct impact on prices due to supply shortages. If there is a shortfall in the production of wheat, then inflation will be high for the relevant commodity. In agriculture, since production takes place in two seasons in India, there is a tendency for a group of commodities to witness higher or lower production depending on the monsoon. Further, it has been noticed that agricultural production has followed a cyclical trend; rising in one year and falling the next one. This has meant that as long as there are carry-over stocks, inflation is under control. But once stocks fall, then there is a tendency for prices of agricultural goods to rise. Further, these prices are also influenced by global factors where shortages elsewhere have similar impact on domestic prices. In addition, if the product is an exportable, rising global prices make exports attractive which in turn diverts the produce from the domestic market thus creating a shortage leading to higher prices.

The other route for cost-push inflation is the administered price route where the responsibility is squarely on the government. In India the government decides the prices of petroleum products. Every time the prices are increased, inflation rises. On the other hand, as has happened in the last two years, the international price of oil has gone up but the government has controlled the increase in prices, thus moderating inflation. In a very contemporary context, the increase in world price of oil by 30% did not lead to a similar increase in the domestic context as

the government chose not to raise prices and absorbed the shock through the system. Here, the government has a direct influence on the movement in prices and often intervenes by regulating the prices when necessary. This is done by lowering prices directly or tinkering with the duties and tariffs on these commodities. Or in the case of oil, the oil processing companies bear the loss and are compensated for by the issuance of oil bonds on which interest is paid by the government.

The factors leading to inflation need to be understood clearly by the central bank because monetary policy can impact inflation only in case there are excess demand forces. If inflation is caused on the cost-push side by say, a rise in the price of crude oil and petroleum products, then monetary tightening can be a disaster as it can lead to a situation of stagflation where the economy would be compressed with inflation still remaining high. Therefore, when prices start to move up it is essential to dissect the components and find out which components are rising and their causes. There is hence, no single solution to such changes in prices.

There is another set of factors which impacts inflation called 'structural inflation' which generally holds for countries in transition. These countries tend to have higher inflation as there are structural deficiencies such as shortage of infrastructure, which tends to push up prices on a regular basis. Cost of capital tends to be high and also very sensitive to demand for the same reason. This can be one reason why inflation rates tend to be closer to the double-digit mark in developing countries without causing much alarm, while the developed ones have a much lower level of inflation.

HOW TO PRESENT THE NUMBERS?

What Do You Want to Show....?

The interesting aspect about inflation is that it can be presented in different ways to provide different scenarios. There are two sides to this presentation – the index to be used and the choice of time points. The first refers to the index we are using. In India we use the Wholesale Price Index (WPI) and the Consumer Price Index (CPI). As the names suggest, the wholesale prices are really the producer prices and not the ones that affect us as consumers. The consumer prices are more relevant for us.

The WPI refers to the prices at the wholesale level and is calculated based by indexing the prices against a base year. The base year is chosen as one when conditions were normal so that subsequent indexing is not out of place with the choice of base year. Several commodities that were

important in terms of value are included and given weights based on this value. Goods are segregated into primary, fuel and manufactured products. Each component has a specific weight based on value and the composite index is created this way. The problem with a base year index, which is not changed too often, is that any alterations in the basket of goods which is consumed at either the wholesale or retail ends would get left out. For example, within the category of consumer goods, handheld sets did not exist a decade ago. If the index is based on 1993–94 being the reference year and we are looking at inflation in the year 2006–07, then if the price of these phones came down it would not get reflected as it does not exist in the basket of goods.

Now, wholesale prices are the prices that are paid at a stage prior to when we purchase goods in the market. Thus, retail costs and margins are not added. This difference could be high. Further, quotes for different prices are obtained from different sources such as the market places for agriculture, product associations and companies, and so on. Again, as these goods are dealt in wholesale markets they do not include services. If a country is service driven, such as India, with only 40–45% of the GDP coming from the commodity sector, one can conclude that the WPI is definitely an understatement of prices on both these counts. One must therefore recognize that the WPI has a limited purpose of reflecting the producer prices at the end point, as its domain does not extend beyond.

There is evidently need for an alternative inflation measure to reflect what the common man pays in the market. The government uses the consumer price index, which is what the concept is in other countries. Consumer prices matter since they reflect the actual cost of living. Besides, the WPI includes items such as fibers, oilseeds, metals, chemicals, etc., which are not part of our consumption basket. Therefore, to link any inflation adjustment with the WPI would be misleading. The CPI is a better measure where prices are reckoned at the consumer or retail level. But then, which retail level are we speaking of? There are two issues here. The first is that prices vary in different places. Thus, the price of wheat in Assam would be different from that in Delhi and Kerala. Intuitively, it can be seen that there is need to have CPIs for different cities or towns, which of course cannot be exhaustive. This index varies from city to town to village. All prices cannot be captured and the government can do so only for some centers.

The other issue is, what should be the composition of the consumption basket. Different types of people consume different sets of commodities. Transportation is important for industrial workers but not for agricultural laborers. The same holds for housing. The physical basket of goods consumed by different classes of people varies and while liquor consumption

may be popular among the industrial classes, it may not be so in the agricultural sphere. Therefore, there is need to have different sets of indices which contain different baskets of commodities for various classes of people based on observed consumption patterns.

So now there are 'n' number of indices starting from the WPI to CPI for various classes of people as well as centers. The CPI is more advanced than the WPI because it is more specific and also includes services, which are left out in the case of the WPI. There are of course, all India numbers for these indices and the one used in India is the one for 'industrial workers', which tends to show the highest variance and is representative of metropolitan India. There are other indices for agricultural workers and urban non-manual laborers and all these indices would move in different directions and could mean different things to different people. Each of these indices has weights attached to the components. Higher agricultural prices would mean harm to industrial workers though agricultural workers will be better off as they are recipients of agricultural income. Hence, when talking of consumer prices it is essential to make a pointed reference to the class of people we are referring to as there are asymmetrical consumption patterns in the country and changes in prices of some goods may affect consumption in villages though not in towns. Similarly, rural workers will not be affected if the price of education goes up.

Secondly, besides the choice of index, the periodicity of the data finally matters. The WPI follows a weekly reporting pattern, albeit with a lag of 2 weeks while the CPI follows a monthly reporting pattern with a lag of around 2–3 months. Therefore, the WPI is used for reporting inflation in the country. But still, relating the inflation rate to the context of time could be confusing as the rate measured and reported today could be referring to an earlier period, while the prices in the market can be moving at a different rate presently. So, you may be told that the price of onions have gone up by 20% today (which is the reporting for a lag of 3 weeks) while the market place may have a different story to tell.

How does one present the increase in prices of an index, be it the WPI or the CPI? Indices are available every week or month depending on whether it is the CPI or WPI. There is a tendency to follow a point-to-point inflation concept. Here the week ending say, December 31 is compared over the week ending Dec 31 of the previous year. Basically, the two indices for these two-week points are compared. This is a biased indicator and is influenced by the low base period or high single movements due to a normal phenomenon like say, a harvest. This becomes starker if the end point one chooses coincides with the harvest period or just before the harvest season. There would tend to be natural

swings especially for agricultural commodities where prices rise before the harvest and fall when the crop comes in. But, this is normally reported on every Friday by the government and can cause a sensation. Also a dip or rise in the earlier point would further blow up the index in the current context, also called the base year defect.

The more accurate way of showing inflation is through an average of weeks of months. This method actually takes the average of 52 indices for the 52 weeks of the year and compares the same for the last year. This way one can even out the movements in prices at specific points of time, which is probably the right way to go about it. Also we are able to separate the relevant financial years so that we know the 'how' of it. Further, as inflation indices tend to move over time (except when they are falling) one can see how much the price has increased either on a point-to-point or average basis during the financial year. That is, we can look at the March-end index as a reference point and calculate how inflation has behaved since this point of time.

Hence, inflation numbers need to be looked at quite carefully. The choice of a base year or a point for comparison can greatly influence the picture that one wants to present. Normally, there is a difference of about 100–200 bps between the WPI and CPI inflation; and within CPI inflation there could be a difference of as much as 300–400 bps between different inflation indices. Higher power costs can push up the CPI for industrial workers but not affect agricultural laborers. A point-to-point inflation comparison may show that inflation has risen or fallen during any time period but the same when averaged can make the picture look more moderate as has been in India's case in the last few years. Here too, there can be a difference of between 100–200 bps in the same direction between a point-to-point and average index comparison.

IS THERE A BENCHMARK?

This is a moot question because the answer is subjective and depends partly on the kind of economy one is speaking of. Typically, a growing economy would be characterized by higher inflation. This is so because of the leads and lags involved in the production process with investment decisions of today fructifying into output with a lag. This holds when investment is staggered and savings are sparse. Therefore, developing countries tend to display higher levels of inflation than the developed ones due to these structural factors.

However, the curious issue is that developed countries get worried when inflation crosses 2%, while India is worried about 5% and other

developing nations are quite satisfied with a single-digit number. But, the world is usually referring to the CPI while we are talking of the WPI, which is normally 100–200 bps lower the former (CPI). That is so because of differing standards set by different monetary authorities keeping in mind the growth in income. When the size of the GDP is large, a growth rate of 3–4% in GDP is impressive and satisfying. Therefore, an inflation rate of 2–3% appears tolerable. When it comes to developing countries the picture is different—GDP growth tends to be higher e.g. 9% in India, 10% in China and so on. With this kind of growth the inflation rate also rises to levels of around 5% and is considered to be compatible with absolute GDP growth of over 12–13%. The western countries normally would like inflation to be below 3% with the preference being for 2%, while most developing nations would not be too unduly worried with an inflation rate of around 5–6%.

WHY DO CENTRAL BANKS TARGET X% INFLATION

"By a continuing process of inflation, government can confiscate, secretly and unobserved, an important part of the wealth of their citizens."

John Maynard Keynes

Inflation exists in all countries and while the level of tolerance is different depending on the overall circumstances, a pertinent question raised is why the central bank cannot target a zero inflation rate. After all, if we do not want prices to rise by x% and let us assume for the purpose of argument that it is possible to steer this rate to the desired level based on policy measures, why can't it be 0%, even though it may never happen.

The first reason is that prices are bound to rise because there will always be several demand-supply mismatches in the economy. There can never be a simultaneous equilibrium in all markets considering that information symmetry is impossible. Secondly, a bit of inflation is a must to spur economic activity. If prices were theoretically supposed to remain unchanged then there would be little incentive for production to become more efficient. For example, if the price of an automobile is Rs. 400,000 and that remains for all the inputs too, then the company can never increase its rate of profit growth. Workers will receive the same wage and will have a problem facing rising prices in other areas. Investment would stop and growth will be affected. Therefore, the necessary condition for investment to take place is that prices should keep increasing. Also it has been observed in India that phases of high industrial growth have normally been associated with rising prices. Therefore, inflation is a must for economic activity to take place.

Lastly, at the practical level the central bank knows very well that prices are affected not just by domestic conditions but also by global factors. Also, as inflation is both demand and supply determined it has powers over only the growth of the demand side factors. This being the case there is a need to define a range of inflation, which is tolerable for the economy beyond which the authority would intervene and repress the market. It indicates that beyond a point the central bank may be willing to sacrifice growth over inflation and would increase interest rates or make the reserve requirements more stringent.

CONTROL OF INFLATION

The measures used to control inflation depend essentially on the posture taken on theory. The Keynesian model does not consider it to be very important as long as full employment is not attained. If full employment is attained then the solution is to simply increase tax rates to cut down on spending. In real life such a measure may not be feasible especially if it is targeted at cutting down spending. More likely people may cut down on savings when tax rates rise as households fix consumption levels.

The monetarist view would be to lower the ability to spend through borrowing. Therefore, money supply is targeted with the focus being on bank credit to the commercial sector. Monetarism prefers this route to check inflation and all central bank governors talk incessantly of curbing growth in money supply to check inflation. But, this works only when there is so called demand-pull inflation. It will not work when there is cost-push inflation. In fact, if there is cost-push inflation and the central bank decides to invoke stringent monetary policy measures, there could be some significant negative effects. Lower credit to the commercial sector will hold back investment plans. This will mean cutting back on growth in general which will simultaneously also mean large-scale layoffs. This leads to the most cumbersome phenomenon of stagflation when all theories fail to provide a viable solution. Stagflation actually queries the tenets of both Keynesian and Monetarist economics as having simultaneously high inflation and unemployment defies their basic pillars.

Cost-push inflation can be controlled either by increasing supplies or direct price intervention. Normally, removing restrictions on imports so that there is a free flow of goods and services across borders eases shortages. The government can also come in and import products especially foodstuffs when there are acute shortages, which happens in India especially when food items are involved. This is pragmatic considering that very often it may not be possible to increase production immediately in the short run especially for agricultural products.

If all else fails or when the cause of inflation is a global factor, then the government can intervene directly through price controls. In India this is seen through administered prices of petroleum products. The government often holds back passing on the full impact of an increase of the landed cost of crude oil by subsidizing the consumer when withholding the prices of petroleum products. As mentioned earlier, the government protects the oil companies through the issue of oil bonds on which interest is paid and the latter enters the subsidy bill of the government which eventually show in the fiscal deficit.

ULTIMATELY, WHAT MUST ONE DO?

As observed across the world there is nothing sacrosanct about these targets and there can be no benchmarks as such. Countries with hyperinflation, as was the case in Latin America in the 1980s, would actually not mind having an inflation rate of 10–20%, while there has been the case of Zimbabwe in 2007 running an inflation rate of over 7500%. Normally, these targets are fixed based on past history as well as the overall growth scenario.

Inflation is hence a very important indicator for everyone around. For politicians it can mean losing or winning an election. It happened in India in 1980, when the government lost the elections on account of high onion prices. The opposition can use this to blame the government for poor governance. For policy makers it is critical because they need to know how this inflation has been caused so that they can accordingly work on it to bring it down. Higher prices due to supply pressures would probably mean increasing imports, which is within the realm of exportimport or trade policy. Suitable facilitation may be needed from that quarter. While the common man may not be interested in understanding Keynes and Friedman, he surely understands inflation as it hits him hard. Also a lot of numbers that are used as evidence of achievement such as income, profits, trade and wages, are scaled down when expressed in real terms or rather adjusted for inflation. Therefore, the number as such is important.

But one needs to be cautious about which inflation rate is used and the exact concept chosen as the difference can be significant leading to varying conclusions.



The External Sector

"The important thing to grasp is that the exchange rate is a crucial part of the mechanism that determines the trade balance without being an independent cause of trade balance. If this sounds unduly metaphysical, consider the following analogy. Think of the US trade balance as an automobile. The exchange rate is not the car's engine—it is more like the driveshaft, with desired capital flows providing the motive power. In other words, changes in the exchange rate play a crucial role in translating changes in desired capital flows into changes in the trade balance, but the root cause of the trade imbalance lies elsewhere".

Paul Krugman

Today the most critical sector from the point of view of global stability is the external account of a country which is also the window to global integration, as all transactions with the rest of the world which impacts the domestic economy enter this sector or account. If a country is living in isolation, this will not really matter, but because of progressive integration of countries it is essential to track what happens in this segment. On account of economic integration, this particular sector can be the conduit for the transmission of globalization, which ultimately affects all the sectors discussed so far: GDP, government, money supply and the RBI, capital markets and inflation.

Trade is a major unifying force as both exports and imports make countries dependent on one another. This helps countries leverage their comparative advantage, which was the basic theory enunciated by David Ricardo in the late eighteenth and early nineteenth century. Countries should actually produce those goods where they have a natural comparative advantage and exchange them for those goods where others have this advantage. Also as boundaries of countries become mere political borders, the economic divide gradually disappears as goods

and services become mobile. This leads to the most efficient situation for all countries. People also move between countries, which entail foreign exchange outflows, and determine the need for foreign currency. Lastly, there is interest in exploring investment opportunities in each other's countries and can be backed by loans reckoned from global sources. There is hence ample scope for interaction with other countries in the world.

THE BALANCE OF PAYMENTS

All these flows constitute what is called the balance of payments of a country. The balance of payments is a summary statement of the foreign exchange position of any country and talks of all the inflows and outflows of foreign currency. This statement is like a balance sheet of a company and has to tautologically always be in balance. Hence, the concept may appear to be some kind of a misnomer because by definition it has to be in balance at all times. But the components matter. Therefore, when one talks of a balance of payments problem for any country the issue that arises is, what was the net effect on the foreign exchange situation of a country, which probably necessitated certain actions. It is hence analogous to the budget statement of the government or a balance sheet or profit and loss account of a company where the debits and credits have to match. The clue is to figure out whether the country was a in a net debit position to begin with or a net credit situation which had to be reversed through conscious action.

To answer this question it is essential to analyze the components of this statement. The inflows and outflows are organized under two headings: current account and capital account. The current account as the name suggests consists of items that are current in nature and not linked to any long-term objective such as investment or savings. It is like the difference between spending for today or tomorrow. There are two parts to this segment: trade flows and invisibles. The trade flows consist of exports and imports which when netted result in a trade deficit or surplus. These are the most important elements because they actually talk of the strength of the goods and services produced in the country as well as the dependence of the country on others' for similar products. They provide basic shape to the overall account and can be called the skeleton. At the accounting levels, these numbers vary from the trade reckoned in any period as they are based on the actual inflows and outflows based on foreign trade. Hence, if a purchase took place in February but the payment was made in April, then the balance of payments record would show the outflow in the following year rather than the time period when the transaction took place. In the Indian context, trade is reported on a monthly basis based on the transactions that are reckoned

while the RBI, in the balance of payments reckoning recognizes them when the forex transaction actually takes place. Needless to say, the two figures never tally as the forex flow could pertain to a transaction two years back.

The other component is the 'invisible account', a terminology meant to denote transactions, which cannot be physically felt. Traveling to a foreign country or incurring an expenditure on education is a current outflow that is invisible. The same holds for services made use of in other countries as well as those made use of by foreigners in the country, which include investment incomes. Any which way, these flows are critical because of their size. Further, often we have Indians staying overseas and remitting part of their earnings to their relatives in the country. This is a major chunk of invisible flows, which helps the country garner foreign currency. Lastly, there are other major earnings coming from the software sector, which includes BPOs (Business Process Outsourcing), KPOs (Knowledge Process Outsourcing) and so on. These industries are typified by Indians working overseas on projects or back office work being handled in the country where the expense is in dollars. All these ventures provide valuable currency to the nation.

The invisible account is juxtaposed with the trade account to arrive at the current account balance. This is a critical element in defining a country's external balance as it reflects the net strength of all current transactions. It tells us more on whether we are spending beyond our means and whether we will need capital flows to finance our consumption requirements. It is usually expressed as a percentage of GDP to indicate what part of our consumption is being supported by foreign capital. A parallel can be drawn to the revenue deficit of the government.

The case of USA is significant because it has been running a current account deficit which has been over 5% of the GDP for the last decade or so. When you spend more than you earn, then you become dependent on foreign capital. The world today is financing the USA's consumption binge by investing their surpluses in US Fed bonds, which are being issued on behalf of the government to support its ostentatious existence. A safe limit is supposed to be a ratio of 4% of GDP and if a country goes beyond this level, then there could be a balance of payments crisis as the country would necessarily have to get in capital flows to support this extravagance.

The Balancing of the Account or Cover Up ... Capital Account

The capital account now comprises components that provide long-term funds to the country. Foreign investment (both direct and portfolio),

borrowings (commercial and otherwise) and bank deposits of nonresidents are the three main sources of forex inflows on capital account. Foreign investment has become one of the main drivers of this account. They come from two sources. The Foreign Direct Investment (FDI) route is critical because as the name suggests it involves investment flows into equity of companies where capital is required. This capital takes a longterm view of the country and generally is stable. Investors would take a stake in the capital of a company, which could be in the infrastructure sector or any other segment; or they could be a buy-out of an Indian company based on the regulation prevailing in the country. The purpose here is to essentially provide finance where the only return would be dividend, which is repatriated when the project fructifies. These flows are considered to be stable as they are not normally withdrawn once they enter the country as the commitment is for a longer period of time.

A contrast to this is foreign portfolio investment, which is called FIIs. These FIIs are out to make money and would invest essentially in the equity market and would extend to the debt market if there were scope provided by the laws. The purpose is to make profits and reward its owners or investors. Therefore, the focus could be more myopic than that of FDI. These funds come in when they see opportunities in undervalued markets and would exit once it is over valued. They bring in foreign currency, which is however considered to be fickle. FIIs may withdraw at any time thus causing upheavals. Since they were permitted entry in 1992-93, there have rarely been negative flows in any year on this score. But this segment is definitely considered to be volatile and a higher composition of this flow would mean a more vulnerable balance of payments situation for a country. Their flows are volatile, as they not only look at the intrinsic strengths of the domestic economy but also the movement in its relative strength to other nations.

While the likelihood of their fleeing the country is low, it must also be understood that when looking at their investments in the country, the broader picture has to be seen. For example, FIIs may have cumulative investments of say, hypothetically, \$ 100 bn in the country. These were the funds that were invested in the stock market at various points of time. But, their investments would have multiplied along with the market growth and if they were to withdraw en masse, then the notional value would be a multiple of the same. Of course, such movements on this scale would cause the market to collapse so that the incremental sales taking place would be at a lower market value. Hence, the likelihood of such an exodus of funds is very unlikely.

Borrowings are the most obvious choice of debt when the account has to be balanced. Both the government, and private players could reckon

these. The government's intervention would be the last resort while private sector commercial borrowings could be the exogenous route. This is also called the ECB route (External Commercial Borrowings). Indian companies would borrow from overseas markets provided the net cost is lower than that in the country or in case these funds are to be used to fund a dollar purchase. Normally, in today's world when foreign currency is in abundance in any country, these factors would be more important.

WHY BORROW FROM OVERSEAS MARKETS?

The cost of funds can be compared with the domestic cost of raising money from say, a bank. If the prime lending rate is 12%, then the company has to weigh this cost with that of borrowing in the international market. Globally, interest rates are linked to the LIBOR or London Inter Bank Offered Rate. This is the rate that banks pay one another for borrowings in the short-term money market. All other rates are benchmarked against this rate. So, we can get a loan of LIBOR plus 400 bps. This means that depending on the standing of a country and the company, the global market fixes the rate of interest to be charged for such borrowings. If LIBOR is 6%, then the company may be offered finance at say 10%. But, 10% cannot be compared with 12%, the PLR in India, as there is also the risk of currency movement. If the rupee depreciates against the dollar, then the Indian company will have to pay that many more rupees to buy dollars to repay the loan and would hence run into a higher cost. If the expected rupee depreciation is 3%, then it has to be added and the effective cost would then work out to 13%. In such an event domestic borrowing makes more sense. Further, it should be mentioned that not all companies would be in a position to borrow money from the euro market and it is only the higher rated ones that have this option. This is where the credit rating of the company as well as the country comes into the picture. As mentioned earlier, the rating of a company can never be better than that of the country and hence not all companies would really have access to this market on favorable terms. The global rating agencies such as S&P and Moody's and Fitch could put a spoke on such ambition.

Differences in interest rates across countries has however, given rise to opportunities in the act of borrowing in a country where interest rates are low and on-lending the funds where interest rates are high. This is called carry trade. This works well as long as exchange rates are stable and interest rates do not change in the reverse direction.

The other route open to the government is where it can tap bilateral sources or fall back on institutional sources of finance such as the World Bank and the IMF. Bilateral borrowing is now passé for most emerging economies and the institutional route is the preferred one. The World Bank and the IMF were both set up after the Second World War to assist member countries albeit for different reasons. The World Bank is interested in economic development and would typically be lending for projects where the government is involved and for areas such as roads, water supply, urban infrastructure, and so on. These funds are meant for pure development and carry concession finance. In fact, an arm of the World Bank, the International Development Agency (IDA) provides finance for the poorest nations. India no longer qualifies for such finance.

The role of the IMF on the other hand is often misunderstood. Its role is to provide finance for correcting structural imbalances in the external account of member countries. In simple words, if there is a balance of payments crisis and the country is a member of the IMF, then it can appeal for a loan and get it to ensure that the balance is restored. The crisis is a situation where forex reserves have dwindled or are dwindling and a country is likely to default on its commitments.

There were other routes for multilateral finance from organizations like ADB (Asian Development Bank) and the KFW (Kreditanstalt für Wiederaufbau - Reconstruction Credit Institute). Like the World Bank, these two organizations gave money for specific projects to the DFIs in the earlier days, which could be lent onwards. The other arm of the World Bank Group, the IFC (International Finance Corporation) essentially subscribed to the equity of vital companies and provided capital through this channel.

The last source of foreign currency is the banking route, which are the deposits maintained by non-residents in Indian bank accounts in foreign currency. These funds are kept in Indian banks in India and earn a lower rate than domestic deposits as they are aligned with global deposit rates. There are restrictions on how they get converted to rupees. Also they can be withdrawn by the holder in case of a capital flight and are hence considered to be relatively less stable than foreign direct investment. This is also considered to be a stable source of foreign exchange, though at the extreme limit, may be withdrawn if a serious crisis is perceived as was the case with the Asian crisis in 1997 when several non-residents withdrew their deposits in Thailand and Korea when it was felt that the country did not have the dollars.

After taking into account all these elements on the balance of payments, the balancing has to be done through the foreign exchange reserves of

the country. If there is a net inflow, then the reserves rise or else this reservoir serves as the last recourse for an adverse balance of payments situation for any country. This may precede or succeed the recourse to the IMF in times of a crisis, which is the lender of last resort. Normally, this kind of a desperate situation rarely arises these days as countries make use of other avenues such as bilateral borrowings, foreign aid, etc., when the going gets tough. If you have no dollar reserves to pay for all the capital and current expenditures then the IMF is the answer. The change in the forex reserves finally denotes the strength of the balance of payments. If the country's account is strengthening, then this component shows a net accretion. If it is weakening, then there is depletion.

RISING FOREX RESERVES, THE TRIGGER OF MONETARY PROBLEMS

It is difficult to say for certain as to whether accretion or depletion of forex reserves is good for the country. While depletion is not advisable, accretion of reserves creates a different set of problems. There is no optimal size of reserves as such and often the question posed is, how are these resources to be used. Net increase in forex reserves finally gets reflected in the money supply position of the country where the dollars are either held by RBI or monetized. This in turn means additional pressure on money supply, which entails monetary policy action. As discussed earlier, all dollars coming into the country need to be converted into rupees, which in turn pushes up the money supply. If there were demand-supply mismatches, then there would be a tendency for demand-pull inflationary forces to be engendered. On the other hand, if the RBI uses open market operations to sterilize these inflows by absorbing liquidity in the system, then there is always the fear of growth being impeded.

The logical question now is whether or not these reserves can be tackled in any other way. Theoretically, there is a solution. As new inflows increase the exchange rate can be allowed to appreciate, meaning thereby that if the rupee is appreciating then we pay fewer rupees for a dollar. But, then what exactly is this exchange rate and how does it move with the times?

THE EXCHANGE RATE

Once the concept of balance of payments is understood, the next step would be to figure out how exchange rates are determined. Theory says that the exchange rate is the price of foreign exchange just as the price of any commodity pertains to the commodity, and all prices are determined by the resultant of the forces of demand and supply. Hence, the demand and supply for dollars should lead to the determination of the exchange rate. Demand comes from imports, travel expenses, insurance, transportation, investments overseas (mutual funds are allowed to do this), loans given to other countries, and so on. Supply is denoted by the converse of the demand factors starting with exports. In short, if there are net inflows on a day the rupee should become stronger and in case there are outflows, then the rupee should fall.

If one were to conjecture the direction of movement in the exchange rate the factors to be taken into account are the following. The leading factor would be the trade deficit. Growing economies tend to have trade deficits that keep rising as more imports are reckoned relative to exports. This keeps the current account also in a deficit. The capital accounts also suggest certain trends. Foreign investments rise in this stage of growth with both FDI and FIIs, which will keep strengthening the currency thus countering the downward pressure being exerted by the current account deficit. Add to this the other institutional flows and non-resident deposits and the picture is complete.

The world economy is still linked to the dollar today and the global currencies are pegged to the dollar; and reserves are being accumulated in dollars. The euro was created to actively challenge the supremacy of the dollar and even though it has progressively become stronger, the preference across the world appears to be to hold on to the dollar. Over 80% of India's trade is denominated in the dollar, which is significant considering that the European Union is a dominant trade partner.

A curious thing about the exchange rate is that it can be driven by what happens to two other currencies. Suppose the dollar is weakening against the euro. Then as the dollar keeps sliding, the rupee will harden or rather appreciate. This will have an impact on the value of foreign currency assets too as the value will fall in dollar terms.

Another aspect of the exchange rate is that often you find central bankers or economists talking of the real exchange rate. It is one thing to look at the nominal exchange rate and conclude that the rupee is appreciating or depreciating against the dollar. There could be different levels of prices in the countries under consideration, which will overstate or understate the value of the currency. Suppose inflation is very high in India then the nominal rate will understate the actual purchasing power of the rupee. Therefore, there is need to scale down the nominal rate using differential inflation or else the existence of money illusion will resurface. This leads

to the concept of Real Effective Exchange Rate (REER), which is defined as the nominal rate multiplied by the ratio of inflation rates in India vis-à-vis the world. Intuitively, it can be judged that when inflation rate is higher in relative terms in the country then the real rate must come down.

Ever since this concept was introduced in the country in the nineties, the real exchange rate has been used as a justification for nominal rate movements. Simplistically speaking, if the real rate is overvalued because of high inflation then the nominal rate must depreciate to reach equilibrium. This theory has held to be true for most of the time and can definitely not be ignored when performing such an exercise.

Innovating the Big Mac Index

The Economist has come up with a very innovative and simplistic measure of comparing currencies. Rather than going through complicated theory and ascertaining the most appropriate exchange rate between the dollar and any other currency, it looks at the universal McDonald Burger Index. The burger is available in almost all major countries and has a price denominated in local currency. Typically, the price difference between the burger in any two countries would be accounted for by the varying costs inherent in bringing the burger to the plate. Therefore, the price can be compared across the board and the burger related currency rate could be worked out.

Burgernomics is hence based on the theory of Purchasing Power Parity (PPP) or the notion that a dollar should buy the same amount in all countries. In the long run, the exchange rate between two countries should move towards the rate that equalizes the prices of an identical basket of goods and services in each country, and in this case the basket is the McDonald's Big Mac, which is produced in about 120 countries. The Big Mac PPP is the exchange rate that would mean hamburgers cost the same in America as they do abroad. Comparing actual exchange rates with PPPs indicates whether a currency is under or overvalued.

HOW SHOULD THE EXCHANGE RATE BE MOVING?

Given that we have a nominal exchange rate which is used for all external commercial transactions, can there be any normative view on how the rate should be moving? Not really, and to continue with the dilemma on the forex reserves, while an appreciation indicates that all is fine with the economy and that the outside world is showing a greater interest in us, it is not good for exports. When the exchange rate appreciates there will be the tendency for a diverse set of impact on market participants.

Exports would tend to lose out if the rupee becomes stronger as the dollar price of the good goes up in the global market. Importers on the other hand would find that the rupee value of the imported goods have come down and will tend to import more thus widening the deficit. Intuitively, it may seen that this by itself could be a correcting mechanism as the deficit would widen now, thus causing the rupee to fall and correct the appreciation and take the system back to the equilibrium rate. But this is the extreme case, and the short-term impact of declining exports may not be a palatable option for the economy. Depreciation on the other hand makes exports more competitive in the market and imports expensive thus narrowing down the deficit. But higher imports have a negative domestic impact in so far as they exert a higher pressure on the prices and hence, inflation.

On the fiscal side, rupee depreciation helps to raise the revenue for the government as the customs collections increase. For the RBI rupee depreciation may be preferable to appreciation because there are no monetization issues. Exporters are happy, as are other earners. Therefore, typically countries prefer to depreciate rather than appreciate, which is a problem in the world today where the USA is running a deficit and is comfortable with the dollar depreciation. The counter-party, the European zone is facing the brunt of this appreciation as they are losing their export competitiveness. China and Japan, which should take on the shared responsibility, have shown their reluctance to respond thus making life difficult for the euro area.

SO, HOW DO WE EVALUATE THE EXTERNAL SECTOR?

Typically, the net foreign exchange assets accrual is indicative of the strength of the country's external situation in the short and medium run while the near run changes can influence the movement of the exchange rate. The build-up of dollars has always been a good thing for countries as it shows the external world the kind of support that can be provided to the obligations of a country. But, it creates different kinds of problems when it is in abundance even though it is hard to define the optimum level. Let us visit the problems that are raised by these reserves.

Forex reserves cannot be invested and hence involve an opportunity cost for the central bank. A country holding \$ 250 bn (which is around 25% of the country's GDP) is carrying an opportunity cost burden. Plain LIBOR investment could give a return of 5% or \$ 10 bn, which is foregone by the country. The same could be lent commercially at a higher rate, but the central bank cannot do so and hence this is a cost that has to be carried. These reserves are normally partly invested in USA Federal

bonds, which are considered to be risk-free. One way out is to demarcate the absolutely essential level that needs to be held as freely available and can be pegged to either the GDP or the current account deficit, while the balance should be invested to earn revenue for the country.

Attention is also focused on the use of foreign currency which can counter the large inflows of foreign exchange into a country and this can probably be attained by the market provided there is capital account convertibility. Now, what is capital account convertibility and why has this been in the news?

CAPITAL ACCOUNT CONVERTIBILITY

One of the more controversial aspects of dealing with foreign exchange is the issue of convertibility. How easy is it for one to get dollars officially in the market? Countries generally come under categories such as: convertible on current account, partly convertible on current account, fully convertible on capital account and partly convertible on capital account. Before the debate begins it is essential to understand that there is no single rule that fits all countries and there is need to bring in adaptations depending on the economic circumstances. These circumstances may vary with time and policies may need to be adapted periodically to ensure that this stance does not conflict with the overall policy framework that is adopted for the country as a whole.

Convertibility means simply the easy purchase and sale of dollars in the country. Selling dollars is still routed through authorized foreign exchange dealers and one cannot run a market for the same on an OTC basis. All forex transactions are conducted through these dealers. In fact, even the currency futures trading platform that is being discussed today does not involve physical settlement in dollars. Hence, while selling to them is fairly straightforward, it is not the same when it comes to buying dollars or any other foreign currency.

There was a time when dollars were scarce and anyone who had to buy dollars had to fill in umpteen forms and apply for these, which were provided with strict limits depending on the purpose. An outcome of economic reforms was to make the items on current account convertible albeit, gradually. Importers could get dollars to purchase goods from abroad; students could get higher levels for education, as could individuals for travel and so on. The logical corollary was then to consider capital account convertibility once forex reserves built up and it appeared that there would be no moving back.

Plainly speaking, capital account convertibility means that you can take any amount of money out of India and invest it on say, the NASDAQ

or in a foreign bank in the USA or Norway; and you could also borrow any amount of money from any country and bring it in to India.

Interestingly, today we have some allowances for current account transactions that are not being used by too many people. This is mainly due to knowledge issues involving foreign markets. For example, one can invest in US stocks on the NYSE or NASDAQ within specified limits but few Indians would understand foreign stocks and may not be a position to trade there. Further, there would be regulatory issues that may be hard to comply with.

Institutions such as banks and mutual funds have their limits cut off for capital transactions as borrowers or investors. FDI and FII have full capital account convertibility. So, we are actually already fully or partly convertible on capital account in quite a few ways. The renewed enthusiasm is due to the extremely favorable economic conditions in the country.

We were enthusiastic of capital account convertibility in 1997 and a committee was formed, which in its wisdom laid down some prerequisites for moving towards this goal. These were: gross fiscal deficit of 3.5% of GDP, inflation of 3–5%, NPAs of banks of 5%, CRR of 3%, and a debt service ratio of less than 20%.

The Asian crisis in 1997-98 led to the creation of antagonists of capital account convertibility. The reasoning as put forth by Paul Krugman was that it is not possible to have a fixed or monitored exchange rate, stable economic growth and free flow of capital at one time. When the going gets tough, foreign funds flow out of the country which forces monetary authorities to either depreciate their currency or raise interest rates. If the former is not acceptable, which is the case in almost every crisis situation then it should be prepared to raise interest rates to attract capital. Central banks at times of crises do not like to depreciate the currency as it aggrandizes capital flight. But, high interest rates lead to a recession and the government has to counter the same with higher spending and deficits, which exacerbates the situation as investors further lose confidence in the country. The chain reaction is hence, reinforced until such time that the currency adjusts fully, i.e. massive depreciation of the domestic currency.

Therefore, if we have capital flexibility we cannot have growth and stable exchange rates. If we want capital flexibility and growth, then we should leave the exchange rate to depreciate, which may again not be palatable. And if we want the exchange rate to be stable with capital flexibility, then we should be prepared for lower growth, which is politically not feasible. Therefore, the famous Krugman eternal triangle or irreconcilable trilogy should be kept in mind when any nation embarks on capital account convertibility. Growth cannot be compromised in a crisis situation, in which case the rupee will fall.

At a theoretical level, one can consider the worst-case scenario to see how good the level of forex reserves would be to tackle a crisis situation. We need to know the extent of the vulnerable flows of foreign exchange in the country, which can theoretically flow out in case of a crisis situation. As a hypothetical exercise one can map the different vulnerable capital flows that can flow out of the country, with the total foreign exchange reserves of a country. The components to be looked at are the cumulative FII flows that are invested in markets, total NRI deposits with banks and short-term borrowings. These elements constitute hot money, which can flow out of the country in case of a panic and hence need to be covered well by the reserves. Short-term loans in particular are a critical component as they are the first ones to be called back when investors smell a difficult situation. To this, one needs to add the current account deficit, which can again be taken as the expanded version of the trade deficit that has to be financed from the capital account. It must be remembered that a high current account deficit, which can no longer be financed by the capital account and was to begin with dependent on hot money, would be accompanied by massive capital outflows of the same hot money in a disaster situation. This doomsday scenario though farfetched is possible when there is a run in the economy. Similar scenes were witnessed when the East Asian crisis erupted and was replicated subsequently in Argentina and Russia.

The situation does not look really that comfortable now. While the euphoria over the forex reserves is probably justified, we need to be aware of the pitfalls of a crisis, which though unlikely, cannot be ruled out. In such a situation, if we are into capital account convertibility there needs to be a contingency plan that can be implemented to take care of the distortions. Also the debt ratios are important here, where the debt service amounts are juxtaposed with the current account receipts and are called the debt-servicing ratio.

The major caution that has to be exercised when going in for such a policy is that the regulating authorities—which means not just the one for foreign currency but also those for the capital market, money market, commodity market, etc., would lose control in case of any crisis-like situation. When capital is mobile across borders, institutions and funds would withdraw thus weakening the debt and equity markets; banks could turnaround creating liquidity problems; or individuals may try and move their money out, which is inevitable in a panic situation. This by itself will create further incentive for capital flight as the currency depreciates, being determined by market forces and the central bank witnesses a fall in forex reserves simultaneously. This is what happened during the Asian crisis.



A Breather

"The difficulty lies, not in the new ideas, but in escaping the old ones, which ramify, for those brought up as most of us have been, into every corner of our minds."

John Maynard Keynes

The journey so far has been across various concepts in order to present, hopefully, in layman terms the complexities that exist in the working of the economy and the conundrums facing the regulatory authorities. All variables follow certain paths based on certain assumptions that may or may not always hold. In fact, the failure of policy may not really be reflective of an inappropriate decision as such, but more a change in the assumptions, which were made when the decision was taken. It is not possible to anticipate the environment accurately and the subject of economics provides answers to scenarios. Therefore, fine-tuning of the economy appears to be inevitable.

Aggressive monetary policy works when there is no excess capacity but if this capacity increases, then higher interest rates will invariably jeopardize growth prospects. Similarly, a fiscal deficit number is based on certain assumptions of the behavior of the economy, which are never known in advance and are susceptible to change. As mentioned earlier, slow growth can make the revenue targets go awry and cause a fiscal upheaval. The government should not be blamed for this incongruence, which is what happens more often than not. Similarly, a natural disaster may necessitate higher expenditure that was not budgeted for which can push up the deficits.

What all this means is that the theoretical underpinning of economics needs to be understood in order to understand the government and its policies. No theory is incorrect because each one of them holds true in a

certain context. Economics is not like medicine where there could be a single cure for a disease. A blend of various theories is necessary to invoke a solution and the recognition of this fact is critical for the smooth functioning of the economy. While academic arguments have been centered on arguing for the superiority of Keynes over Friedman or the irrelevance of Laffer, or the inevitability of Lucas, in reality they have all had their roles to play.

More importantly, when reading statistics relating to economic variables one must always try to see what the numbers really say. Governments always want to show that GDP growth is good, industry is doing well, inflation is down, their spending is under control as is the deficit and that the markets are buoyant, as all these numbers are assumed to be a vindication of good governance. In fact, this is an interesting issue because there are typical responses from various sections of the economy when numbers are spoken of. Governments are either gung-ho or ultra cautious. CEOs are optimistic as are investment banks and capital market participants. Critics and economists are cynical and look for the loopholes. The purpose of explaining what goes behind these numbers is to provide the reader with a fair picture of all the sides to the number so as to not take in what is said without questioning them. One must not get carried away with India being a service driven economy like the USA or inflation being low due to a high base being used for reckoning the same.

With a note of apology, it must be admitted that very often the arguments sound equivocal as there are really two sides to every issue and it is hard to provide a singular response. This makes the work of a critic easy as every action taken can be interpreted in different ways and while the government, for example is aware of it, it can do little to counter them and must take a view on balance after weighing the odds. Also, every action impacts people differently and while it is possible to classify economic entities into groups like buyers and sellers, lenders and borrowers, those paying taxes and those given subsidies, etc., policies are bound to hurt some at the expense of others. This is inescapable. Economists tend to lift one of the assumptions being implicitly made when offering a solution to arrive at another one. Hence, the RBI may feel that on balance sterilization of foreign exchange balances is more important as it affords an advantage to exporters. But, the economist could always play the inflation card or overemphasize the growth impact, both of which are valid in their own ways. Therefore, the purpose of providing as many views on the same subject is to make the reader aware of these alternatives and not fall for what the institution says or what the economist holds. Both are right and wrong, depending on how

one wants to look at the situation. But, generally a longer-term view is taken when a policy is announced and this is the true spirit in which it must be viewed.

The next leg of this journey pertains to short visits to different contemporary issues that we keep reading about or have read regularly in the papers and heard or seen in different conferences or in the media. The purpose is to first present the issue and explain the concepts as they are commonly understood and then make use of the tools outlined earlier to try and critically analyze what actually goes on in the background. The reader should then be able to form her own independent assessment based on what has been presented.



Economic Reforms

"The existence of a free market system does not of course eliminate the need for government. On the contrary, government is essential both as a forum for determining the rules of the game and as an umpire to interpret and enforce the rules decided on. What the market does is to reduce greatly the range of issues that must be decided through political means and thereby to minimize the extent to which government need participate directly in the game."

Milton Friedman

Economic reforms were introduced in the country in 1991–92. For all purposes this is a watershed year because the entire nation has gone through a phase of restructuring of the type that has never been witnessed before. While there have been attempts at liberalizing the economy, this was probably the first comprehensive package that was adapted so as to ensure that there were no contradictions arising along the way. In the past there were piece meal reforms where certain sectors, such as industry were liberalized, but the banking sector did not keep pace with the same. Hence, while industry could expand, they had the same issues when it came to getting funds from the banking sector. The banking sector on its part could not react adequately as it was under the shadow of the government's borrowing programme where funds were channeled through the pre-emption route. Economic reforms therefore, were a critical and turning point in India's economic history, notwithstanding the subsequent problems that ensued.

Interestingly, there has been continuous 'opposition' from the 'opposition' parties to the concept of reforms but quite ironically, all the parties in power have finally geared around to continuing with reforms albeit at different paces. The prevalence of coalition governments has meant that the pace was compromised to placate the opposing factions.

Yet, the length we have traversed has been quite commendable in the last decade and a half. The adaptation shown by the economy has been remarkable and while there are still a lot of shortcomings in the entire process, the benefits have been substantial. It is therefore compelling to read on and really try and look at the journey in an impassioned manner.

PRE-REFORMS PERIOD: A SELF-ENFORCING STATUS QUO

The Indian economy, as mentioned earlier had grown under the umbrella of a mixed economy set up since independence where there was perfect coexistence of the private and public sectors. The private sector had problems in growing freely as there were restrictions placed on its growth path. So there were laws such as the Monopolies and Restrictive Trade practices (MRTP), which were introduced to ensure that companies did not become larger and exercise monopoly power. The idea of placing these constraints was that the government wanted to keep the distribution of wealth more equitable and in case it was not possible to make the poor, less poor, then the rich could be prevented from becoming richer. Hence, while the idea of stopping the creation of monopolies was all right, it appeared to be more of a euphemism for the curbs being put on the rich from getting richer and interpreted often as an 'equity mechanism' rather than one restricting the growth of monopolies. There were also restrictions on the use of foreign exchange called Foreign Exchange Regulation Act (FERA), which was often interpreted as the Foreign Exchange Restriction Act, which put curbs on the foreign exchange that could be drawn by an individual or company.

The entire regime came to be called the infamous 'license raj', where procuring a license to start a business or expand investment was a nightmare. There were limits on the number of licenses that could be issued and the amount of production that could take place. Hence, even if one got the permit there would be restrictions on how much one could produce. Needless to say, the private sector found it difficult to be competitive or grow. Instead of meeting the objectives, it led to a lot of corruption and bureaucratic delays as it took ages for files to move between government departments and the easiest way out was to provide the right monetary compensation.

The same held for imports where there were severe restrictions placed on the goods that could be imported and the duty rates were kept high, as this was a part of the policy of import substitution. To begin with the country relied on the twin doctrines of export promotion and import substitution. For the former, the market was skewed and distorted as a

series of incentives was offered to increase exports. These included cash compensations, duty drawbacks, replenishment licenses, etc. The idea was that these incentives would induce exporters to export more which would help the country to garner more foreign currencies, which was essentially the dollar. Imports would be easier provided one also exported and were made possible on the back of an export order. Otherwise, one would get entangled in the proverbial red tape to get the work done. Further, the tariff rates were high and there were several commodities on the list where imports were forbidden or severe limits placed on them in the form of quotas. This entire system became fairly noxious for industry as the government official held the reins and the entire industry was at the mercy of the office clerk who moved the files.

To work further on the equity issue, the government had also clearly demarcated the lines for involvement of various sizes of companies in different fields. There were hence reservations for certain industries such as the small-scale industries which were meant to develop the rural and small urban crafts and which could in turn provide ancillary support to large industry. Hence, reservations put certain constraints of what one could not do or rather do. These limits were revised periodically but the restrictive procedures remained. Very often the larger units perforce had to procure from these smaller ones, which did not always make them too happy. The smaller units on their part had this umbrella of protection and hence did not bother about competition and turned out to be inefficient, with the result that the consumer ended up getting a raw deal. But the government was quite happy as the private sector could not expand, and the public sector, which was to be the great leveler continued to degenerate.

The public sector on the other hand was large and did not bother too much about profits. It was initially supposed to focus on large, lumpy capital projects such as those in infrastructure but gradually traversed the entire range of manufacturing activity. There were central and state public sector enterprises in areas such as power, textiles, engineering, steel, automobiles, etc. They were perennially making losses but it never really mattered since they were government owned. They had labor employment targets and the government fixed their prices. In fact, such pricing policies also stretched to the power sector, which exists even today, where the consumer is heavily subsidized and the generating companies bear the losses or are subsidized by the government which carries the deficits.

Overstaffing in companies meant that there was pressure on profit lines, which however, could not be reduced due to stringent labor laws that spread not just to the public sector but also the private sector.

Companies with a certain fixed number of employees were not allowed to retrench so-called extra staff and the courts invariably were sympathetic to the cause of labor. This is the case even today where labor cannot be separated even in cases where the companies are not doing well. The justification given was that in a labor surplus economy, there is need to provide employment in different ventures. Once employed, there is no state support system that can take care of the workers in case they are alienated from their jobs. Therefore, laws were kept in place to ensure that such activities did not take place. Companies had to be careful in hiring labor, especially the blue collared workers who were strongly unionized.

As these companies were in commercial production areas where prices were kept low and profits did not matter, they affected the private sector adversely as they had to compete with companies that had these artificially low prices. Therefore, the malaise spread to this segment, too.

Fiscal Profligacy

The government on its part was never too bothered about its accounts. As it had the power to spend as much as it wanted, it never really took accounting seriously. If things did not work out it could always print more currency, as there was no need to look at what Keynes or Friedman had said. Tax rates were high as it was felt that the easiest way to earn money was to increase the taxes. Contrary to the Laffer principle, it was believed that the only way in which revenue could be earned was by increasing the tax rates, which provided another disincentive to industry to invest more. High level of indirect taxes made goods expensive and added to inflation, but one was not too concerned about inflation rates of 8-9%. The government spent quite lavishly on various programs as political agendas got translated into government expenditure. There were several programs for the poor and rural infrastructure with little accountability for the attainment of the objectives set. Non-development expenditure in particular was quite high with the subsidy bill being extravagant.

The budget was always in a deficit and was covered to begin with by borrowing from banks in particular. The government debt market was moribund, but it did not really matter, as it was a captive market. Since the SLR was high, banks had to invest in government paper, which could be issued with ease. And in the worst-case scenario the government would ask the RBI to print currency, which it did quite freely. High monetization of the deficit was the rule rather than the exception. Therefore, there was perfect harmony in this chaotic structure.

Interest rates on government paper were kept to the minimum since it was fixed by the government. They generally earned 4.6% interest per annum and the Treasury bill was the instrument widely used to cover the deficit. But, banks did not mind since they were not profit oriented anyway and as long as they met the requirement of the SLR, life carried on quite peacefully. Therefore, again a harmonious situation existed among all the participants.

Dormant Capital Market and Money Market

Capital markets were generally dormant and companies that wanted to access them had to satisfy certain preconditions. There was a controller of capital issues who had the power to approve of such issues and a formula was fixed for the pricing. Not too many companies preferred this route, as investors too were scarce and limited in number with not too much risk appetite. The secondary market mimicked the primary one and did not generate too much enthusiasm except from certain localized communities. In fact, both the markets fed into one another. Low secondary market activity made capital issuance less attractive and with less fresh paper in the market, there was absence of enthusiasm in the secondary segment.

The money market too had limited dimensions, and the instruments and players were more or less restrictive in numbers. The concepts of commercial paper, certificates of deposits or the existence of primary dealers were not too popular. There was limited trade in government paper, which became more of accounting entries since the interest rate paid on them was not market oriented. The yield curve hence did not exist even in the government bond market, as there was little trading in the entire range of securities with different tenures.

The banking system, as mentioned earlier, was very much socialistic in nature and gelled with a protected economic set-up. Banks were given quantitative targets on credit expansion and deposit growth with the interest rate structure being more or less fixed. These targets had to be met but more importantly there was little accountability. So it was but natural that managers went after these targets and never bothered if the money was returned. This opened the scope for political cronyism. The high preclusions of SLR and CRR ensured that the government's borrowing program was supported and the investment deposit ratio tended to remain high.

The RBI took the initiative to fix the exchange rate, which was fixed on the basis of a basket of undisclosed currencies, and as all purchases were directed through the central bank there was strict control over its outflow. There were hence two inconsistencies here. The first was that the exchange rate was fixed and the other was that there were severe restrictions on their outflow which had to perforce go through the RBI and there was hence strict monitoring of the same. But on second thoughts this was not unusual since the Breton Woods agreement, which had recommended the fixed exchange rate regime had served as the fulcrum of the RBI's operations. A number of other countries, too, had fixed exchange rates.

Foreign investment was virtually absent in the country and where it did exist it was concentrated in the heavy investment sector such as infrastructure. The socialist principles that were adopted after independence were also a result of colonialism which had enveloped the nation for over two centuries and gave rise to a peculiar kind of xenophobia where all things foreign were looked at with suspicion and were best avoided. Besides, for most of the time India was aligned with the former USSR and hence struck deals bilaterally with countries in this zone and was done at the government level wherever foreign currency was required. More importantly, the World Bank, IDA and ADB were involved with providing development loans to finance the growth process.

The economy hence operated under this protective environment and functioned fairly satisfactorily with growth being in the region of 5% per annum through the eighties, which was a significant departure from the 3.5% growth that had characterized the seventies. Controls and regulation typified the system with efficiency being given little importance and there was little incentive to behave differently and life, mind you, was quite tolerable. The socialist leanings of our psyche made one abstemious in wants and with the odd luxury of getting in foreign chocolates when returning to India, there was little exposure to the outside world. Being a self-reinforcing system, there were few loopholes as such as the internal economy was sewn by compatible accounting practices. The leakage could come only in case the external account collapsed, which did in fact happen. This was despite the fact that the economy had survived two oil crises quite creditably in the seventies and had elevated the level of growth rate over this period.

HOW DID THE CHANGE COME ABOUT?

The early nineties saw a gradual deterioration of the balance of payments, which meant depletion in forex reserves as the trade deficit had risen considerably. This was accompanied with high fiscal deficits, high interest rates, high inflation and a falling currency, i.e. depreciation. We had in fact reached a stage when we were not in a position to cover our imports

and there was a lurking fear that India could default on its external debt obligations. In fact, the level of our forex reserves was able to cover just about two months of imports. External debt is the sum total of all loans taken in dollars and has to be serviced by interest payments as well as instalment repayments. The interest component too could have created problems.

The government had actually shipped gold out of the country to seek loans overseas as the gold served as collateral in a situation when the world was suspicious of the country's financial credibility. Twenty tons of gold was leased to SBI to sell and repurchase after six months. The RBI shipped 47 tons of gold to the Bank of England to raise \$ 600 mn. In this state, the government was also forced to approach the IMF for a loan to correct a fundamental imbalance in the balance of payments. Between 1991 and 1993 India had taken around \$ 3.5 bn of financial assistance under different schemes of the IMF. Similar cases of forex crises in East Asia or Mexico, Brazil or Argentina were addressed by the IMF, which helped to restructure these economies.

The IMF however does not give loans to sovereigns right away. They do draft out a restructuring package, which clearly marks out the strategies that need to be adopted by the government as the loan is utilized. The restructuring is often referred to as 'conditionality', which is placed by the IMF. The conditionality clause clearly says that a loan of \$ 5 bn is being given to India provided it does A, B, C, D, etc. This is so because the IMF needs to make sure that the funds are put to good use in a desirable manner. Otherwise, nothing would stop the country from channeling these funds to other non-priority areas. The other argument is that the IMF provides finance for restructuring the economy to make sure that they are back on the path of steady growth. This would not happen unless such structural changes are not undertaken. The basic premise is that the IMF loan is meant for correcting fundamental imbalances in the balance of payments, which really means that to straighten things out, it is essential to follow a certain path.

Conditions: Are They Fair?

Before going to these conditions, an issue that has been raised is whether or not this is right. There is the counter-view, which questions these conditions and makes one think whether or not it could be right for a single kind of package to work in all countries considering that they have different backgrounds. Also, ex-post it was found that these packages have at times put countries in even a greater mess. While the protagonists argue that if the IMF is giving the money they have the right to dictate

the use of funds; those who are antagonistic towards these conditions feel strongly that these conditions are nothing but imperialistic tendencies which indirectly benefit the USA, who for all purposes is the leader within the IMF even though today it appears that the IMF chief comes from the European zone while the World Bank chief is a US nominee. But, still it is necessary to understand these rehabilitation packages.

The Controversial Conditions: First Impressions

The IMF works on the premise that free markets deliver the best results. All government interventions must necessarily be sub-optimal and tend to distort the markets. Therefore, all reforms need to be centered on liberalization in all sectors: industrial, trade, fiscal, monetary, banking and foreign investment. The IMF prescription in straight terms is quite plainly to open up the economy to the forces of the market, which also means competition, and is a condition that is attached to the sanction of the loan. It is really a case of give and take where the loans are attached to these packages.

These kinds of loans with conditions have often been criticized by economists such as Joseph Stiglitz who have maintained that such conditionality does not really help the nations in distress but may only compound the same while assisting the developed countries, especially the USA, who tend to benefit the most with such arrangements. As mentioned earlier, these multilateral agencies are anyway funded mainly by the developed nations who have the power to enforce these policies. Hence, all loans finally get re-routed in the form of benefits to themselves. Worse, the countries taking such loans could find themselves in a difficult situation, as they need to resolve several conflicts and contradictions that are raised along the way by them.

Let us see how this can happen in a real life case. A country that is working in a 'closed set up' cannot suddenly open up to competition; and domestic industry in particular can get affected perversely if overnight imports are allowed in easily, which is what the package calls for. This was the case in India too when imports were liberalized. Industry was euphoric to begin with as duty rates started coming down. But, then it was suddenly realized that if the engineering industry was better off with lower import duties on steel, then the steel industry was disenchanted as it lost its competitiveness vis-à-vis imports. Therefore, there were crosspetitions and cross-lobbying along the way to counter each one's claims. To top it all, this also opened the doors for some 'dumping' where goods are imported at prices that are lower than the cost of production, which

however is difficult to prove. India felt that Russia was dumping steel, while elsewhere in the world it was alleged that India was dumping textiles.

Governments that need to lower their deficits will invariably have to end up cutting back on development programs that cannot be compensated for by private sector action. Hence, the poor end up getting poorer. These kinds of conditions do not exist in the developed world where governments can actually think of cutting back on expenditure programs without adversely affecting any specific segment of society. Letting in foreign investment freely could again be unfair for the host country as such investment often comes with superior skill sets and technology and could simply take over the entire nation, thus reintroducing a new brand of imperialism. Indians as a rule have been apprehensive of foreign investment and the government had to take into account these concerns when formulating policies that would appease the IMF and at the same time not lose votes. The same holds with privatization where a sea change in the operation of PSUs can mean loss of jobs and other adjustments in work culture, which cannot happen overnight as people take time to adjust. These kinds of problems were bound to come up along the way when the nation embarked on reforms.

A LOOK AT REFORMS

The government thus embarked on reforms in 1991 and while the critics severely reiterated that the package was a sell-out to the IMF, the government tried its best to convince the people that it was needed and that free markets were the best remedy for stagnation. As mentioned earlier, we probably did not have a choice since we needed the money and had to adhere to the rules of the game that were set by the IMF. Reforms as a rule have to be all-encompassing if they are to be successful and therefore, the package spread across all areas of the economy. To begin with industry was liberalized. De-licensing which was practiced in the eighties albeit in gradual measures became more serious. Capacity expansion was made easier and the two inhibitive laws of MRTP and FERA were done away with so that industry had more elbow width. It is but natural that industry took the clue and embarked on elaborate diversification plans. Instead of core competence as was the case earlier, companies went in for diversification often in unrelated activities. Management books have espoused diversification of this nature as a smart way of diversifying risk because in a competitive set up when risks increase, there is the tendency for companies to get into unrelated fields so that even if there is a downturn in one line of business, the other one could make up for it. Hence we have had companies that are into engineering, also manufacturing cold drink bottles and caps.

A Digression

This is nevertheless a very interesting debate on the models that have to be used by industry in the face of competition. Diversification makes sense, as do backward (produce goods in the back end of the value chain) and forward integration policies (produce goods in the further end of the value chain). We have seen Reliance Group, which started of as a textile firm actually show the nation what is backward integration and have gone right back to the oil exploration stage. At the forward integration stage we are now seeing retail supermarkets!

Similarly, industrial models move over from the 'small is beautiful' framework which suits economies that have scattered and small size enterprise to the one where size matters or the 'Godzilla' models of growth. Liberalization makes 'big' sound better and companies invariably try out all options on integration and diversification only to consolidate at a later date, which is happening today. Industrial thought has come a full circle today, where companies are going back to their core competence and there is vast M&A activity going on in the country as companies are leveraging synergies to grow and hence economize on time. At the same time, with a lot of talk on inclusive growth, the 'small is beautiful' adage has come back into flavor with concentration now being focused on reaching out to the small firm.

To enable easier access to imports, they were progressively liberalized and the open general license route was expanded to include a wider variety of goods that could be imported under the general category thus getting out of the syndrome of red tape and corruption. This move was combined with declining customs duty rates as part of fiscal reforms so that ultimately it made a lot of sense to import goods. Export incentives were gradually withdrawn and exporters were on the path to becoming more competitive. While some lip service has been paid to labor reforms where employers have been given the right to downsize labor, it has been met with stiff resistance across all industries and the government has preferred not to become too forceful in this area.

To overcome the technological deficiencies that could occur, the government also encouraged foreign direct investment. The rules for entry were rewritten and eased gradually so that clearances were quicker and there was less ambiguity. Sector specific rules were laid down which allowed FDI within certain limits. Today, there are very few sectors where they are not present and the limits have been increased progressively for most of the sectors, to the extent that majority holding is in foreign hands. The inflow has been very impressive over the years and India now is a popular destination for FDI though when a comparison is made with

countries like China it is not that impressive, as China gets around 10 times the FDI that India draws in every year (this trend has changed of late).

Capital markets went through a major metamorphosis with the entire system of raising capital being eased and the CCI (Controller of Capital Issues) was disbanded. Companies could now access the market based on their own merits and while the regulator SEBI has laid down guidelines, the system of price determination was left open to the companies and the public. Hence, within a strict framework of regulation to protect customers, the companies could peddle their shares. The capital now raised in the market multiplied many-fold, as there was a phase when the euphoria seriously raised the issue of disintermediation as both savers and borrowers accessed this market for better returns. The latest trend is to have a book-building process wherein the company quotes a band for the public to bid—but invariably it becomes self-fulfilling as all investors bid for the upper end so as not to get left out.

The banking story has been described earlier and the financial sector reforms, which were based on the Narasimham Committee Report sought to bring in the global best practices at the teller counter. Just to recapitulate, free interest rate structures, private banks, prudential accounting norms, branch rationalization, staff redeployment, competitiveness, technology were some of the new features of the system. The RBI on its part has very carefully brought about these reforms allowing a lot of space to the public sector banks, which have had to reinvent themselves and have done so creditably in the last decade and a half. Financial sector reforms were thus, one of the major success stories of the entire reforms process where liberalization had also been associated with profitable banks and the distinction between public sector and private sector banks is now only one of ownership and not performance. The year 2009 will now be a significant one for the banking system as foreign banks will have greater access to the Indian financial space which will probably see a lot more M&A activity.

The Big Fiscal Step

The government got its act together to reform its own operations and for the first time became transparent with its accounts. The concept of fiscal deficit, which never existed earlier, came to the forefront. Earlier there was a budget deficit and a monetized deficit, which was denoted by RBI credit to the government. But, incorrect said the IMF – one should look at all borrowings and one cannot distinguish between exogenous borrowings and budget-related borrowings. In fact, the IMF does not just look at the central government deficit and goes beyond to talk of a

deficit which includes the central government deficit as well as those of all the states as well as losses of PSUs. This, they say, is the true fiscal deficit, which at one time could be at least twice that of the central government. Hence, one should not look at just the central government's fiscal deficit and be happy if there is an improvement. One needs to look at the state governments' deficit as well as the losses of PSUs too to get the complete picture.

The government has also become serious on the expenditure side and has worked hard towards trimming its non-development expenditure. It is fairly contentious when the issue of subsidies is discussed because subsidies are the best way to reach out to the poor and if the government were to cut down on this expenditure, then what would the poor do? While there have been questions raised on the transmission of these subsidies and the widespread leakages that are inherent in the system, the solution definitely cannot be to get rid of them. Instead, one needs to improve on the distribution mechanism instead. The government also brought in several staff-severance packages in order to become leaner, which were quite successful.

Taxes were rationalized and while different committees (like the Kelkar Committee) were set up to recommend reforms the government has gone slow on the exemptions to be scrapped, that have been recommended. The basic premise of reforms is that the tax rates should be low and exemptions removed so that the system is easy to understand and implement. Also, easy systems make compliance smoother and low tax rates reduce the need to evade taxes.

All these measures were aimed at bringing about better fiscal numbers and while a long-term fiscal policy concept was not really new, targets were set for lowering both the fiscal deficit and the revenue deficit. The government has been quite successful so far in moving towards these goals, though at times its approach towards expenditure has raised contradictions. The government, it should be remembered is a largest spender on several products such as metals, cement, paper, etc. This is so as its development programs entail purchases of these products. Now, with the commitment to lower the fiscal deficit the government faces some conundrums. Very often tax revenue does not rise, as the economy is not growing rapidly as per schedule. Then non-development expenditure cannot be easily compromised for reasons explained earlier. If the targets on the budget are to be met, then the government perforce has to cut down on its development expenditure, which in turn can affect the sales of private industry. Therefore, it is not uncommon that a slowdown or a recession in the mid nineties that was witnessed in India owed its genesis partly to a hesitant government that did not want to spend.

Another reform that had to be implemented and which has been fairly messy in the last decade is privatization. There has been a lot of criticism from the opposition as well as the staff on these measures. Limited privatization has taken place though in some segments such as telecom, it has been more widespread and successful. The idea here really was to turn around the public sector units which had been a drain on the economy in terms of making losses perennially, with no signs of a change taking place. Privatization of public sector units has always been contentious across the globe even in developed countries where the loss of jobs and different working conditions has caused this resistance.

Getting in the Dollars

The major revolutionary change however, was allowing foreign institutional investors to participate on Indian bourses. They were given ceilings to operate in the equity market in terms of the equity stake that they could have and the Indian market offered a plethora of opportunities for the investors. For the first time one really saw research reports coming out regularly on the performance of the industry and companies, with long-term forecasts being made. By investing in no more than 10–20% of the daily turnover, they managed to drive the markets decisively. They have become market leaders as they provide clues to the markets and often their views synchronize with those of mutual funds and other broker firms. But, that is how these markets work. Large sums of money are invested in the market and certain sectors are targeted based on the existing P-E ratios. Typically, prices are to trade a certain times the earnings per share of a company. If the ratio is low, then it means that the full potential is not exploited and one can buy these shares. There is always a bandwagon effect here, and when FIIs buy the rest of the country buys and when they sell, they too follow suit. They have thus managed to swing the markets quite remarkably. This added a new dimension to the markets by providing a lot of institutional support and as some would say respectability, in view of the fact that this market was considered to be a gambling table by the harsher critics.

On the external front, too, major changes came along the way. The first was with the exchange rate that was fixed to a basket of currencies by the RBI. The currency was first made partly market oriented and then fully market determined with the RBI holding the power of intervention whenever it chose. Restrictions on inflows and outflows were eased gradually on the current account such that today there are very elaborate limits available for utilization on the current account, though the capital account remains restrictive on some ends. Loans that were

drawn from the multilateral lending agencies were reduced to a great extent on two grounds. The first is that the economy improved and that obviated the need to go to the IMF, while the private sector depended more on the external commercial borrowing route to garner funds. These loans are taken in the global market based on the rating of the country and the company. Companies are able to get better deals based on this rating and can decide based on the interest rate differentials as well as the exchange rate variations expected, often connoted by the forward rates. This way companies have been able to borrow on more competitive terms from this market, which has of late added to the forex inflows.

The sum of all these measures has been positive for the country in terms of better economic indicators. GDP growth has been impressive, as has the industrial progress. Imports are easier and exports growth has been remarkable with a 20% growth rate being maintained for quite some time. The exchange rate has been geared by the RBI and has followed market fundamentals and forex reserves have built up to the extent that there is an embarrassment of surpluses in this area. The government is most conscious of the fiscal deficit and there is an internal resolution to lower the deficit. The services sector has made a mark with the IT industry actually posing a threat to the west. Capital markets are buoyant and India is the most sought-after bourse by foreign investors. The banking sector is robust and most of the global norms have been complied with. And all this has been achieved under stable inflationary conditions. The final acknowledgement has come from the international banks and research agencies, which actually accept that India would be one of the largest countries in the next 40 years or so.

Why then are the Rating Agencies Still Unhappy?

The west should actually be pleased by the structure of reforms. But, they still have some problems with the reforms process being slow. They feel that India is still closed to foreign investment. The other view here is, how open are other countries such as USA, UK, Germany, France to foreign investment? India is already very open in most sectors and cannot really go beyond a point. The second grievance, which is also the one which rating agencies keep chiding India about, is over the slow progress on privatization. It is widely believed that the government does not have the will to carry through with these programs given the absence of political majority for the governments in power. The third is in relation to the combined fiscal deficit where the government is working hard but it would really take time before the western world's levels are attained.

The fourth area of concern has been the strong labor laws. Labor reforms have been advocated along the reforms process, but the action taken here has been limited with the unions really exercising considerable countervailing power.

HAVE REFORMS BEEN A SUCCESS STORY?

This is a tricky question because there is a mixed response. If one were to choose between a 'yes' and a 'no', the answer would be yes. The biggest gain has been the new structures that have been created which are for the better. In terms of direct material gains, the results have been exemplary as they were definitely not visible before the reforms period. But, there has been a tendency to extol the major gains made in terms of growth and prosperity in the lives of the people after 1991. Cheaper electronic goods, mobile phones, lap tops, shopping malls, fine dining, are some examples of the emerging India which could not have been visualized in the past by most of us. Interest rates are globally aligned and it is possible to borrow for a vehicle very early in one's career. The same holds for mortgages and the extensive use of plastics in purchasing goods has already permeated the lower middle class while the farmers have also been brought into the fold with the farmer credit cards. To the extent that the economic spheres that were sought to be subjected to reforms have succeeded significantly, one can be satisfied with the direction and pace of reforms.

While the benefits have been significant in terms of numbers as well as structural shifts that have taken place in the economy in the last decade and a half, there are some areas of concern.

The first is the area of agriculture. Reforms, as the reader may have noticed, have primarily been an urban oriented package covering industry and services in a restricted geography. This is a good beginning because most of the growth that takes place in the country is in these sectors and would hence tend to be concentrated in these areas. These are the high impulse generating centers and are necessary to bring in the good numbers when it comes to growth. But, all the policies have aimed at improving productivity in industry and services, especially financial and have kept agriculture out of the purview. The result has been an indifferent performance by the sector over the years, which, unfortunately affects a large part of the population.

The last attempt at changing the scope of agriculture was the Green Revolution that was seen in the seventies and very feebly in the eighties. This was a concerted action initiated by the government to improve yields in agriculture and was concentrated on use of better seeds, irrigation and fertilizers to uplift production. It was also supported actively by the credit system as the banking system had gone through the nationalization phase to become more farmer oriented. However, the Green Revolution ran into problems of indifference after a point of time. Given the nature of the package, it tended to get concentrated more in the northern states of Punjab, UP and Haryana and also got restricted to wheat. Hence, it was more of a wheat revolution rather than a green one. The other states and the major crop, rice got left out in the process. Nevertheless, this was a significant achievement in this field. The problem of the exclusion of agriculture has meant that a major part of the GDP which covers a large part of the population given that 60% of the work force depends on agriculture for a living, has been left out.

The second major lacuna is the skewed nature of growth that has taken place. The rich have tended to become richer and the size of the middle class has increased. But, there is a mixed view on the poor. The government numbers vary with the private estimates on the poor and the definition of poor by itself is quite nebulous. The World Bank defines poor as one who earns less than a dollar a day, which works out to around Rs. 40 a day or Rs. 1200 a month at the exchange rate of Rs. 40 per dollar. Intuitively, one can look around your own house and see that there are several of our domestic help who have extended families running into 6-8 members who earn less than this amount and are actually poor, though they may not get included here. Further, there have been several instances of starvation deaths and suicides by farmers who are unable to repay loans. Certainly, these instances do lend the thought that reforms have been skewed in terms of their positive effects. Curiously, a government repot recently brought out reveals that there could be 80% of the population that earns less than Rs. 20 a day.

While these numbers are debatable and there would be naturally two views, what is important to note is that there is still a bridge between the rich and poor, which may have become a bit more distant. The advantage of a large, growing middle class is that it camouflages to a large extent the overall misery levels since it holds out promise of hope for the poor as it moves along the income echelons.

The third area that has been addressed though not sufficiently to make an impact is the infrastructure sector. While there have been efforts to bring in a modicum of privatization in the aviation industry and foreign investment in the power sector, large gaps exist which can be a barrier to growth. The pace of infrastructure growth has just not kept pace with the industrial growth rate thus creating a disconnection between the two. Power supply remains erratic and scarce in several states. The state of

roads is unsatisfactory despite all the efforts that have been put in, with only the highway work being commendable and the golden quadrilateral work in full progress. Ports are in a state of regress with the average turn around time being 5–10 times higher than those in Singapore or Hong Kong. The problem is really of investment and while foreign investment is the clue, the actual inflow is much lower than what China for instance procures, which has helped them to steer the economy to a different level. Also, rural infrastructure which is an integral part of the country's development is in an even worse state with there being little attention paid to roads, transport system, irrigation, power supply, drinking water, etc.

Closely related to these lacunae is the limited progress in social infrastructure encompassing education, sanitation, drinking water and health facilities. The progress has been abysmal and while there are announcements of certain allocations in every budget announced by the central and state governments, the actual fructification of funds into these facilities has been limited. This is why India still scores quite poorly under the social indicators by global agencies such as the World Bank.

So it does appear that the impact of reforms has been quite mixed and there is need to address these issues to eschew difficulties going ahead. The inequality part is critical because it can lead to social problems at a later date with the gap between the 'haves' and 'have-nots' increasing. Given the vast population and the absolute number of deprived people, the task is clearly to address the issue head-on through some direct action programs. The infrastructure issue is more tickling because large quantities of funds are needed to improve the current state of our roads, ports, airports and power systems. There are significant leakages that work against this development. If not tackled, they would serve as a physical barrier to economic growth because the country has already reached its peak level with the existing infrastructure.

Agriculture is another worry because there are really no solutions in the short run given the uneven structures that exist across developed and developing countries. Agriculture is heavily subsidized in the west, which exposes our agriculture to certain disadvantages. To top it all, there is some degree of callousness in our approach, which has ignored agriculture and which is bound to create deeper problems as we move ahead. A long-term policy is essential to uplift the system.

Taking a balanced view of the entire process of reforms it may be said that we do have the platform from whence one can build on the foundation and try for inclusive growth. The two processes have to move together to prevent lopsided growth and ensure that the distribution aspect of the development process is fully attended to.

12 CHAPTER

Globalization

"For much of the world, globalization as it has been managed seems like a pact with the devil. A few people in the country become wealthier; GDP statistics, for what they are worth, look better, but ways of life and basic values are threatened. For some parts of the world the gains are even more tenuous, the costs more palpable. Closer integration into the global economy had brought greater volatility and insecurity, and more inequality. It has even threatened fundamental values. This is not how it has to be. We can make globalization work, not just for the rich and powerful but for all people, including those in the poorest countries. The task will be long and arduous. We have already waited far too long. The time to begin is now."

Joseph Stiglitz

Coke, Reebok, Vodafone, Levis, McDonald, Costa, Mercedes, BMW, Hersheys are some names which are common to us, which twenty years ago would be confined only to pictorial glimpses in some international magazines. If we were lucky, then we had our uncles and aunts bringing in suitcases of some of this stuff when they came back from a foreign holiday within the strict limits set by the RBI. Today, they are commonplace and all of us have access to these brands. The delivery of these brands to the man on the street in India is all part of a phenomenon that has really caught on in the last decade or so, called globalization.

WHAT IS GLOBALIZATION?

Globalization has no standard definition and hence is quite malleable in scope to the extent that both the protagonists and critics are able to attribute their stories to it. One way of viewing globalization is to see the entire world as a single unit where everything is dependent on everything. It is

more like saying that the world is one country and the present set of countries are provinces in this architecture. After all, the boundaries that demarcate these countries are mere political conveniences, which have been darkened by the turn of history. We never thought that the Berlin wall would come down or that the USSR would disintegrate. As a corollary, this means that what happens in India is not going to be really independent from what happens in the rest of the world. This holds good for all countries, both consciously and inadvertently. This interrelationship between countries could be quite amazing as it can touch every aspect of our lives. How does this happen?

Globalization today, as briefly indicated earlier, is not really a conscious action taken by countries to get integrated with one another but is something that has happened as various economic rules have been pursued by different nations with self interest in mind. These rules are based on the principles of economics that have been discussed in a very rudimentary way in the beginning. This integration has more often than not been voluntary and the benefits have flowed to all the participating countries.

Thomas Friedman has spoken of the world becoming flat which is more of a technology miracle as there is more information available today than has been before. This has strengthened the process of globalization. But this has also meant that crisis situations are no longer localized and the Asian contagion or the sub-prime crisis could be felt across all borders as the world economy is getting progressively more integrated today. There are evidently linkages that tie the world economy together. The same could not have been visualized happening two decades ago when the political economy of the world was split in three dimensions: capitalist countries, socialist economies and the third world. Everything has changed since the Berlin wall has come down and the word 'collaboration' has replaced the term 'conflict' which was predominant earlier.

THE PROLIFERATION OF GLOBALIZATION

The first touch of globalization is actually trade, where every country trades with the other ostensibly based on the law of comparative advantage. Even rogue nations like Iraq and Iran, which are generally insulated from the rest of the world provide a valuable resource to other countries in the form of oil and spend the dollars earned on goods that they do not possess in sufficient quantities. Intuitively, it can be seen that as trade takes place, what happens in one country affects the other. If

India is importing oil from Dubai and there is some embargo on Iran, or if Iraq is at war with another country, then invariably the supply of oil gets affected and everyone has to adjust. We may end up paying more as Iran is part of the group that supplies oil and any reduction in these supplies due to a political action translates into lower output for the entire world. So, trade is a unifying factor where such relations are built and strengthened. When we add services, agriculture, financial markets, economic policies, political and social relations and the like, we can see the entire world becoming dependent on each other's developments.

Besides trade, where physical relations are established, the other integrating factors are prices and policies. Prices refer to exchange rates, interest rates and prices of commodities, which have progressively forged strong cross-country linkages.

Exchange rates through trade and other balance of payments relationships bring countries closer together. In the earlier days when countries were on the gold standard, there was a tendency for gold to be shipped to bring about equilibrium to balance the external account. But today it is the dollar or euro, which has become the store of value and a physical flow of dollars or euros helps to balance the external account. The balance of payments tells us how the forex reserves are going to move which will determine the purchasing power of the rupee. This in turn is dependent on the actions of other countries. The foreign inflows are decisions taken in the host country and invariably are based on their own considerations. For example, the Indian stock market could be bullish as FIIs keep buying securities. But a decision taken to move out of India may not be because India is doing too badly but because these investors are moving to another market or are investing in US bonds as the Federal Reserve has increased interest rates. Or, as was seen in the East Asian and sub-prime lending crises, withdrawal of funds from emerging markets was undertaken to make up for losses occurred in crisis afflicted countries. Higher interest rates offered in the USA will make NRIs (Nonresident Indians) put their money in local deposits rather than in India. In all these cases the extent of globalization determines the quantum of dollars flowing into the country. However, in case countries are insulated from the world as North Korea, Cuba or Iraq, this factor may not matter.

Making Financial Markets Interdependent

The interest rate contribution is even more interesting. We in India are constantly seeing what the Federal Reserve is up to—whether it was Mr. Greenspan earlier or Mr. Bernanke today. The reason is that any

decision taken in the USA has a bearing on what could happen in India. The RBI has maintained that the decision to change interest rates is always a domestic one and not influenced by the Fed's actions. But, if interest rates increase in the USA then it means that there could be a slowdown in growth, which also means that their imports would slow down and hence India's exports could be affected as USA is India's leading trade partner. To ensure this does not happen, the RBI may choose to defend the currency and ensure that the rupee does not appreciate, which can be done by raising interest rates. Hence, a global disturbance has a bearing on the domestic economic policies. Further, with free flow of capital where borrowers can access the global markets, they can do the arbitrage until such time that interest rates equalize across options. If interest rates were low internationally compared to Indian rates, a domestic company would look at the rate at which funds are lent to it in the euro market, which would be the LIBOR plus a percentage. To this one would look at the exchange rate risk, which is the rupee depreciation and then compare the cost with the domestic market. Intuitively, if the difference is large then borrowings will be from global markets and the domestic rates will move downwards while the global rates move upwards to find equilibrium. Therefore, normally all interest rates in the world tend to move together in the same direction reflecting the impact of globalization on the money markets.

Goods Must Cost the Same

If one turns to commodity prices, there is a strong correlation between prices of commodities in different countries as foreign trade possibilities has brought about this interdependence. The OPEC, which is a producer cartel determines the oil prices. Their rates will determine the course of action for the rest of the world. Governments like ours' may like to control prices and administer them but we would be affected in other ways in the balance of payments on this score. Metals prices for example, are again determined in the international market and the domestic cost of production of an automobile can go up as international prices of steel move northwards. Therefore, prices of physicals are also becoming international. The process has been hastened with the lowering of trade barriers. Cheaper imports necessarily mean that domestic producers have to lower prices to remain competitive. Even more curious is the fact that today a wheat shortage in USA or a soybean crop failure in Brazil can lead to domestic prices rising. This is so because once there is a crop failure in any part of the world there would be an increase in import demand, which in turn will divert domestic production for exports and increase

domestic prices. Lastly, the move to blend petroleum with ethanol produced from corn or maize has implications for the entire growing pattern of these crops all over the world. Areas under cultivation could shift to corn, if corn delivers superior prices in which case production of other crops like wheat could fall. Now, those countries that cannot grow corn or cane can increase their production of wheat and make better money in world wheat markets. So, it is essential for us to view the decisions being taken in Latin America and the USA for reasons which may not be really clear to begin with especially since we may be self-sufficient in the production of say, wheat or maize.

Prices have hence become an equalizer and as countries get included in this mainstream there would be closer movement of prices to the extent that the textbook definition of 'one price prevailing in all markets' would be realized. The process will be hastened when trade barriers are removed, which is also an aspiration of various trade agreements. If this happens faster, then the differences in prices would reflect simply the transportation costs and the exchange rate differences. In fact, this sort of price equalization is swifter and more powerful than that within the country. The reason is that within the country there is opacity in information, which dissolves as we turn global and information asymmetry disappears.

Policies, the Binding Agent

It is not just prices that integrate the world. Policies of various countries also bring about the globalization process and are driven more by political than economic factors at times. As trade relations build up, barriers are reduced and countries look outwards and value the benefits of freer trade. There is the WTO, which was established to bring about more realistic duty structures to promote free and efficient trade. It is a different issue that the WTO is beset with several problems because to begin with all countries would like to gain at the expense of the others. They would ideally like to push their goods into the global arena while trying hard to restrict the entry of goods into their own country.

As the integration process begins there would be the tendency for all duty rates to fall across countries, though the pace would differ. But, the force of globalization will make countries pursue similar ideals. Regional trade agreements would also accomplish similar goals within a set of participating countries and easily assimilate with the WTO rules at a later date. Hence, globalization is furthered through these arrangements even though the time schedules would be long since countries would take time to accept them. The major reason is politics since governments

in power need to tell their home audiences that they have come back with a net positive baggage, which is going to be hard for all the countries to accomplish for all times. To top it all, when governments change they do raise this issue to come to power and then resist these treaties, especially in developing countries; but they finally accept most of the terms all of which takes an enormous amount of time. It is hence a dynamic and evolutionary process.

Many regard globalization as being inevitable and therefore it is suggested that countries should be prepared to face this eventuality. But, then such integration is generally a political decision and while most are on the track, the pace of progression is quite different. In India for example, it has been observed that there is a modicum of resistance to FDI in certain sectors such as retail or insurance as they have become sensitive subjects. This in turn does slowdown the process. With the proliferation of trade, investments, agreements and ideology, there would be a tendency for convergence in views on this subject and while there would be differing paces of acceptance and adjustment by different countries, they would finally realign to the concept. Practically speaking, nations need to adjust by bringing in the right set of economic policies as it may not be possible to carry on in isolation.

ADVANTAGES OF GLOBALIZATION

Let us look at the advantages of globalization as perceived from the theoretical standpoint. Globalization enables specialization based on comparative advantage thus bringing about effective use of resources. This goes back to the Ricardian theory of comparative advantage. Every country will specialize in goods where it has a comparative advantage in production; so, developing countries would move to areas such as information technology, primary products while the developed would do so in manufacturing. With falling barriers to trade, goods would move freely across boundaries thus bringing about an optimal utilization of resources.

Secondly, globalization would also lead to declining costs and hence affect prices in the medium run. Today, countries produce all the goods that they can and may end up using more expensive resources. This will fall with specialization and hence society on the whole would benefit.

Thirdly, there is wider availability of goods and services once all barriers are removed as freer trade enables easier delivery, too.

Fourthly, as globalization principles spread to services, investment and intangibles, the originators as well as recipients can leverage them, as it would save a lot of time and money to use systems that already exist. This holds true for say, financial services, investment resources and intellectual ideas. Global best practices start proliferating with trade in these services. These ideas could germinate in the form of say, the ATMs (Automatic Teller Machines), which was the creation of foreign banks in India and the use of IPRs (Intellectual Property Rights) to protect and further discoveries in the field of medicine.

Lastly, globalization furthers political relations, which is a corollary to the cementing of economic relations. Countries would tend to work closely together in order to build these relationships. In fact, they would gradually move towards open democratic societies as acceptance of the norms of globalization would ensure that countries pursue liberalization tenets, which is not possible under non-democratic regimes. The classic case is China, which though, still a non-democratic country is well liberalized and is gradually moving towards a more open political set-up.

These are some of the textbook advantages accruing from globalization which is supposed to benefit the entire community. However, there are some qualifications when one looks at the way it really works.

To begin with, in all these acts of globalization it is invariably the developed nations that tend to dominate and set the rules of the game. Experience has shown that almost all such agreements relating to closer cooperation are heavily laden in favor of the developed countries. Agreements such as the WTO tend to be biased against developing countries as invariably the developed countries have drafted them. This in turn has created a new bloc of developing nations where they have come together to represent their own interests. Further, there could be a tendency for exploitation of the developing countries by the developed ones with such unequal arrangements. At times, one gets the feeling that the present globalization process is a reintroduction of the imperialism that was witnessed in the early part of the $20^{\rm th}$ century or even earlier where colonialism and imperialism were natural fall outs of the development process taken by capitalism. Let us see how this works.

Countries keep growing at a rapid rate under the capitalist system where the market forces dominate. Then at a point of time when the countries reach a stage of self-sustained growth there are certain barriers to further growth that are encountered. These barriers manifest themselves in the form of peak consumerism, as there are limits beyond which consumption cannot increase. The size of the GDP is enormous and as mentioned in the beginning, growth based on domestic impulses cannot generate high growth rates of 7–8% per annum on a sustained basis. Therefore, it is essential to look at the global economy to boost economic

growth. This situation in the Marxian frame of things would actually lead to capitalist nations spreading their influence to the rest of the world, which was often done through the use of colonization, which in turn served a dual purpose. The first was that they had access to the colonized country's domestic resources and also managed to ship back their profits. Therefore, history would indicate that most of the colonizers were invariably the richer nations and the targets were the developing ones. But, this is not possible today given the informal rules that have been set. However, the vehicle used today is globalization.

ARE THERE ANY PITFALLS?

This is when the multinationals target the developing countries for future growth. These markets are targeted through both the exports as well as foreign direct investment route. Goods are exported to those countries, which are consumerist in nature so as to entice them to taste the goodies. There is nothing really wrong in this approach, as people must have the choice of goods that they want to consume. However, once addicted to these imported goods the country sways to the tune of the developed countries. In fact, an argument advanced by the critics of globalization is in the area of beauty pageants, which though exaggerated is interesting nevertheless. For a brief period, all the Miss World's and Universe's were Indians. It was a way to appeal to the Indian population to become beautiful and to do so they would have to lap up the foreign cosmetics through imports and gradually through subsidiaries set up in the country or through foreign investment. Ironically once entrenched in the country, Indian women stopped being beautiful as the markets shifted to other emerging countries. The protagonists of globalization would say that there is nothing amiss about this strategy and this is plain advertising. And yes, with FDI rules being relaxed, there are more MNCs that are operating in the country and using domestic resources, giving a feeling of déjà vu?

This entire thought process, which is put forward by the antiglobalization group may be a bit exaggerated though there may be some element of truth in it. There is a tendency for a spill-over effect, but can one really question the choice of the people? In the earlier days, colonization was undertaken to exploit the resources of the developing country while imperialism was used to both colonize as well as dump foreign goods on the domestic population. This was done through political conquests and very often the installation of a new government, which could be a domestic puppet of the colonizer. Here, the choice is really made by the people and with the government's consent. But, the critics lobby is fairly strong as can be seen by the vast number of agitations in all parts of the country protesting against this invasion.

A more fundamental question is the exploitation of the resources of a country through specialization. With resources such as oil, ores and agriculture being limited, a serious issue that is raised is whether or not we are actually denuding these scarce resources at a faster rate. After all, if India has to provide iron ore to the rest of the world then its resources would get depleted. The same holds with the USA, which has large oil reserves but would prefer to import from the other nations, thus preserving its own resources. Related to the depletion of resources is the issue of environmental degradation. In the quest to get the benefits of better trade numbers the developing countries could end up specializing in hazardous activities such as chemicals which are actually destroying the environment in their own countries while the developed ones continue to enjoy better standards. There are no clear answers here and governments need to seriously consider this apparently unequal relationship that could be fostered in the course of globalization.

Free movement of investment could be a cause of concern for the developing nations as there is fear of the 'means of production' being owned by foreigners who with their financial clout and technology could sweep aside domestic manufacturers. The same applies in the service sector too where there would be models that do not suit the requirements of a nation. Therefore, free flow of investment is looked at with caution and countries would prefer to take in doses that do not upset the applecart as there are domestic considerations that have to be given precedence. This could be at the cost of efficiency but tradeoffs have to be drawn between efficiency and factors such as employment.

In this context, the role of Mergers and Acquisitions (M&A) needs some mention. One of the strategic management approaches to economic growth is building up scale, which is best achieved through such M&A activity. M&A involves the merger of two or more companies to add strength to the new entity. Such activity involving a multinational company sounds a warning signal as it can mean the predominance of international companies, which in turn may be construed as being a takeover by foreign nations! Of course, today even Indian companies like the Tatas and Birlas have taken over international companies and hence this fear is quite misplaced, but nevertheless important to note.

BACK TO REALITY

At another level with nations getting closer and more interdependent while growth osmosis is steady the perverse could also permeate faster than ever. This is through the phenomenon of contagions that are now more prevalent in the world due to the integration of the world economy. Look back at the Asian crisis. A problem in Thailand and Korea could trickle down to all the other nations too thus costing the world a large sum of money. Russia, which was nowhere in the radar felt the brunt of lower oil prices thus exacerbating the contagion. This may have mattered less to the developed countries, but the developing ones took on an average 4–5 years more to recover from such a shock. Thus, while countries get closer due to globalization they keep reaping the benefits but the reverse motion, too, is contagious and countries with a lower absorption capacity end up as the net losers.

Business cycles are commonplace but when countries get integrated there would be a tendency for the contagion to spread and the cycles to be repeated. It has been noticed that when globalization strengthens, the fulcrum of growth is a different country and if this point loosens it would upset the others to different extents. Again, the ability to withstand these contagions would be different depending on the level of integration of the country with the global economy as well as the strength of the domestic economy.

Curiously, one reason why India got away from the Asian crisis was simply because we were not too open. However, with subsequent strengthening of these bonds the Indian market was not insulated from the subprime crisis as FIIs started withdrawing funds similar to what was seen in Brazil during the Asian crisis. Fortunately, the market did not crash though it was wounded until such time that the US Fed and ECB intervened. When an economy is driven by domestic factors, then the influence of global factors would be limited as the prime drivers are determined within the country. The East Asian economies were particularly, export oriented which was a blessing for the growth cycle but became a burden once things turned sour.

The message here is that globalization though a necessity given the way global politics and economics is moving, is not without qualifications. It is also true that all agreements are more than equal for some countries as will be seen later, which more often than not happen to be the developed ones who wield more influence in such meetings and have similar command over the multilateral agencies. However this picture is also changing with the developing countries trying to put up a combined front to exercise effective countervailing power.

HOW TO TACKLE GLOBALIZATION?

One unpalatable answer is to accept it without qualification, which is a sure no-no for developing countries, especially so since they have formed certain alliances among themselves to debate the issue with the developed nations.

The other way is to resist it, which is possible through these blocs considering that most of these rules are laid down by Europe and USA. There is democratic deficit in all global institutions and alliances, which needs to change. Resisting such influences can be a solution in the short run but never in the long run. As no country is living in isolation there is always dependence on others. We can block imports for a while but suppose we continue to do so while others integrate then the laws of competition would work against our own exports and hence affect growth. As long as blocs of countries resist and delay the process it is okay but ultimately one needs to join the mainstream.

All this leads to the practical solution that countries have to adjust to the changing circumstances and accept the rules that are being written—both formally and informally. Only, there is need to ensure that the rules are fair and tilted more towards the developing nations. The Indian case study is a good example of how we have adjusted to globalization. The unequal law of reforms was imposed on us by the IMF—if it had not, we would have had to do it in course of time in order to remain competitive. Having embarked on reforms, we have done it at our own pace. No one forced us to conform to Basel I and Basel II but we are probably one of the more compliant nations. The economy has been opened up amid a lot of opposition but the gradual process has actually meant that a lot of things have happened without our conscious knowledge that we have been globalizing. The fact that we have looked at the Fed closely shows that even though we take interest rate calls based on domestic factors, we do understand the implications of what happens in the USA and Europe.

Disagreements do remain as is the case with the WTO (to be discussed later), but one can actually think of the world coming closer together. It is also evident in the marketplace where we get Chinese apples and pears; it is just not the Chinese toys that have adorned our cradles and nurseries. But, Indian industry is adapting well enough to stay afloat to begin with before stepping up the accelerator.

The answer is hence one of adaptation, which would not really be enforced on any nation but would make countries gravitate towards a certain line of thinking and will become more pervasive with time.

THE EURO: A GIANT STEP AHEAD IN GLOBAL UNIFICATION

It has been seen that globalization is fast catching on and all countries are being woven into one entity, albeit gradually. Countries have been economically bound together through some very deliberate attempts, motivated surprisingly by self-interest and being driven by the market. While admittedly, there are several reservations, which is again inevitable given the complexity of the problem and the adjustments that have to be made between countries, the contradictions have been brought to the forefront more often than not. Also, the WTO has appeared to be more of a facilitator of globalization and has tried to hasten the process not just through trade involving goods, but also services, investments, ideas and policies. Quite clearly, the movement is in the right direction. The logical corollary is that while globalization integrates countries into a single whole, is it possible to conceive of a single currency for all nations put together? Given this effort, one major development that has taken place in this century is the creation of the euro.

It is important because it involves the idea of a single currency for several like-minded countries which has become popular today and throws open several possibilities in future. It has been a single success story that has been accomplished in the process of global economic integration. The euro's story needs discussion because it also highlights the problems of globalization at the practical level when countries have to be on the same wavelength which is not always possible given the social conditions and the politics pervading their cultures. Nevertheless, it certainly makes one think of future scenarios based on this model.

The Evolution

The dollar (USD) was the standard currency, which has been sought after following the collapse of Bretton Woods in 1973. The USD had become the anchor currency for all practical purposes and the aim of all countries has been to accumulate dollars as foreign exchange reserves so as to keep the balance of payments account under control. To attain this objective, the US has acted as the anchor country with the burden of adjustment falling on it – not by design but by action. This means that if all currencies are linked to the dollar then it is but natural that these supplies have to be made available and defended, which could be done by running trade deficits. Hence, the USA had to take on this role until such time that it was not sustainable, as the benign neglect could no longer be tolerated by the world economy. The concept of an anchor

was always there with the gold standard and the pound serving this role. With the advent of the IMF, the Special Drawing Right (SDR) came into being as a reference currency that would get activated once the IMF came in to lend.

Simultaneously, there were important developments taking place within the European nations that had come together to form the European Union or the EU. Trade relations were eased between these countries and the logical corollary of the success of this measure was the creation of a single currency called the euro. The idea was to have an integrated economy where the nations would unite together to represent a single country with each nation having its own governance and economy but pursuing similar policies across the spectrum. The euro hence, was established in 1999 and actually implemented in physical terms in 2002. Fifteen nations have accepted a common currency called the euro, which has become the medium of exchange and currency for all the participating nations. Movement of people belonging to these nationalities is also now seamless and the currency remains the same for all transactions in all the participating countries.

The obvious question that arises now is how these countries could get together and accept a single currency. Certain criteria were laid down for being a part of the group to ensure that they operated their economies in a similar manner. This was essential because if a country decides to deliberately deviate and say, run high inflation to prop up the economy, then the value of the currency would become unstable as there would be arbitrage within this world. Therefore, there had to be some sort of discipline among these nations.

These conditions were broadly defined for adherence. Price stability was the key to having a successful currency for all the nations and this target was set at 2%. All central banks had to ensure that this target was adhered to and in case it was high, it had to be brought down by suitable monetary policy measures. Further, the government was to be cautious with its fiscal deficit and an upper limit of 3% to GDP was fixed. This incidentally is also what India is following under the fiscal responsibility act. Interest rates were also supposed to be stable and the long-term interest rate had to be benchmarked by not more than 2% more than that of the 3 best performing countries. Further, it was also stated that the public debt of a country should not exceed 60% of its GDP. These were basically benchmarks that were set so that there was some commonality in economic conditions of these countries so as to ensure that all followed prudential policies. Intuitively, it can be seen that if all the countries strictly adhered to these targets, then the system would function smoothly and the central banks and governments have agreed to the same.

The benefits of a common currency are quite straightforward. Transactions costs come down substantially and consumers can compare prices across countries. Monetary stability makes job creation easier and there is free flow of labor across countries. The exchange rate fluctuations that would be present with different currencies get evened out immediately with a single currency. For residents, travel becomes easy as all the visa hindrances are taken care of. All this enables business to become easier as does any kind of M&A activity. The 15 nations in fact serve as independent provinces of a broadly defined country where the rules are laid down on critical parameters.

HAS THE EURO WORKED?

Broadly speaking, the euro has worked even though there are some qualifications. The euro was to grow to become a major contender for the dollar and provide competition to the dominance of the USD. Today, the talk is more on the relation between the dollar and the euro as the overall size of the euro economy is comparable with that of the USA—something none of the individual countries could ever hope to achieve.

The unification of the currency has of course had some hiccups with some countries wandering from the path laid down. Italy, France and Germany have all at some point of time created problems for the group with high inflation or deficits. Labor issues are important in some countries and governments tend to change and promise certain benefits to the people, which could lead to deviations from the stated path.

But the more interesting facet of this development has been the economic tussle with the USA, which has also been a problem for the entire global economy. The USA has been living beyond it means. Consumption is very high and savings low. People are borrowing to consume and this is in the consumer and housing segments. This has led to imports exceeding exports resulting in a high current account deficit. A high deficit which is not supported by capital inflows necessarily means that the dollar has to depreciate, which it has been doing more often than not since 2005. This creates problems for the entire global economy because as the dollar depreciates there is an in-built advantage being offered to the USA as its export competitiveness increases. On the other hand, the euro area in particular has to make the adjustments with an appreciating currency and hence has to face the problems of appreciation, which is normally associated with higher inflation. So, the burden of adjustment falls squarely on the better-managed economies. The fall in exports on account of appreciation could on the other hand slow down

their economies and this has to be countered by intra-regional trade or search for non-US markets.

Ironically, the US deficit is a curious one because as the country overspends the other nations build up huge dollar reserves, which in turn are invested in substantial quantities in the US Fed bonds. This is so because these bonds are considered to be safe investments for central banks. Hence, the entire chain is being reinforced by one another as the virtuous cycle and recycling of funds is taking place. While some countries are investing in the euro rather than the dollar, the transition is still slow either due to inertia or the act of getting used to holding the new currency.

The same problem has proliferated across other countries that have dollar surpluses too. Higher inflow of foreign exchange invariably causes monetary expansion, which in turn could have an inflationary impact. To control this potential stringent action is being taken such as sterilizing capital inflows through monetary contraction. This has led to higher interest rates, which in turn can affect the growth path of the economy even as the inflation objective is well met.

The euro model is definitely working though there are no talks of similar arrangements between other groups of countries. At times, one has heard of having a South Asian currency based on the SAARC nations. However, given the differing levels of poverty, economic growth and growth potential as well as antagonistic politics, this is very unlikely. This is so because of the unlikely possibility of convergence in economic indicators as well as mutual economic benefits. For such agreements to work the countries must have reached a certain threshold level of comparable economic development. May be it could work with the Asian Tiger economies, though a precondition for such an alliance is the existence of democracies, which would be a roadblock even here. Euro was successful because of like-minded countries pitching together for a union.



"Will the rich world act to save the poor? The cynics say no. Why should we? Poverty is not our problem; it is theirs. What can the poor do to us, or for us? When has any country done anything out of altruism for others? How can we fight poverty when we have to fight terrorism? How can politicians ask the public to give more for Africa when the public is already feeling squeezed economically? These are questions I hear daily."

Jeffrey Sachs

Global trade has always been a bone of contention; and while theory extols the benefits from freer trade, there are always restrictions put in place by countries to different extents. Trade is hence never really free in the sense of there being absolutely no restrictions—it is just that some countries allow more freedom than others. No country would like all goods to come in freely as it affects their sovereignty and domestic enterprise and also puts pressure on foreign exchange reserves. Ideally, one would like to export as many goods as possible that are not consumed in the country to earn dollars or euros. Imports would normally be restricted to essentials and there would be efforts to reduce these inflows through a variety of means. There are some compelling arguments put forward for such kind of protection.

WHY PROTECT YOUR OWN TURF?

The first is that countries should be self-sufficient in certain goods even if they are not very efficient. Normally agriculture falls in this category where countries would ideally not like to import food products unless they cannot be produced in the country. The reason is quite simple. Essentials have to be produced by the country or else in times of a crisis

they could get stuck with not having the product. The self-sufficiency argument has been used by several countries in order to produce goods even when there is low efficiency in their production and has been coupled with restrictive policies to control the flow of imports. While the logic starts with agriculture, it gradually spreads to even non-essential goods as various interest groups lobby with their governments to have protection provided for their products.

Alternatively, one may not be in a position to have the foreign exchange to procure these commodities. Therefore, they would tend to produce these goods even if its means being inefficient. The result very often could be high deficit financing where currency is printed to support such activity. Besides, it may not also be politically correct for a country to tell its people that it is importing essential commodities, as there is a credibility risk carried.

The third is the more popular infant industry argument. Certain industries, which are in their infancy need to be protected against cheaper imports or else they will not be able to grow. The argument here is that an industry is young and new and cannot survive against competition, especially from outside where the goods would have an unfair advantage. If imports are allowed to come in without any restrictions the entire industry could be jeopardized, which may not acceptable. Therefore, restrictions are placed on these imports. Some countries have used this argument continuously as there are no time lines set for the infant industry to grow. Very often even after two or three decades, the same argument continues to be used.

The fourth is a conscious decision to go in for import substitution where a country deliberately tries to substitute imports with domestic production. The argument is similar to the first one though the goods involved may not necessarily be essential. For example, just after independence in the fifties and sixties India went in for such a policy where import substitution was combined with export promotion as a joint strategy for saving and earning foreign currency. This kind of an argument may have made sense when countries generally worked within a limited perimeter of vision. But with integration of countries, this argument may not be too valid. Further, if all countries had such a dualistic approach then trade would never take place.

The fifth is the retaliation argument where countries go in for protection because others are doing it. This cannot be contested on logical terms but is not sustainable and someone has to give in. One reason why trade talks take years to accomplish is that these arguments are always being put forward all the time and cannot really be countered. After all, if some

other country is trying to take advantage of the rule of free trade and putting the counter-party to a definite disadvantage, then protection is probably justified. So we have a system where the US imposes high duties on imports from EU because the EU is imposing high tariffs on US goods.

An extension of this argument is that countries make use of unfair practices to inundate the host country with their goods. Here, the explanation is that goods are sold below their cost and is called dumping. Now it is very difficult to prove that there is dumping. One way of doing this is to under-invoice the product. Alternatively, one can suffer a loss to begin with before retrieving volumes later when the goods have become a habit in the host country. What about situations where there is no deliberate attempt to dump, but goods become cheap because of inherently cheap resources? A garment produced in India is cheaper than that in the USA because of cheap labor. Is that a comparative or an unfair advantage? The developed countries feel that India and China have an unfair advantage because they pay labor a low price while the latter say it is a comparative advantage. In fact, there is merit in the Indian argument because low cost is the crux of comparative advantage. In the same breadth, the developing countries could argue that the developed countries have an unfair advantage of cheap capital!

HOW TO STOP THE FREE FLOW OF GOODS?

While these justifications are valid to a certain extent, they have been used ultimately to block the free flow of goods. Trade barriers can come in different forms. The most common one is through tariff rates. Very often they are increased to the extent that the domestic industry is protected and the cheap imports become expensive or at least come on par with the domestic price. This is achieved by having tariff rates or custom duty rates that are very high.

The other way is to simply ban the import of certain goods on strategic grounds such as being of national importance, which normally includes atomic material or at times even some food products. A modification here is when quotas are introduced where there are restrictions on the physical quantity of the good that can be imported by the country or by a single entity. The justification can be that since forex resources are scarce one should go slow on imports of unessential commodities and hence controls are imposed on commodities, such as on gold in India at one time.

Lastly, the government can provide subsidies to certain goods especially in agriculture so that the commodity is produced even if it is uneconomical for any of the reasons mentioned. Farmers for example, may be asked to produce a crop where the government provides large sums of money to do so. This way the production levels are kept high even though they can be imported. Further, such moves also tend to depress global prices and other countries cannot compete with their products as the price advantage disappears. Subsidies are also provided directly to exports, to make them competitive. Hence, a combination of these measures could ensure that goods do not move freely between countries and that the principle of comparative advantage breaks down.

Trade wars have been fought on these grounds and the tariffs, quotas and subsidies have been fixed by countries based on their own priorities with little alignment with others. At times countries get together to form an alliance to trade where special privileges were assigned to certain goods from each country, and several such trade negotiations have taken place. This in effect means discrimination between goods coming in from other countries and those from the alliance forming country.

Given different motivations of countries, there is bound to be a lot of mismatch in trade actions. The basic principle has been that every country would like to export more and import less to the extent that it is possible and would work towards this end. Again, every country would also like to preserve their own precious resources (crude oil for instance) and would like to import them at the lowest price. They would like to export their goods where they have an advantage at the highest possible price to earn dollars or euros. As long as they are free countries there are basically no compulsions except moral ones, to compromise on any of these principles.

Under these conditions getting all countries to follow some generally accepted principles or rules is always going to be a difficult task. The attempt to do so is therefore laudable and the bumpy path taken by the WTO needs to be appreciated for these reasons. In fact, the WTO, though not yet successful, is probably the world's largest attempt at economic integration and goes beyond the other successful integration of the euro countries. It is against this background that any discussion on the WTO needs to be viewed.

THE WTO

If all countries were to work on the principles of self-interest as outlined earlier, then free trade would hardly take place and would do so very

reluctantly and in a staggered manner. As a corollary, globalization would never really have caught on. The fact that it has, means that there has been a lot of cooperation between nations, which may not have been too overt. There have been attempts to bring about this integration through trade discussions, not just bilaterally but at the global level. The initial such attempt was the General Agreement on Tariffs and Trade (GATT) in the fifties when the first attempt was made to bring countries on a common platform to decide on certain rules of the game. The focus was on tariffs and more on manufactured goods. The basic principle was the Most Favored Nation (MFN) status. The concept of MFN is actually quite a misnomer because it actually means that a country, which agrees to this principle will not discriminate between goods being imported from all other participating member countries.

GATT began on a quiet note with limited participation and enthusiasm. There was a general sense of suspicion and countries preferred to watch and see what the others were doing. It was based more on what approach was taken by others and individual actions were dependent on the lead taken by other nations. There was a major event on trade negotiations in 1986, called the Uruguay Round where the member countries met at Punta del Este and which concluded in 1994 at Marrakesh where GATT was replaced by what has come to be known as the World Trade Organization (WTO).

The WTO, which succeeded the GATT was to drive forward the benefits of freer trade with the elimination of trade distortions. Experts had different calculations on the gains from such trade with most of the benefits supposedly going to the developing nations. In fact, ideally the thought was that the gains would increase even further in case services were also included in the ambit of negotiations since services have become progressively more important in today's global economic relations, with this sector dominating the economic profile of both developed and developing countries. The benefits were supposed to be a multiple of those on only goods, and could be as much as 2–4 times. Therefore, a much broader view was to be taken on trade as a whole.

Some of the Rules

The agreements were quite elaborate and only the salient features that have led to the present controversies need to be highlighted. To begin with countries were to bind their tariff rates and this was specified as x% of goods would be bound by fixed tariff rates. More simply put, to begin with if there were 100 goods that were traded, a country had to bind say

70% of these goods to a tariff rate of say 100%. The goal was to bring them down to zero in course of time and hence, a phased reduction in tariffs was recommended with certain time lines being specified. The bound rates for developed countries would be based on the actual rates prevailing while for developing countries it could be at higher rates, thus providing an advantage to them. These rates as well as the proportion of bound items were to be committed to by the members. There was something called modalities which were outlined for drawing up time schedules, formulae for calculating the tariffs as well as dealings with both tariff and non-tariff barriers.

Agriculture was a major focus area and the direction was quite simple. There was need to preferably use only tariffs, which meant that non-tariff barriers had to be removed and the process of re-tariffication had to be introduced. Subsidies as a rule had to be discouraged and reduced and there was some re-categorization to be done. Textiles were ruled by a different set of agreements called the MFA (Multi-fibre Agreement), which were to come to an end in 2005. Basically, under these agreements the quotas for procurement would come down essentially from the USA. They had quotas set for import of textiles into the country from different nations. From 2005 onwards, these were to go and there would be no such restrictions and all countries could compete for the US market. This would lead to better competition between countries that were exporting textiles, which were generally the developing countries form Asia.

Agriculture was to remain controversial, as no country was willing to budge an inch. For instance in Japan, the tariff on rice at one time was as high as 1000% while it was 500% in the EU for several agricultural commodities. Subsidies on the other hand were highly distorted. Here the government paid the farmers large sums of money to produce for domestic needs and by keeping prices artificially low, were able to keep out imports from developing countries. The WTO brought about a three-fold classification of subsidies under three headings:

- Green box where subsidies did not cause any trade distortions
- Blue box where subsidies were linked to production limits and did not distort trade
- Amber box where subsidies were unnecessary as they worked against the operation of free trade

Clearly, with such a classification, it was easy for countries to justify subsidies under the green and blue box and rarely would anything fall under the amber box.

THE REALITY

Subsidies in agriculture have escalated to become a major issue of dissent. In case of cotton for example, the US government subsidizes the farmer to a very large extent, which keeps prices down. This in turn militates against the exports of countries like India, Pakistan, Bangladesh and those in Africa, which have an inherent advantage here. These distortions hence work against efficiency and need to be corrected. The subsidizing countries justify them on grounds of being essential and in sync with the WTO boxes, while the developing countries feel otherwise.

The issue of tariffs on industrial goods ran into a problem. All high tariffs were justified on grounds of 'tariff escalation'. Under the rules 'tariff escalation' was permitted on goods that went up in the echelon of value chain. Processed goods had to be protected with higher tariffs while the inputs going in would be subjective to negotiated low rates. Invariably, countries could get away with higher rates and effectively block imports or make them more expensive than domestic goods.

Services, etc.

Services too were to be brought under the rules of the game and they were defined under four modes:

- Mode 1 Cross-border supply of services, such as outsourcing
- Mode 2 Supply of services in foreign countries, such as tourism
- Mode 3 Foreign presence of domestic entities, such as banks and insurance companies
- Mode 4 Movement of persons across borders

Looking at these four modes, one can see that Modes 1 and 4 were to be controversial because the developed countries would not like to outsource services to the developing countries as this has a negative impact on their own employment situation. Also, the freedom to physically move over to a developed country for employment was not acceptable as a large number of refugees would like to move over to these prosperous countries under these arrangements. Mode 2 has little controversy and countries are quite open to encouraging the same. Mode 3 has implications for developing countries, as they are the ones that would want to protect their domestic services and keep foreign services out as they could quite easily push aside the domestic players with their own financial and technological strengths. The summary of these thoughts was that while developing nations wanted inroads where they were

stronger i.e. manpower, the developed countries would like to take over control of several financials services in particular which the developed nations would prefer to keep closed.

Beyond Goods

WTO then went beyond the realm of goods and services to include also Intellectual Property Rights, or IPRs as they are called. The idea is that there are certain quantities that are neither goods nor services but fall within the realm of ideas that can be commercially exploited and implemented which involves a lot of money in terms of time and research resources. If the same thought is now plagiarized and reintroduced by someone else then the entire effort of the inventor is vitiated. This has become progressively more relevant in the field of medicine. The argument here is that when a new drug is manufactured a lot of research and capital goes into bringing it to the market. Sometimes it could take decades to bring the product to the commercial market. But once in the market, the same drug can be dissected in detail and replicas made in other countries and sold at a lower cost. In fact, going ahead, the same product may be exported to the originating country at a lower cost and drive the inventing company out of business. Hence the product needs to be respected and patented, which should be acceptable across the world. Here the thought is that the right is reserved for a specified period of time after which others may replicate it. The WTO spoke about having agreements relating to these IPRs.

The view of the developing countries however was different especially when it came to discussing IPRs for drugs relating to say, HIV. They were being produced and exported to countries in Africa and Asia at a very high cost, which made them unaffordable for the majority of the patients. The same drugs when replicated in their own countries or other developing nations could mean a supply of the same drugs at a fraction of the cost because as mentioned earlier, they would save on the cost of experimentation which could go into several millions of dollars. There was hence a moral and humanitarian issue at the discussion table. Therefore, they felt there was a very strong case for not agreeing to these agreements.

The counter argument here was that if this was the case, there would be little incentive to spend time and capital on valuable research if the patents were going to be infringed anyway by the other nations. As a sweetener, in one of the rounds of discussions it was agreed that drugs for critical diseases such as HIV, AIDS, tuberculosis and malaria,

exceptions could be made on the grounds that these were life threatening diseases. Quite interestingly, when SAARS came into the picture in 2005, could the same principle have been applied? There would always be new diseases requiring attention especially if they were of epidemic proportions. How would WTO react to them? These questions remain unanswered even today.

Further the issue of IPRs becomes a bit sticky since it can be extended even to agriculture where several traditional formulations using India specific ingredients such as spices, turmeric and even certain strains of rice were in existence for ages, but were formally picked and patented by western firms. A lot of this knowledge already exists informally and merely because it has not been patented first, would put the inventor at a disadvantage. In that case are we giving the benefit to the person who was quicker to patent the product/formula merely because he was better informed about the processes? In this context, turmeric and basmati rice are two products in India that are India specific but there were cases of foreign firms filing patents and claiming them to be their own. Further, most of the Indian traditional formulations involving *ayurveda* for example, have similar undertones. How does one then resolve such issues? Therefore, TRIPS remains unresolved with the two sets of nations being unhappy over these clauses.

MORE PROBLEMS WITH DISCUSSIONS

Every round of discussion invariably leads to further problems and fewer solutions to existing issues. There was again a round of agreement in Singapore, which did not resolve issues but brought up four other issues called the Singapore issues, which added to the imbroglio and created further dissent. The first related to *investment rules*, where quite evidently, the developed countries were eager to have greater access to the other markets, which as mentioned earlier involves definite streaks under globalization. The developing nations have been open to such investment but preferred to have their own say on such issues. The second was trade facilitation where it was pointed out that there were a number of physical barriers to trade which went beyond the rule books laid down by individual governments. UNCTAD had found in the early part of this decade that an average trade transaction would involve over 20 parties, 40 documents, and 200 pieces of data with 60 of them being re-keyed in at least twice. Clearly, this results in inordinate delays in completing transactions and needs to be lowered. These two issues were the easier ones where there was some noise made about investment while trade facilitation

was acceptable, though countries always defended themselves saying that until such time as their own infrastructure including processes improved they would continue facing such problems.

The other two issues were more contentious. *Competition policy*, which means different things to different countries, was advocated. The developing countries could see this as one where they need to have policies, which ensure that there is no build up of monopolies in the country and which would mean that it is a safeguard against predatory takeover of their own industries/firms by foreign entities through the investment route mentioned earlier. The developed countries would like to interpret these as measures which ensure that there is free competition and that the governments would ensure through these policies that there is fair and free competition so that there are fewer barriers to trade and investment. This becomes pertinent especially since the corporate world is witnessing a series of M&A activity, which transcends geographic divisions. Hence investment issues get intertwined with the trade issues.

Lastly, government procurement came under the scanner where it was advocated that again the government, which is always the largest spender on projects in any country goes in for the best procurement practices where all parties including the foreign ones stand on the same footing. This would obviously not be acceptable to the developing world because the western countries by virtue of their superior economic conditions would be better placed to bid on more competitive terms, and also probably outbid the domestic players so that they could get a stronghold in these countries. This measure is probably a very direct manner of making inroads into any market, which makes it a sensitive issue for all recipient countries in particular. In fact, even within the country the government has certain clauses that permit weight to be given to the public sector vis-à-vis the private sector in the form of purchase preference. As they are unwilling to budge on this criterion, it is going to be even more difficult for the government to treat foreign parties on a similar footing.

HOW ELSE TO STOP FREE TRADE

As seen earlier, what started with freeing trade went across new areas such as services, investments and policies. There are some even more interesting issues that have been brought up especially by the developed countries, which they view as deliberate attempts at thwarting their own chances in the global trade arena. These issues are quite fascinating really as it means that experts have really looked at all possible ways to put spokes in these agreements.

How does one for instance take care of goods produced in say, the developing countries where labor is cheap because the laws are very liberal? Let us look at the textile industry in India for example, which employs labor that is paid just above subsistence and ends up producing cheap goods that have a competitive position in the world market. The Chinese case is even more glaring because the system of prices may not always truly reflect the economic value of the products. Added to this bias, there are numerous sweatshops that are operated under the aegis of the government. Here, there would be the tendency for developing nations to gain. How does one then tackle this issue? This may not really be a valid point because the developing countries could turn around and say that capital is cheap in the west because of the surpluses and hence gives them an unfair advantage as the same laws of economics are reflecting the price for labor as well as for capital. But, the use of cheap labor has been quoted as providing these nations an unfair advantage and has been used very often by the developed countries.

The other debatable point is the environment. If a country is damaging the environment and competes well in the market, is it a right thing? The entire world may be affected perversely by such environmental degradation that it ceases to be a localized problem. Therefore, the issue of environment cannot be treated as a localized one with the thought that 'we are only spoiling our environment'. Also, the impact may not be now but much later when the entire world could suffer on this score. How does one ascribe a cost to this factor, which again gives an unfair advantage to other countries?

Another issue that is being raised by the developing nations this time is the sanitary and phytosanitary labels being raised by the western world. It is known that the developing nations are strong in the production of primary products, especially food grains, fruits and vegetables. They do have the ability to export large quantities of the same to the western nations. However, there is a new kind of barrier that is imposed by them called sanitary and phytosanitary conditions, where certain goods are not allowed because they could bring in some strains of disease into the country. Thus, hygiene is the excuse used by nations to keep out imports of these products with the explanation being that they do not meet the hygiene specifications laid down by the host nation. How does one counter these arguments? This is critical because while the basic premise here is admissible, one can never really prove whether the reasons for rejection of goods are genuine or not. Going a step ahead, countries can set norms for the fertilizer/pesticide content in the agricultural product and effectively block the entry of these products. At times, countries tend to search for the quality of the developing country and place a higher

standard for acceptance. Countries like New Zealand, as a rule ban the entry of all foodstuffs, while the USA had a ban on the import of mangoes for a very long time.

Further, another way of pushing back goods from the developing countries is on grounds of 'rules of origin'. The rule goes on to say that the MFN status holds along with lower rates provided the entire product is produced in the country. In case parts are imported then the same benefit may not be extended and the full rate may have to be paid, as this would imply double counting of the same. Therefore, to get the benefit one has to make sure that the entire good is produced in the exporting country. For several finished products such as machinery, some parts may be imported from other countries and then reassembled into the domestic product. If this is done then the importing country could disqualify the product from the MFN rule and apply a higher rate. As can be seen here, there is an inherent contradiction here. With progressive trade, a large number of goods are imported which are used in the production of other goods. This means that there would be a progressive tendency for goods to have some import content which will militate against the MFN status of these goods. On the other hand, the exporter may also tend to hide the fact that the product produced is not fully indigenous. This again becomes a contentious issue, which will be hard to resolve.

Safeguards and dumping duties are other ways of keeping imports out. They are legitimate means but may not always be used in the right spirit. Safeguards are supposed to be temporary restrictions but could be prolonged to become more or less permanent. Let us assume that there are some temporary problems in the country caused by say, an avian or bird flu. A temporary import of animal products can be made permanent with delays being justified by terms such as 'investigations'. Countries can go one step further and impose anti-dumping duties on grounds that the exporting country is producing goods and selling them at a price that is lower than the cost of production. This is a predatory measure which is used by countries, but really there is no way of proving it. Russia was accused by India in the late nineties of dumping steel in the country but it will be difficult to prove this. As mentioned earlier, the labor issue creates a problem because if labor is valued at the market rate, then the price of goods would go up and the so-called price advantage would disappear.

Getting Subtle

There are also other subtle ways of distorting the trade picture, albeit quite covertly. The first is through strong regulation. The USA does this

to effectively make it difficult for say, an Indian banking entity to commence regular banking operations. This way there is some kind of rationing or screening of entrants where preliminary conditions can always be used to keep aside what one does not want to have. Or, they could make the regulatory compliance so difficult that the cost could be seen as a predatory factor.

India for example, is considered to be one of the tougher places to do business given the number of clearances that are needed. The recent World Bank report on Doing Business says that as a rule, developing countries tend to be more burdensome when it comes to doing business. This can be an effective deterrent to foreigners who are planning to set up shop here.

The other way out is providing subsidies directly to exports and punishing imports, through exchange rate management. Trade flows may dictate that the currency must appreciate. When this happens imports increase and exports fall. But, if a country decides to intervene and ensure that the currency does not appreciate, then exports receive an implicit subsidy while imports become dearer than they would be in case the market rules prevailed. Nobody can question it as countries can always justify this on grounds of domestic policy and the need to protect against excessive monetization and hence inflation. Therefore, this is a perfectly legitimate way of providing an export subsidy and making imports dearer by progressively impeding the exchange rate determination process. Today, most countries prevent this kind of appreciation, as it would affect its own GDP growth prospects, and it is accepted today that growth and inflation are two major concerns for any country and domestic policies have the right to fine-tune both these variables.

What if I Do Not Follow?

A pertinent question to pose here is, what would happen in case one broke the rules? The answer is really 'nothing'. There is no institution that can impose fines and at most, there can be a severe reprimand. As such cases are hard to prove, there would be a tendency for moral suasion and possible threat of retaliation by the group, but it has been seen that if the country is a super power like USA or China, it may not be feasible to take such action. Therefore, coercion through suasion appears to be the only way out. Dispute resolution has been an unresolved issue and nations are still finding it hard to find a way out. As seen before, there are very subtle ways of circumventing these rules of the game and there would be very few blatant deviations. Bu, to the extent that they exist, they need to be officially resolved, as the present routes are not very effective.

Where are the Blockages Now?

The division between the two blocks is quite clear and each group is sticking to its stance. The subsidy talk has been going on but the west will not budge. Take a look at the cotton issue. USA subsidizes its cotton farmers and global prices fall. As a result, the farmers in Africa are not able to compete in global markets and they go bust. Farmers in countries like Norway and Switzerland get 2/3 of their income from subsidies and this is up to ½ in Japan and 1/3 in the EU. For sugar and rice, subsidies account for around 80% of the income of farmers. The aggregate subsidies given by the US, EU and Japan, which are the leading nations in the world, account for 75% of sub-Sahara GDP. Even more interestingly, an average European cow gets \$ 2 subsidy a day, which is more than the official poverty norm drawn by the World Bank. In India itself, a quarter of the population are below the poverty line, which means that these cows are getting subsidies which are more than what 250 mn people in a country like India are earning per day. Something definitely looks amiss here.

The western nations want to make inroads into the developing countries in services as well as investments. This is slightly more vexatious for the host nations as these countries are service driven and would have a local industry problem in terms of survival if such flows are allowed without any limits.

Lower tariffs have also been asked for on goods, with the reciprocity condition being applied. This means that if a developing country lowers its tariffs for a developed country, the same benefit of tariff would be offered here. But honestly, is this a fair condition? Do the developing countries have the wherewithal to actually have the quantity and quality of goods, which can be exported freely to these nations even if they are not being subsidized? The initial conditions differ greatly and this makes the transaction more unequal. A good example is infrastructure. Do these countries have the requisite infrastructure to bring these goods to the ports, which may or may not have the ability to handle these cargoes? This is what Stiglitz terms as asymmetric agreements, which are being fostered under this umbrella.

But looking at it more pragmatically in an unimpassioned manner, if one is talking of free trade and market driven economics, one cannot expect the western nations to act out of philanthropy as all acts of kindness should be diverted through aid, which anyway flows between these groups of countries. So there is a case of saying that where trade has to take place on grounds of market competitiveness, there should be no distortions and the terms should be fair on both sides. Somewhere, both the groups need to compromise on their rigid views to move on in these negotiations.

WHERE LIES THE ROAD AHEAD?

The discussions would carry on and bargaining would get tougher. The developing countries now have sufficient countervailing power to enforce on the western developed countries. A solution would gradually flow and it would be a fairly arduous negotiation. Meanwhile, there would be the tendency for the proliferation of bilateral and regional trade agreements, which will bring like-minded countries together to further trade relations. The concept of regional trade agreements raises some interesting issues. Are they in contravention of WTO? Regional trade agreements provide bilateral benefits, which may go against the MFN status that has been accorded to the WTO members. Now, the WTO accepts regional trade agreements, which means that there is a contradiction to begin with. In fact every time a WTO round fails, it ends up with more countries getting into regional trade agreements. Some of the more famous ones that are in operation are the EU, EFTA, NAFTA (between USA, Canada and Mexico), ASEAN, SAARC, etc.

In this context, it needs to be examined and debated whether India should be part of any such trading block. Presently, the SAARC is the only active trading alliance that India is a part of, while ASEAN appears to be the other one albeit, after much haggling. There are other such minor agreements with Sri Lanka. Ideally, there is need to get into one of the more effective regional trading groups where India can gain from concessions being given bilaterally between India and the rest of the group. The preconditions would be that the other nations need to be equally if not better developed, have common economic interests in the goods and service being traded, proximity to lower transport costs and with similar minded governments and politics. It should not be a case where the group would tend to benefit more from India than the other way round. While admittedly, rarely are such agreements evenly balanced the ratio could go up to 60–40 rather than 80–20. Keeping these conditions in mind, ASEAN appears to be a better alliance than SAARC, where the benefits are more likely to be one-sided in favor of the other SAARC nations.

Getting countries to agree to anything was always going to be a tough task considering that over 150 of them are involved with these agreements. Countries have fought an acrimonious battle with a distinct schism developing between the developed and developing nations. The two blocks today are not willing to budge on their positions with each set stating that they have already given in more than they have got in return.

These were broadly the issues that have been debated quite vociferously by the nations with few conclusions being reached. This has been the

classic case of game theory in action where every country or group of nations would like to gain at the expense of the other and would make a move based on what the other would do. It is not surprising that solutions have been few and very often we end up hearing that the talks have failed. But, the effort has been rally commendable and while it is easy to sit back and criticize the WTO as being generally a non-success, it must be recognized that getting all nations to agree to all the textbook ideals was always going to be a major challenge. The fact that we have come this far in a number of areas is significant and needs to be applauded. Surely, with time the other issues would get resolved as countries recognize the overall benefits to be had from open trade relationships.

IS GLOBAL INTEGRATION GOOD OR BAD?

Just like in the movies where one wants to identify the good and bad guys, so is it with economic issues. While the gains from globalization are enormous, there are some threats that have been spoken of. Also, all these arrangements are asymmetric in nature with the major benefits apparently being diverted to the more developed countries. In such a situation it is compelling to address this issue.

A single currency is probably the epitome or ultimate state of globalization where there are no physical barriers to movements of goods, services and people where the group countries also follow a fixed economic path and this discipline is strictly adhered to. The question that really arises is whether such closer relations between countries can actually foster a contagion with all countries being affected by single actions or disturbances between countries. The answer is both a yes and a no.

The 'yes' part can be seen in case of the Asian crisis of 1997 onwards where a single disturbance in a country actually affected all corners of the world for different reasons. The same holds for the sub-prime crisis because some sort of indiscrete lending in the US has had an impact in the euro zone as well as UK, where a tough stance was taken to begin, but which got diluted as the crisis spread and the monetary authorities were less keen to encourage a possible contagion. Therefore, a united global world becomes vulnerable to any such disturbances in the financial markets, which probably are the ones that are integrated to a larger extent.

But, on the positive side the reverses suffered by the world economy due to any disturbance has been more moderate for a variety of reasons. To begin with, while USA is still the dominant economy in the world, which drives all economic forces, other economic blocs have emerged which ensure that there are alternatives which exist that can be used as a

cushion. Hence, the euro zone for example offers markets and opportunities that are comparable to those offered by the USA. China is a major force that again is guided a lot by the government, which in turn ensures that growth would take place independent of what happens in other countries. The East Asian countries are another group of countries that have increased their intra regional trade, thus buffering to a large extent any disturbance in the US economy. Countries like India continue to be driven by domestic factors, which effectively insulate us from any external shock. Therefore, quite clearly, there is a change in the economic power balance, which ensures that a recession in the USA does not lead to the same in other countries.

The other major development in this area is the macro theory approach that has been adopted by most monetary authorities. Governments and monetary authorities are much more tuned to what is happening around the world and the possible impact on the economy and have hence managed to effectively tackle issues like growth and inflation. Monetary policy has to be forward looking which means it has to anticipate what is likely to happen and should work on that basis, which may not always be accurate. Therefore, a proactive stance taken by them has ensured that these authorities have considerably buffered the negative impact of a shock. The government of India for example controls the administered pricing system for oil products. Hence, even as oil prices climb, inflation within the country is protected through this safety net. Interest rates are raised in advance to quell inflation and such moves automatically bring down inflation. In economics, as mentioned earlier, expectations are more important than the event and are also self-fulfilling. The trick is to beat them by countering them effectively.

Hence, it has been seen that the oil shock that one is going through today has had less of an impact on global economic growth or inflation as countries have protected themselves effectively against these shocks. This was not the case in the early and late seventies when the first two shocks drove the global economy into a recession with inflation climbing new heights.



Asian Crisis

"The biggest lesson from Asia's troubles isn't about economics; it's about governments. When Asian economies delivered nothing but good news, it was possible to convince yourself that the alleged planners of those economies knew what they were doing. Now the truth is revealed: They don't have a clue. Asia's growth will probably resume, driven, as before, by education, savings, and growing labor force participation. It probably won't be as fast as it was. No doubt Asia will eventually account for most of gross world product—but only because most human beings are, after all, Asian."

Paul Krugman

The Asian crisis was probably the first big economic problem, which afflicted the entire world in the varying degrees for different countries. The world economy had gone through crises situations since the Great Depression of the 1930s such as the collapse of the Bretton Woods, oil crises in the seventies, the Latin America debt crises, S&L crisis of the USA, the Wall Street Collapse of 1987 and so on. But, the impact of most of these crises was generally localized and the adverse impact was restricted to a group of nations for a limited period. The Asian crisis was hence very significant and different as this was the first time that countries which were supposedly the best run nations that actually gave nations like the USA, Japan and Germany a run for their money had actually collapsed like a pack of cards. A collapse would not have been new as several countries have been through such trauma earlier. But, this time the transmission process was fairly harsh as it affected even the countries that were doing well and had good governance practices in place—this lead to the coining of the term 'economic contagion', which is now widely used in economics. The reason was not that they were truly localized but that the process of globalization had not caught on. Today

with globalization, where the entire world is getting economically interdependent, any act of indiscretion can have a lasting impact on the others. This story is hence important to understand.

HOW DID IT ALL START?

The East Asian economies comprising among others Thailand, Korea, Malaysia, Indonesia were the fastest growing economies in the world in the late seventies, eighties and nineties. They were also called the Tiger economies because they were the ones that spearheaded the growth process by providing cheap goods, especially electronics including semiconductors that were exported to the rest of the world. The more sober term used for them was the Newly Industrializing Countries (NICs) as they had the potential to challenge the strength of the western nations. The goods were cheap and the quality comparable to those of products in the west and therefore it was not surprising that they were able to really dominate the world market as their exports flooded the US streets. Their economies grew by double-digit numbers and were primarily driven by exports. In a way, their emergence bridged the divide between the developed and developing nations as they created an intermediate set of countries, which were poised to overtake the developed nations in course of time. The credit rating agencies such as Moody's and Standard and Poor rated them very highly and it was not surprising that a lot of foreign investment flowed to these countries. This was achieved under a regime of stable exchange rates. Their growth paths served as role models for other developing nations who could hope to grow by pursuing an export led strategy with suitable reinforcing economic policies.

As these countries were doing well in terms of growth a lot of short-term capital flowed in quite freely as there were a large number of takers for such funds. As was quoted by Jeffrey Sachs, "In Asia, a lot of successful economies that had been living on their own saving, decided to open up their financial markets to international capital in the early 1990s. So here were countries doing quite well, but they decided they'd borrow a bit more and do even better". Besides, the rating agencies had vouched for their financial soundness and it was expected that countries which were booming will never really default on repayments. Such flows helped to finance growth and there was implicit confidence in both sides of these flows. Normally, large short-term funds would be looked at with suspicion but as the boom was continuous and there was no reason to suspect that something was amiss, these funds found a special place in these countries. Now banks in Thailand, borrowed money in dollars and converted them

into baht and lent the same money primarily to the real estate sector, besides industry. The real estate boom was amazing as this sector received relentless boost from the financial sector. The real estate boom hence sounds familiar even today, as was the case with the sub-prime mortgage crisis of 2007. A fall in the real estate market started the panic. Borrowers could not repay and hence defaulted. Related industries also went into a loss as demand fell for their products such as steel, cement and so on. When they defaulted, the financial sector went into a spin with the non-performing assets increasing. In 1997, the government was committed to defending the exchange rate where the baht was fixed against the dollar and as these reserves got depleted, the currency had to fall. There was no other option really.

Similar scenes were witnessed in Korea where a new blend of crony capitalism thrived as bankers lent to their own companies. This was bad governance, but came to the fore only when the crisis erupted. Banks lent money to their own companies without any proper due diligence. The companies were not managed well and were family driven. Once again a failure of the corporate meant the failure of the bank, which had borrowed money it could not return, leading to the creation of more NPAs and weakening the financial system.

The problem really erupted when the government could not defend the currency and the baht fell against the dollar. When the baht (or won in Korea) fell, the financial system went into a spin since they had to get more local currency to repay debt reckoned in dollars. Investors now wanted to move out and started converting the local currency into dollars, as there was loss of confidence. The lenders asked for their money back as the demand to withdraw dollars increased because lenders took fright to the declining won or baht or ringitt (Malaysia). Investors no longer wanted to hold on to these slippery currencies, which added to the ado. Those who stayed had to be paid a higher interest rate as risk cover. Interest rates hence went up which in turn affected the already declining economies.

HOW THE INFECTION SPREAD?

With these countries going into a slide, it affected commodity prices elsewhere. These 'Tigers' were the fastest growing economies and demanded a lot of goods from other countries, especially raw materials. Lower demand from this section meant that prices of gold, copper, aluminum, crude started falling rapidly and this was passed on to the rest of the world. Large capacities had built up to feed the ever-growing

demand and suddenly the decline of these countries led to excess capacities in the rest of the world, causing prices to fall. Trade hence helped to add to the contagion, which had started off as a financial crisis.

The fall in the price for crude oil in particular became serious as the scene now shifted miles away to Russia, which was a poorly governed country where the government was irresponsible and survived on high taxes on commodities, including oil. The IMF was present to prop up the government by giving loans and hence there did not appear to be any need for the government to worry about its governance. To top it all, Russia offered extremely high interest rates on its bonds to keep up its reckless spending and at times the rates ranged between 50–70%. Foreign investors thought that this was good and swarmed Russia. After all, lending to a sovereign was always considered to be very safe as they were never known to have defaulted. It was reasoned that even if the government could not pay, the IMF was there to bail them out. Very often these investors borrowed funds at 5% and bought Russian government loans/bonds at 20–30% thus making a clean profit of 15%.

With the slump in Asia and the fall in oil price, the revenue of the Russian government was affected even further. The government found it hard to get funds to service the debt. The government therefore had to consider a default on its debt. This was not expected and the IMF was not in a position to help since it was busy providing packages to the other South East Asian countries in the form of relief. Russia had to get their own companies to pay taxes, and as this could not be done it finally defaulted in 1998 without a warning. The hedge funds, investment banks and other investors made heavy losses and were threatened with bankruptcy. This act had further repercussions on the financial markets elsewhere and the contagion entered these seemingly unrelated venues.

Hedge funds now became the conduit to spreading the contagion. Those who made heavy losses had to show profits to their investors and the only way that this could be done was to liquidate assets in other markets. They had to sell any asset that was liquid if it meant making a profit. They decided in unison to sell Brazilian bonds. Brazil was a country, which under the aegis of the IMF had reformed its economy and ensured financial proprietary and had become a model to be followed by others. But, once the investors holding on to Brazilian stocks and bonds started selling then panic set in as there was selling pressure. The central bank had to increase interest rates to retain funds and this affected countries like Mexico, Korea and Israel. When this happened, funds had to move out and over to the safer domain of US Treasury bonds. The strength of the Asian crisis now moved over to the other end of the world to the healthy confines of the USA.

As demand went up, the price of treasury bonds rose, thus drawing down interest rates. The spread between US T-bills and emerging market bonds widened. The fall in these treasury rates had a negative impact on hedge funds and investment banks. LTCM for example, had neat models which based on past behavior had actually shown that the key bonds would go down in value or yields rise. They had further moved on the premise that the value of the junk bond and emerging market bonds would rise. But, now the US T-bill values went up and that of junk bonds went down, they were left holding 'junk' as these bonds had lesser value than before. This caused it to go bust.

The most important aspect of the Asian crisis is that on account of the deepening of financial markets and the introduction of new players, a localized crisis could actually escalate and envelope the entire world. This is where some of the issues that characterize a flat world came under intense debate. Capital account convertibility was the first target. All countries that pursue capital account convertibility are more vulnerable to such disturbances as the monetary authority loses control over capital flows once such a decision is taken. And while the prerogative is retained to intervene, one is not sure when one can intervene as it could just get too late. By the time the central bank intervenes, the crisis is already deep rooted and the country is in a recession. In retrospect, the Indian economy escaped from this crisis primarily on account of the absence of capital account convertibility. But, this raised another issue for the policy framers.

NEW WAYS OF THINKING: LESSONS LEARNT

The Asian crisis in 1997–98 had led to the creation of antagonists of capital account convertibility. The reasoning as put forth by Paul Krugman was that it is not possible to have a fixed or monitored exchange rate, stable economic growth and free flow of capital at one time. When the going gets tough, foreign funds flow out of the country which forces monetary authorities to either depreciate their currency or raise interest rates. If the former is not acceptable, which is the case in almost every crisis situation, then it should be prepared to raise interest rates to attract capital. Central banks do not like to depreciate the currency as it aggrandizes capital flight. But, high interest rates lead to a recession and the government has to counter the same with higher spending and deficits, which exacerbates the situation as investors further lose confidence in the country. The chain reaction is hence reinforced until such time that the currency adjusts fully, i.e. massive depreciation of the domestic currency.

Therefore, if we have capital flexibility we cannot have growth and stable exchange rates. If we want capital flexibility and growth we should leave the exchange rate to depreciate, which is again not palatable. And if we want the exchange rate to be stable with capital flexibility we should be prepared for lower growth, which is politically not feasible. These are some of the dilemmas that were put forward as the conundrums facing central bankers.

The Asian crisis was an important event because it brought to the forefront quite a few things that could go wrong. One view on the crisis was that George Soros, who made a run on the Thai baht to begin with, had triggered it. In fact, Malaysia made him out to be the villain while he claimed he only was doing his business and he saw an opportunity before the rest of the world did. Now, how did he go about doing the so-called run on the currency? Hedge funds such as Quantum also dealt with currencies. The name hedge funds is quite an ironic one since while the dictionary states that they work on the basis of hedging risk, they may actually be courting risk. One can turn to Thailand for example, to illustrate what could have happened. The baht was pegged to the dollar and this enabled banks to borrow dollars without any hedge as they knew that the exchange rate would be protected at all times. These dollars were converted into bahts and then lent onwards to the corporates and estate sectors. There would be pressure on the baht in case exports slowed down, which would happen in case the dollar strengthened, which did happen.

Countries like Thailand and Korea had large current account deficits and maintained fixed exchange rates, and this encouraged reckless borrowing. The USA was emerging from a recession and hence the Federal Reserve was busy increasing interest rates. This made USA attractive in relative terms and funds began to retrace their steps from these countries. As the dollar strengthened simultaneously, there was a distinct loss of competitiveness for the exports, which in turn lowered the growth in exports and widened the trade deficit. Given that these countries were export oriented and grew on this doctrine, a slowdown in exports meant a slowdown in GDP growth.

Seeing such a situation Soros speculated on the baht and sold the baht for dollars expecting the baht to depreciate so that when the dollars were reconverted into bahts, there would be a gain to be made. In a closer example, suppose one expects the rupee to depreciate. You can borrow say, Rs. 450 from a bank when the exchange rate is Rs. 45/ dollar and then hold the same \$ 10 for some time. This is called selling the rupee for dollars. Now suppose the exchange rate falls to Rs. 50/ dollar, then you

can buy back the rupees by selling the dollars at Rs. 50/ dollar and hence getting in Rs. 500, or Rs. 50 as a net profit which can be adjusted towards the interest cost. Soros did exactly the same and supposedly created the crisis by going into forward contracts on the baht. This was similar to the situation in 1992 when he perceived that the pound was overvalued and hence sold the pound prior to the devaluation, which drove Britain out of the European Rate Mechanism (ERM). He had made \$ 1.1 bn in this process. Soros claimed that he only acted upon market signals and the depreciation was something that had to happen when a currency is overvalued and cannot be defended by the country, be it the UK or Thailand or Malaysia.

The lesson here was that large players could actually play on a vulnerable currency as their short-term strategies provide a focal point for speculative behavior. This induces the smaller players to become more aggressive in the same direction, also called herding, where all buy and sell at the same time thus reinforcing the mood in the market.

The other lesson to be learnt was that some economic growth processes need to be looked at with caution. As Krugman pointed out, the East Asian model was not sustainable as growth was led by capital investment and not by any increase in total factor productivity. In layman terms, total factor productivity (TFP) means all growth brought about by factors other than inputs and productivity gains. This is similar to the thought espoused by Joseph Schumpeter many years earlier when he spoke of technological progress and innovation being the differentiating factors for growth. Mere increases in capital or labor cannot sustain the growth process.

The countries in trouble had to turn to the lender of last resort, which was the IMF and who as mentioned earlier, seldom gives loans without attaching certain strings, which it did once again. The package was something like: cut spending, lower deficits-both current account and fiscal, allow banks to fail, allow companies to fail, increase interest rates, etc. These measures would restore faith in the country and currency, as open financial markets would then get in more FDI, too. This was quite antithetical to what Keynes had spoken of during times of a recession. In fact, the Fed had just lowered interest rates to bring the USA out of a recession while the IMF was advocating the opposite for these Asian countries. It was hence not surprising that the IMF came in for even more criticism when it came to helping the Tiger economies restore their credibility. Ironically, countries that did not follow the policies of the IMF stood to gain like China, which followed expansionary policies

as did Malaysia, which went in for capital controls. There was no necessity felt to increase interest rates as advocated by the IMF. Countries like Korea and Indonesia that did, found themselves in a rut with 50% of firms being distressed in Korea and 75% in Indonesia.

Lastly, the rating agencies took a lot of flak because they were the ones that had rated these countries very highly all along; rating is always of debt and evaluates the ability of the debtor to service the debt. The fact that all these countries turned deficit foreign exchange countries due to a run on their currencies was illustrative of the fact that the rating models had failed across the board for these countries. As these models presumably track the current account deficit as well as the consequence of the same in a fixed exchange rate regime, this cast doubt on the models used by them as well as their competence.



Sub-prime Crisis

"Financial operations do not lend themselves to innovation. What is recurrently so described and celebrated is without exception, a small variation on an established design.... The world of finance hails the invention of the wheel over and over again, often in a slightly more unstable version."

J.K. Galbraith

"Credit and asset-price booms can leave an awful lot of wreckage behind them. The casualty list after America's housing crash includes: an overhang of unsold property; a huge fall in construction; the risk of weakening consumer spending as house prices fall; a trail of bankruptcies; big write-downs among the investment banks; and the unprecedented seizing-up of some financial markets on both sides of the Atlantic".

The Economist

THE GENESIS

Adopting different routes can foster growth in countries. One way to bring about economic growth is to target the retail segment, which means individuals like you and I. The rationale is that in case we spend more money then production moves up forging alongside the backward linkages to make the overall cycle self-fulfilling. Ultimately, growth has to emanate from this segment because all goods are either made for direct consumption or are made to produce goods for direct consumption. Therefore, one growth model is the consumption led strategy where individuals end up spending their income at a progressively rapid pace.

When the Federal Reserve kept lowering the interest rates and brought down its basic rate to 1%, the idea was that spending should pick up. This was to affect both investment and consumption. Investment becomes

profitable when the cost of funds is lowered. Lower interest rates also make consumption meaningful and easy as individuals would end up borrowing money at lower rates to spend. This is manifested quite acutely in the credit card boom wherein people are encouraged to live beyond their means, i.e. spend more than they can afford for this is where profit lies for the banks. Even in India the class of credit card users has increased and people end up spending more through this medium as they have larger credit limits, which means that they do not have to repay immediately and only a fraction has to be paid to begin with. Finally one realizes that the interest rate to be paid is 2–2.5% per month which works out to 30% per annum and which would make even the legendary Shylock seem a kind-hearted gentleman. Better still for banks is the mortgage route, which is a big ticket item for the retail segment where the rates are lower but the risk relatively lower as are the costs of administration.

In the USA the mortgage sector was the driving force of the economy in the last 4–5 years. Just think of all the loans being given to people to purchase more houses. The construction industry assumes the role of an engine to growth, which in turn means greater demand for cement, steel, electric cables, rubber, plastics and the whole gamut of material that goes into housing construction. This is one sure shot way of spurring growth. Therefore, mortgages became the route taken for growth in the USA. This has also been seen in India where a benign interest rate regime tempts one to go in for such investments. Such loans have a repayment period of 20 years on an average, and this means that they have to be serviced for these many years. What about the terms of lending? These terms vary.

In India we have the option between fixed and floating rates. The fixed interest rates are not really fixed because there is a fine print that allows the bank to reset the interest rate periodically. The borrower may never get to know of this as very often if one is on an EMI (Equated Monthly Installment) scheme, the tenure rises from 240 months to 250 months, which can put a lot of financial strain on the borrower. This has the potential to lead to defaults which can get serious if spread over a large number of borrowers. The other is the floating rates where the mortgage rate is linked to a benchmark, which can be the Fed rate or the PLR rate or MIBOR/ LIBOR. The problem here is that if the monetary authority decides to take interest rates in the upward direction, as was the case in the USA as well as in India, the borrowers will see themselves at a disadvantage.

THE TURNAROUND

The issue may not have been serious but for the sudden downturn in property prices. This in fact was the turning point for the crisis. Growth in property prices was linked with the demand. Demand in turn was engineered by the lower interest rates. Lower rates as well as speculation in this area drove prices further up as a large number of people made a profession out of buying property and selling it at a profit. All this was fine until the Fed kept increasing interest rates thus pushing up the cost of funds as well as the lending rates. Once interest rates moved up the demand for property fell which caused their prices to crash. The market was overvalued anyway and hence the fall was even more pernicious. Those who had taken loans at lower rates had to pay higher interest rates with the reset clause coming in. Also, borrowers had tended to take loans based on a floating interest rate structure and reaped the benefits of declining interest rates. The about turn witnessed created problems on the repayments side and borrowers found it difficult to service both the principal and interest. When one defaults on loans, the lender has the right to sell the collateral, but when the value of the collateral has fallen, the realization could end up being as low as 40-60% of the original value of the property. This meant a crisis situation had come up with the lenders holding on to depreciated assets.

The bubble came about primarily due to the relentless lending in this sector by the institutions as well as mortgage brokers. Most of the time the lending took place at rates that were much lower than the Prime Lending Rate. Hence, this has come to be called the sub-prime loans crisis. Essentially this scheme entails borrowers being offered loans at a very competitive rate by the lender to shore up their own asset portfolio. This was quite indiscreet as even people without jobs or assets were offered loans as it was presumed that the boom would carry on. These loans came to be known as *ninja* loans, i.e., no income, no jobs or assets, but still lendable. The booming housing sector meant that the lender was sure that even if there was a default, the same assets could be sold and money recovered quite comfortably. Very often the borrower was not aware that the reset clause would come into force when the rates moved up and the borrower could end up paying much more than he had originally intended.

In the traditional scheme of things it is the bank that lends money and such a situation would have meant that banks would get into trouble with larger non-performing assets and at the limit, insolvency, which was the case with the Asian crisis of 1997–98. But, this time round it was quite

different as the field of finance has become more sophisticated and complicated in the last decade and a half with the advent of financial derivatives. The lender had an escape route wherein it could securitize the loan and get away from the entire business of mortgages. How did this work?

ENTER SECURITIZATION

Securitization is the process of aggregating illiquid assets such as a large number of illiquid mortgage notes and then selling securities backed by these assets. These securities can be traded in any open market in a way that would not be possible for the illiquid assets that back these securities. Because the securities are typically backed by large pool of loans, the investors minimize the risk of the default of individual loans by spreading that risk among large number of loans and investors.

The growth of securitization, which essentially is a tool to diversify risk across more parties, was the focus of attention. Mortgages were securitized by the lenders to the extent that after a point of time one lost track of the actual lender with a series of other players coming to occupy the position of holder in due course. Securitization enables the lenders to move away from the responsibility of being the lender by passing the loans on to a securitization agency, which is often a special purpose vehicle (SPV) that is set up for this purpose.

The SPV gathers all these loans and issues securities against them. These securities have seniority in terms of repayment obligations and are rated by the rating agencies. The unitary interest in the loans is divided into different classes of securities each representing different aspects or strips of the loans. These are called tranches. One tranche may have the right to first repayment of principal while another may not be entitled to any payment until all the rights of all other tranches are satisfied and so on. Hence, there would be some triple 'A' rated securities, some B and some equity. The higher the rating, the lower would be the return but better would be the terms of repayment. As is evident, the equity component would not receive any return in times of a loss situation.

These securities are issued to investors who could be banks, corporates, funds and even individuals. They purchase these securities knowing very well that they are backed by assets, in this case, the mortgages. When the market got to know of the crisis there was panic as investors wanted to move out. The securities could not be sold and their intrinsic value crashed in accordance with the value of the collateral,

which was losing value. The market hence became illiquid. At the same time the funds needed to move out and had to pay their own investors and while some of them refused to pay any return to their investors, the others had to look out for alternative ways of doing this. This could be by liquidating their assets in other markets.

THE CONTAGION?

The market that was targeted was the stock market. Hedge funds began selling, as they needed to make profits for their investors. But, when they sell the markets go down further. Hence, the stock markets went into a decline. Now, these funds also had their investments in the Asian markets as well as the commodity markets and this was the time to sell in these segments too, which caused markets all over to receive this meltdown. Therefore, stock markets crashed, as did commodity markets as everyone was selling.

Simultaneously, the money market became rigid as banks were unwilling to lend to one another as they were not sure about the risk profile of the borrowing bank as several banks came to be involved in this exercise. Bank bad debts are estimated to be anywhere between \$ 300–500 bn across the world with several leading banks already announcing their losses. As interest rates went up, the Federal Reserve as well as the ECB, intervened by providing liquidity to banks as well as lowered the discount rate for banks so as to restore order and stability in the markets. This did have its impact with markets gradually moving back to equilibrium.

Thinking Deeper

Securitization had actually atomized the lending industry and allowed the sub-prime market to be regulated largely by rating agencies and securitizers. Securitizations allowed thinly capitalized non-bank lenders to access capital markets and expand rapidly. They then quickly sold off loans or securitized the same. The buyers of these securities did not know the origins of the assets that were backing these papers. The problem was that most non-bank sub-prime lenders are regulated by rating agencies and Wall Street which are more concerned about the protection of their own self-interest and investors. This has led to inconsistent underwriting standards.

All historic bubbles are accompanied by a sharp rise in leverage and there are innovative financial products, which support such bubbles. They

were junk bonds at one time while they were collateralized debt obligations (CDOs) this time. All of them are debt secured on a real asset. The sub-prime crisis can be regarded as one of the largest bubbles and its impact was on the financial sector to begin with, but the story does not end there. It is not a case of saying that the banking system or the hedge funds have borne the brunt of this crisis. It has the potential to affect the real sector too where production actually takes place. How does this happen?

There are studies to show how the boom in the housing sector has contributed to the growth process in the USA. Studies show that even after a financial bailout it would be impossible to stop a decline in real estate prices, which in turn will slow down the growth process. The only solution here would be to prevent a recession by effective job creation methods where the government would be employer of the last resort—a Keynesian prescription once again. This is so because it was argued that once consumption slows so will the credit cards and car finance markets as their CDOs (Collateralized Debt Obligations) would go bust—another inter-market contagion. In fact, more recently at home, banks which had dealt with credit default swaps (CDS) not linked to the sub-prime crisis had to book mark-to market losses on their portfolio as interest spreads on CDS generally increased on account of this contagion.

Therefore, there is significant scope for such contagion to spread across markets and then countries. The spark will be ignited once institutions realize that the CDOs have led them to sit on a pile of junk papers that have no value.

The intervention by the Fed and ECB was expected and did assuage the markets. But, it has raised the issue of moral hazard where players will continue to take the risk knowing very well, through experience that the monetary authority is there to bail them out which now becomes one of their functions. Monetary authorities are supposed to intervene in the market to bring about a correction due to market failure under abnormal circumstances and not to bail out errant players. But, that does not seem to be the case today.

The issue that is flagged today against this background is one of moral hazard in the financial sector. It is a situation where a deviant institution continues to take risky decisions knowing fully well that it will be helped out by the system in case of failure. Hence, banks can give into indiscretion in case they know that the cost of failure will finally be sorted out by the central bank. Now, the actions of monetary authorities across the world to tackle the sub-prime crisis have actually created this moral hazard. Let us see how this has happened.

The sub-prime crisis was a case where mortgage banks lent to home buyers with limited credit credentials at low rates and then sold them forward for securitization against which securities were issued to investors. As interest rates went up the threat of default increased. Hedge funds were asked to put forth more money and when they tried to sell the mortgage-backed securities their value had fallen. As no one knew where the risk lay and banks were reluctant to lend to one another, the funds dealing with these securities went bust. The Fed and the ECB started providing funds in the market to ensure that liquidity was available and this sent out the signal that the monetary authority was willing to intervene to eschew a crisis.

Critics feel that this kind of intervention creates a new moral hazard, as institutions will use this as a precedent to be more reckless in future knowing that they will not be punished and a solution will be forthcoming from the Fed or ECB. To top it all the discount rate at which the Fed lends money directly to banks was also lowered which prompted all the big ones like Citi, Wachovia, JP Morgan Chase and Bank of America to borrow.

Across the Ocean to England: Lessons for India

Come over to UK now, and the Bank of England has done a similar act of protecting the Northern Rock Bank which though a mortgage bank had a different kind of problem. Its assets were secure but its funding channel got choked as it depended on the capital market and the commercial paper market for funds. This created a stir, which got reflected in its stock value and was followed by deposit holders queuing up for their money. The BOE then entered to rescue the bank by not only providing insurance for the deposits but also providing funds against the security of the mortgages which were held.

Two questions arise here. Should these institutions be bailed out and the second is whether the central banks are justified in helping them out? The answer is equivocal here. If financial entities go overboard then it is not unlike a situation where a manufacturing concern, which makes huge losses has no recourse. Hence for a bad business decision the consequences must be the same.

However, there are two points here. The first is that banks deal with public money and hence cannot be allowed to fail. Secondly, the fear of a contagion arises once one bank is allowed to fail. Therefore, the answer to the question posed earlier about whether the central bank should help out, the answer is yes. The central bank cannot stand by and let the crisis

spread. If that is so, is there any way out? Here the Indian case needs to be put in the right perspective.

The Indian banking system is well governed with rules being placed on the lending pattern of banks. Lending to risky ventures like capital markets, commodities and real estate are 'sensitive sectors' and is not widely encouraged and is monitored closely. As over three quarters of the banking system is in the public sector, it helps to enforce this discipline.

We have however, had our own share of banking crisis, which have never really escalated to any kind of a contagion. Global Trust Bank had failed following a stock market scam but the RBI found a way out through a merger with a public sector bank, Oriental Bank of Commerce. IFCI has been bailed out through financial infusion and subsequent equity sale. The lesser-known Benaras State Bank was amalgamated with Bank of Baroda which in turn protected the deposit holders. But, yes, in case of the stock market related Madhavpura Bank, the RBI did resort to provide finance to cooperative banks for short tenures to ensure that banking activities were not affected. But earlier, following the stock market scam in the mid-nineties, both Bank of Karad and Metropolitan Banks were liquidated.

Therefore, the RBI has also changed it approach to bank failures from a strict liquidation regimen just as we embarked on reforms to a more practical merger policy to one of accommodation depending on the circumstances.

An issue that comes to the forefront now is whether the sub-prime crisis could be repeated in India. We do not have such lending but given the large increase in the share of mortgages in the bank portfolio, there is a similarity. Also the fact that this portfolio has been built at a time when interest rates were low and are being re-priced today with higher interest rate regimes does highlight a payment problem for borrowers. Protracted repayment schedules and higher interest costs could affect the ability of borrowers to repay, which was the same with the sub-prime episode. But, the difference that can be seen today is that property prices are still high, which will prevent the value of the collateral from declining which was the case in USA.

The answer hence is quite clear. To begin with whenever public money is involved, the governance needs to be strong. Once in place, a failure should be protected to restore the confidence of the public as well as safeguard their interests. But, this should hold only when public funds in deposits are involved and not when investors are putting their money in hedge funds where the risks are known beforehand. There is hence a need to distinguish between the two.

16 CHAPTER

Concluding Remarks

The thought process here, as mentioned in the beginning, was to provide a flow of explanations on the subject of economics to acquaint the layman with the concepts. This is important because very often we read differing views on the same subject and keep wondering who is right and who is not. "You are neither right nor wrong because the crowd disagrees with you. You are right because your data and reasoning are right", said Warren Buffet in a different context. But it holds well here; and the clue here is to get the facts right and use your own judgment to take sides.

It has been shown all along that everyone is right but what is more important is to figure out the slant at which the critic or economist is holding the mirror. Statistics are extremely malleable to one's requirements, which should make us cautious when accepting themes based on data. The problem arises because there are no standard definitions of collecting data as every variable has its own problems. Therefore, one must be perspicuous enough to get hold of the right side so as to form an independent opinion of the same.

The first part hence was focused on concepts and their different interpretations. Growth numbers will always be taken with a pinch of salt until such time that the structure of our economy changes. Hopefully, the reader is better equipped to analyze the budget or the credit policy and the periodic announcement of policy measures should make more sense. You will probably be a bit more patient with the non-development expenditure outlays of the government and understand the conundrums of government borrowing. The RBI's motivations can be better grasped independent of what the governor says. You can probably even understand how to interpret the balance of payments and get a better grip over capital inflows and the impact on the exchange rate and the relentless pressure that has been exercised on the RBI. Banking should make more sense

now and one should not get carried away if the Sensex crosses 20,000 or comes down to 4 digits. The capital market surely has an important role to play but must not be taken to be, as Shakespeare said, "the be all and end all of all policies". It cannot be the driver, though it is an integral part of the system to foster growth and development.

The second section, coming after the breather, was essentially to provide an overview of some of the more recent issues and throw different lights on the same subject. The premise all along, is that there are different sides and no issue can be seen as black or white. The gray shades need to be understood and absorbed for better understanding of the subject. The topics chosen are few and probably more pressing than others such as poverty, unemployment, privatization, political economy, etc., some of which have been briefly touched upon for a minimum level of acquaintance that is needed. Economists have praised economic reforms because one is supposed to do so and are supported by theory but the need to follow a gradualist approach cannot be eschewed given our social framework. The same holds for globalization, which though an eventuality, like all processes is an uneven ride for different countries. The success of the euro points positively towards this goal while the WTO impasse rightly provides the speed breakers to ensure that there are uniform benefits or less unequal benefits in such arrangements. The two specific economic crises that have been elaborated here explain how one cannot live in isolation and how markets have become integrated. During the Asian crisis, India escaped well and on hindsight it was felt that we were prudent in our quest for economic reforms including capital account convertibility. The same was not the case with the sub-prime crisis, where we have been drawn in albeit inadvertently and are feeling the heat with higher interest rates. Even the stock markets were affected in India when the banking sector was affected on news of the collapse of Bear Sterns, which was sort of the trigger for the sub-prime crisis.

One does hope, that you have enjoyed going through this book and that reading the newspaper becomes slightly less difficult and that there are fewer frowns as you read the columns.

SUGGESTED READINGS

The list of suggested books here is easy on the mind and the works of these authors are quite delightful to read even as pure pieces of literature. There could be a bias in the selection of these books as their authors, at times, are known for radical views. But radical views are necessary to push forth a dogma especially if it is against the general flow of thought. Most of the recommended books give good insights on some of the more contemporary issues and are hence refreshing.

- 1. Stiglitz, Joseph. Globalization and Its Discontents.
- 2. Stiglitz, Joseph. Making Globalization work.
- 3. Friedman, Thomas L. The World is Flat.
- 4. Schiller, Robert J. Irrational Exuberance.
- 5. Dowd, Douglas. Understanding Capitalism: Critical Analysis from Karl Marx to Amartya Sen.
- 6. Omerod, Paul. Irrational Economics.
- 7. Sachs, Jeffrey. The End of Poverty.
- 8. Greenspan, Alan. The Age of Turbulence.
- 9. Krugman, Paul. Peddling Prosperity.
- 10. Friedman, Milton. Capitalism and Freedom.

Any, if not all issues of *The Economist*.



Index

Book-building Α 144 Bourgeois Accelerator 17 **Bretton Woods** 183 Adam Smith 3, 9 Budget 53 Agrarian revolution 42 Build-Operate-Own (BOO) Amber box Build-Operate-Transfer (BOT) 56 Arbitrage 10 56 Arthur Laffer 22 Build-Transfer-Operate (BTO) Bull phase 55, 96 152 Asian contagion Buoyancy 55 Asian crisis 39 Burgernomics Asset-liability mismatch 90 Asymmetric information 10, 69 \mathbf{C} ATMs 88 Capital account 54, 119 Autocorrelation Capital account Available for sale 87 convertibility 128, 187 Capital adequacy В 4, 86 Capital market 4, 53 Bad debts 86 Capital revenue Balance of payments 5, 15, 119 Capitalism 46 Bank for International Settlements Capitalist 47 (BIS) 87 Bank of England 67 Carry trade 122 Causal 30 Bank of Japan 67 CD rates 76 Bank rate 70 Collateralized Debt Obligations Base year 36 (CDOs) 196 Base year defect 114 Central Bank 4, 67 Bears 96 Ceteris paribus 10 Beggar my neighbor 15 Coefficient of determination Bind 170 Collateral 92 Blue box 171

204 Index

Colonialism 49, 157 Common currency 164 Communism 47 Comparative advantage 9, 118 Competition policy 175 Conditionality 140 Confidence levels 29 Consumer Price Index (CPI) 111 Cost-push inflation 20, 110 Countervailing power CP rates 76 Credit card 192 Crony capitalism 185 Cash Reserve Ratio (CRR) 71 Current account Current account balance 120 Customs 55

\mathbf{D}

David Ricardo 9, 118 De-licensing Defense expenditure 57 Demand 16 Demand-pull inflation 109 Depression 15, 16 Development 55 Development Financial Institutions (DFIs) Devolution of funds Diminishing returns Direct Selling Agent (DSA) 89 Direct taxes 54 Disclosures 87 Discretionary policies Disintermediation 4, 102 Dispute resolution 178 Distribution aspect Diversification

Dow Jones 95 Dummy variables 29 Dumping 141, 168 Durban Watson 30

\mathbf{E}

ECB route 122 Econometric modeling Econometricians Econometrics Economic contagion Economic Darwinism 7, 46 Economic reforms 6, 29, 134 Economic theory Edmund Phelps 21 Efficient market hypothesis 98 Elasticity 66 EMI (Equated Monthly Installment) 192 Equilibrium 13 EU (European Union) 163 Euro 6, 162 European Central Bank Exchange rate 5, 124 Expenditures Export promotion 135, 167

F

Federal reserve 19, 67, 153, 191
FIIs 121
Finance Commission 54
Financial repression 85
Fiscal deficit 59, 144
Foreign bank 83
Foreign Direct Investment
(FDI) 92, 121
Foreign exchange assets 127
Foreign Exchange Regulation Act
(FERA) 135

Hyperinflation

Ι Foreign Institutional Investors (FIIs) 99 IBA (Indian Banks Foreign investment Association) 89 ICICI 90 Foreign investment policy IDBI 90 Free rider 56 IFCI 90 2 Friedman IMF 6, 51, 140 **FTSE** 95 Imperialism 48, 157 Full employment 14 Import substitution 135, 167 Fundamental analysis 33 Inclusive banking 4 Futures market 107 Income recognition G Indirect taxes 54 Infant industry argument G-Sec 76 Inflation 5, 18, 108 Garibi hatao 50 Informal sector GATT 170 Information 10 GDP 3, 35 Integrated Rural Development 188 George soros Program (IRDP) Globalization 6, 151 Intellectual property rights 173 GNP 35 Intercept term 29 Godzilla' models of growth Interest payments 57 Gold standard 14 Internet 88 Governance 101 Investment 17, 87 Government Investment allowance 23 Government procurement 175 Investment rules 174 Granger causality test Invisible hand Great depression Invisibles 119 IPRs Green box 171 157 Green revolution 148 J Growth 3 J.K. Galbraith H Jean Baptist Say 13 John Maynard Keynes 101, 188 Hedge funds John Muth 24 Held for trading Joseph Schumpeter 7, 74 Held to maturity High-powered money 70 K Homoscadasticity Karl Marx 3, 47 Hot money 130 Keynes 2

KFW 90

206 Index

Know Your Customer (KYC) Monopolies 11 norms 93 Monopolies and Restrictive Trade Practices (MRTP) 135 \mathbf{L} Monopsonies 11 Laborer 47 Moral hazard Laffer curve 22 194 Mortgages Laissez-faire Most Favored Nation (MFN) Latin America debt crises 183 M368 LIBOR 122 Multicollinearity 30 License raj 135 Multiplier 17 Loan *melas* (fairs) 83 Mutual funds 100 Loans 59 N LTCM 187 Lucas 2 Narasimham committee 84, 144 Narrow money M NASDAQ 95 Mahalanobis 50 Nationalization 81 Market Stabilization Scheme Nationalized banks Bonds (MSS) 73 Neil Wallace 24 McDonald Burger Index 126 New classical economics 24 Mergers and Acquisitions (M&A) Newly Industrializing Countries 143, 159 (NICs) 184 MFA (Multi-fibre Agreement) 171 Nifty 97 MFI (Micro Finance Ninja loans 193 Institution) 94 Nominal 36 Micro finance 4 Non-development Middle class 45, 47 expenditure 55 72 Minimum Interest Rate (MIR) Non-performing assets 4, 86 Minimum Support Prices Northern rock bank (MSP) 57 Mixed economy 0 MNCs 158 Oil crises 183 Modalities 171 Oligopolies 11 Mom and pop stores 42 Oligopsonies Monetarism 21 Option 107 Monetary authority 67 Own money 96 Monetary policy 4, 25, 53, 67 P Money 4 Money illusion Participatory Note (PN) 98, 101 Money supply Patent 174

Paul Samuelson Reserve Bank of India 10 (RBI) 25, 67 Perfect information Revenue 54 Permanent income 71 Phelps 2 Reverse repo Risk-weighted Philips curve 19, 21 Planning Commission 50 Robert Lucas 24 Rules 25 Price 10 Rules based policy 79 Price-earnings ratio Rules of origin 177 Primary 95 Primary market 95 Prime Lending Rates S&L crisis 183 (PLRs) 72 SAARS 174 Privatization 61 Safeguards 177 Protection 167 Say's law 15 Public distribution system 58 SEBI 144 Public goods 3, 55 Secondary 95 Public sector banks Secondary market Public Sector Units (PSUs) 61 Securitization Pump priming 18 Securitize 194 Purchasing Power Parity (PPP) 38, 126 Self-employed 42 Sensex 97 Q 198 Sensitive sectors Quantity Theory of Money Service tax 54 Quantum 188 Services 37 Quotas 168 174 Singapore issues R Small is beautiful 143 r-square 29 Small-scale industries 136 Rating agency 103 Socialism 48 Rational 23 South Asian currency based on Rational expectations school 24 the SAARC 165 Real Special Drawing Right (SDR) 163 Real Effective Exchange Rate (REER) 126 Special Purpose Vehicle (SPV) 194 Real exchange rate 125 Specialization 156 Reganomics 23 Stagflation 20, 111 Regional trade agreements 155, Standard deviation 180 Statutory liquidity ratio 73 Repo rates 71

208 Index

Stock exchanges 96 Structural inflation 111 Sub-PLR 72 Sub-prime crisis 152 Sub-prime lending crisis 7 Sub-prime loans crisis 193 Subsidies 6, 57, 169

T

29 t-test Take-out financing 92 Tariff 6, 168 Tariff escalation 172 Tax 3, 36 Taylor's rule 75 Technical analysis The Economist 39 Thomas Sarjent 24 Total Factor Productivity (TFP) 189 Trade barriers 168 Trade facilitation 174 Trade flows Trade policy Trade wars 169 Treasury bonds Trickle down 44

U

Universal banks 91 Uruguay Round 170 US T-bills 187 USD 162

V

Value added 39
Variance 30
Velocity of circulation 13
Vijay Kelkar Report on taxation 23

W

Wage 12
Wall Street collapse of 1987 183
Ways and Means Advances
(WMAs) 60
Wholesale Price Index
(WPI) 111
World Bank 44
World Bank and ADB 90
WTO 31, 169

X

Xenophobia 49

Author's Profile

Madan Sabnavis is an economist who has been working in the corporate sector for over 20 years. A post-graduate in economics from Delhi School of Economics, he graduated from St Stephen's College, Delhi in Economics (Honours) in 1984. He has had varied experiences in the corporate world in developing banking (ICICI Limited), commercial banking (ICICI Bank Limited), manufacturing (Larsen & Toubro Limited) and commodity trading (NCDEX Limited). His career of over two decades has been in economics and economic research, which has culminated in this book. He is the author of over 800 articles in newspapers including, Financial Express (in which he first wrote in 1988), Economic Times, Business Standard, Business Line, Indian Express, Hindustan Times, Times of India and DNA. These articles cover all aspects of practical economics ranging from growth issues to exchange rates, monetary and fiscal policies. Some of the more recent articles can be read on his blog: www.madansabnavis.blogspot.com.

He has also occupied important positions in various associations. He was the Co-Chairman, and subsequently Chairman of the Economic Policy and Corporate Strategy Committee of the Bombay Chamber of Commerce and Industry, the Co-Chairman of the Business and Economics Reforms Committee of the Indian Merchants Chambers, member of the Research Advisory Committee of Indian Institute of Banking and Finance and member of CII WR Economic Affairs Sub Committee. He was also on the Editorial Board of the Indian Banks Association while working in the banking sector.