GAUTAM MUKERJEE

Economics of Globalization

A Handbook



in Marth Color

GAUTAM MUKERJEE **ECONOMICS OF GLOBALIZATION** A HANDBOOK

Economics of Globalization: A Handbook 1st edition © 2017 Gautam Mukerjee & <u>bookboon.com</u> ISBN 978-87-403-1649-0 Peer review by Prof. Arto Lahti, Helsinki School of Economics and John J. Crawford, MBA Assistant Professor of Finance at the University of Pittsburgh at Bradford

CONTENTS

	Preface	8
	Foreword	11
1	History of globalization	13
1.1	Introduction	13
1.2	Global living	14
1.3	Key networks	15
1.4	Economic thinking	16
1.5	Early origins	19
1.6	Recent history	20
1.7	Hyperglobalization	30
1.8	Weightless economy	31
1.9	Business deals	33
1.10	New challenges	34
1.11	Mixed picture	36

I joined MITAS because I wanted real responsibility

The Graduate Programme for Engineers and Geoscientists www.discovermitas.com



International opportunities Three work placements

MAERSK \mathbf{X}

2	Structure of Globalization	39
2.1	Introduction	39
2.2	Importance of trade	39
2.3	GATT to WTO	42
2.4	Trading costs	44
2.5	Favorable winds	46
2.6	Capital flows	48
2.7	Currency markets	51
2.8	Balance of payments	54
2.9	Sovereign defaults	57
2.10	Growth prospects	58
2.11	Fair trade	60
2.12	Economic freedom	62
3	Globalization: Relevant theories	65
3.1	Introduction	65
3.2	World-systems paradigm	67
3.3	Globalization economics	70
3.4	Early enthusiasm	72
3.5	Three waves	73
3.6	International economics	77
3.7	Policy coordination	85
3.8	Radical perspective	87
3.9	On balance	90
3.10	Brexit and after	92
3.11	Globalization's future	94
4	Nature and environment	97
4.1	Introduction	97
4.2	Natural resources	98
4.3	Environmental stresses	103
4.4	Water scarcity	106
4.5	Bioinvasions	109
4.6	Economic externalities	110
4.7	Tradeoffs	112
4.8	Mounting insecurity	114
4.9	Sustainability	116
4.10	Renewable resources	118

5	Work and wages	120
5.1	Introduction	120
5.2	Shifting sentiments	121
5.3	Technological change	122
5.4	Labor markets	124
5.5	Labor standards	126
5.6	Occupational trends	128
5.7	Uneven developments	129
5.8	Race to the bottom	134
5.9	Reshoring	136
5.10	Global outlook	139
6	Finance and investment	143
6.1	Introduction	143
6.2	Globalized finance	144
6.3	Financial markets	146
6.4	International investment	149
6.5	Uneven landscape	150
6.6	Major players	155
6.7	Economic bubbles	157
6.8	Secular stagnation	161
6.9	Global prospects	163
7	Policy questions	167
7.1	Introduction	167
7.2	Economic cycle	168
7.3	Macro policies	170
7.4	Currency matters	178
7.5	Financial structure	180
7.6	Systemic risk	182
7.7	Supranational institutions	186
7.8	Changing reality	187

8	Puzzling prospects	191
8.1	Introduction	191
8.2	Globalization paradox	192
8.3	Productivity puzzle	196
8.4	Added turbulence	198
8.5	Economic crises	200
8.6	Asian miracle	202
8.7	China rising	204
8.8	Coordination problem	205
8.9	Resetting priorities	207
8.10	Possible backlash	208
8.11	Future prospects	211
	Notes	214
	References	219

PREFACE

A handbook is a concise manual or a reference book that provides specific information or instruction about a subject. The topic taken up here is globalization, a fascinating subject that has been at the forefront of public discussions for quite some time.

To the leading proponents of globalization, the secret to economic prosperity lies in finding ever-expanding markets. Thus globalization is seen to be by far the best way to achieve economic development and end poverty for big chunks of humanity.

Unfortunately globalization is not an unmixed blessing. While "think global, act local" may be a popular slogan, the picture on the ground is hardly perfect. There is in fact a growing sense of unease about all that globalization brings, which raises more questions than answers.

This handbook touches upon a whole range of issues surrounding globalization in the hope that these may then be pursued by the reader at leisure. It resembles an instructor's notebook for undergraduates that assumes some familiarity with basic economic principles. Consequently, it should be of interest to anyone who wants an introduction to the fascinating topic of globalization.

The language employed here is colloquial and nonspecialized. A conscious effort has been made to maintain an informal tone and avoid weighty scholarly deliberations as well as flashy empiricism. Many current views on globalization as expressed in the popular presses have been incorporated here in the interest of maintaining currency and relevance.

The few specialized terms and terminologies that have slipped in nonetheless are clearly defined along the way so as not to detract from the main theme. Since the United States is a commanding presence in the global marketplace, the American perspective has been employed as the primary vantage for this handbook. The fairly extensive list of references supplied at the end should also serve as a useful source for further readings.

In what follows, the history and mechanics of globalization are examined first before exploring its theoretical underlining. What globalization means for the environment, the changing nature of work, wages and the complex world of finance and investment are examined next. The handbook wraps up the subject with a look at the policy questions and the long-term prospects for the global economy. **Chapter 1** provides an account of the historical origins of globalization and its essential features before considering the tremendous possibilities for commerce opened up by the information revolution. The curious phenomenon of hyper- globalization is examined next along with the associated complexities.

Chapter 2 explores the structural mechanics of globalization. This involves the simple logic of trade, the evolution of global trade agreements, the costs of trade, the mechanics of currency markets and the nature of global capital flows. The chapter concludes with a look at the somewhat weighty question of economic freedom.

Chapter 3 presents an overview of the various popular theories on globalization. As may be expected, the early enthusiasm in academic circles concerning globalization produced several strains of theorizing across disciplinary boundaries. From mainline economic theorizing all the way to the radical perspective we are thus treated to a multiplicity of flavors concerning globalization. The chapter concludes with a quick look at the conceptual limitations and the questions that are largely left unanswered.

Chapter 4 looks at how globalization impacts on the endowment of natural resources and how environmental stresses and resource scarcities arise. The discussion extends to the issue of geopolitical uncertainty that often feeds upon environmental stresses. The chapter wraps up with a look at the promise of renewable resources and the related issue of sustainable development.

Chapter 5 examines the changing the nature of work and wages brought about by globalization. After a discussion of labor market operations, attention turns to the changing work patterns, alterations in labor standards, changing migration patterns, altered perceptions of income security and what all of it means for the economic prospects of labor around the globe.

Chapter 6 examines the crucial links between finance and investment, the mechanics of integrated financial markets and the nature of global investments. The analysis concludes with an examination of the risks and other challenges posed by globalized finance.

Chapter 7 explores the nature of economic fluctuations and how these play out within the dynamics of globalization. The analysis extends to the challenges globalization poses for policy makers.

Chapter 8 looks at the paradoxes and puzzles posed by globalization. The economic success stories from Southeast Asia provide the backdrop and the ongoing economic miracle of China takes center stage. The chapter concludes with look at the possibility of a backlash to the entire globalization process and what it might mean for our economic future.

Gautam Mukerjee University of Pittsburgh at Bradford, February 2, 2017

FOREWORD

The average Economics textbook at the collegiate level will cost a student well above \$200; *Economics of Globalization: A Handbook* will cost a student nothing. Let me first start off by discrediting the old adage: "you get what you pay for", because in the case of this handbook it couldn't be further from the truth. The origins of the handbook are derived from over 30 years of teaching and research experience that have dealt with the challenging concept of globalization. Dr. Gautam Mukerjee, Associate Professor of Economics at the University of Pittsburgh at Bradford, captures the essentials of globalization without getting bogged down in high theory. The main reason that this handbook triumphs, is due to its simple yet relative nature. It covers topics at both an introductory and an intermediate level, so it benefits the novice and the experienced alike.

In the first few chapters, Mukerjee discusses the history and theoretical framework behind globalization. I feel that these chapters are some of the best in the book because they demonstrate how globalization has become so intertwined with economics, finance, politics and socialization. The chapters lay out all of the fundamentals and vocabulary that one needs to understand the concepts and then encourages its readers to dive deeper into their analysis. Interestingly, Chapter 3 concludes with the Brexit scenario and the author paints a depiction of a growing anti-globalism/pro-nationalism sentiment- which I couldn't find to be more fitting for us to study as we are faced with similar uncertainties concerning our new Executive Administration here in the United States.

As a practitioner, the aspect that I truly appreciate about *Economics of Globalization: A Handbook* is the text's ability to work cross-functionally or cross-curriculum. As a professor of finance, I'll use this handbook with my students when we are covering the topics of international finance, financial markets, economic systems, as well as financial scandals and crises. I've already begun using this handbook as the primary text in one of my courses (economic systems) and I plan to use it as a supplementary source in a few others. Specifically, Mukerjee does a great job covering *financialization* in Chapter 6 where he investigates the growing, risk-seeking nature of capital markets and international investment. Not surprising, this often creates an exorbitant economic boom, which may or may not be followed by an unpredictable yet devastating POP of the bubble!

In all, I truly enjoyed this book. It is an easy read and I found it very easy to comprehend. Mukerjee doesn't get caught up in all of the scholarly references to economic theories and studies that often leave undergraduates more confused than enlightened. It is also worthwhile to note, that there are useful questions at the end of each chapter – which I prefer to use for classroom discussions, but they could easily be assigned for homework as well. This handbook couldn't come at a better time, because much of the future is uncertain...are we at the precipice of a worldwide retraction or is globalization on a course of exponential possibilities?

John J. Crawford, MBA Assistant Professor of Finance at the University of Pittsburgh at Bradford

1 HISTORY OF GLOBALIZATION

1.1 INTRODUCTION

Today our entire world appears to be an integrated network of markets that allows goods, money and information to flow easily. This has created a remarkably broad range of choices for global consumers.

Today it is just as easy to find a McDonald's in Egypt or a KFC in Kuwait as a Japanese sushi bar in a big city in the United States. While Photoshop online makes our snapshots look amazing, they may also be shared with the rest of the world just as easily as e-books, downloadable music and mobile apps may be circulated endlessly.

The three essential components of globalization are:

- Free trade in goods and services
- Integrated resource markets across nations
- Integrated financial (capital) markets

Although international trade is clearly a significant part of globalization, the latter involves much more than may be readily apparent. For the idealists among us, globalization promises economic freedom and prosperity for all, provided everyone is receptive to all the changes that it brings.

While globalization permits our stores to be stocked with a great variety of wonderful products from all over the world, businesses also enjoy expanding opportunities to access resources in remote places. This not only means a ready availability of cutting-edge production methods and new technologies but also large pools of savings that may be channeled into profitable investments.

Think of the tremendous success of Alibaba, the Chinese e-commerce giant that recently went public by selling shares on the New York Stock Exchange. It turned out to be a blockbuster share offering that raked in billions of dollars for the company.

Great advances in computers and telecommunications technology have set the tone for the latest phase of globalization in the 21st century, as the whole world has begun to be shrink-wrapped as it were. The internet captures the spirit of it beautifully by:

- compressing our sense of time and space
- providing an enormous data highway for virtual goods in transit
- offering round-the-clock trading anywhere in the world

With the United States being a prominent player in the global marketplace and always ready to weigh in as necessary to resolve trade conflicts, we shall use the U.S. as our vantage point in our study of globalization.

In this chapter we shall learn about the historical origins of globalization and explore the economic thinking that drives its dynamic. We shall then proceed to examine the relatively recent phenomenon of hyperglobalization along with the intriguing concept of a weightless economy and the complex challenges it presents in our lives.

1.2 GLOBAL LIVING

It is hard to believe but a huge volume of the cut flowers that we buy every day and for special occasions come from distant Colombia and Ecuador, where they are grown in massive greenhouses. A lot of the fresh produce that are sold in the grocery stores all over the U.S. also comes from nearby Mexico.

The most spectacular import by far are the great big shrimps at our local supermarkets; they are flown in from India in giant refrigerated containers. Consider staple commodities such as, sugar, coffee, chocolate, tea and bananas; these products travel enormous distances to get to our cupboards. It is estimated that the contents of a single plate of food on the typical American dinner table carry an average tag of about 1500 miles¹.



At this point, we may say that there is a simple solution when it comes to foods. Why don't we simply turn to locally grown foods? But local production is not as simple as it sounds. It is especially problematic because:

- Local production may be much more expensive than imports since the latest production techniques may not be available
- The limited scale of local production automatically precludes large cost savings
- Local production cannot possibly offer the sheer variety that may be enjoyed by trading through global markets

We may very well believe in organic foods and healthy eating but what if our food budget alone eats up a big part of our paycheck? Then we will have less money left with which to do the other things that we enjoy most. Food cannot be the only thing that makes life enjoyable. So globalization offers an easy and convenient solution:

- Tap into efficient production methods using the most modern technology
- Build access to low cost resource markets around the globe
- Enlarge the scale of production which makes products cheaper

In the end, globalization offers us more value for our money along with a wider variety of products which translate into a better standard of living.

1.3 KEY NETWORKS

Today, the phenomenon of globalization is integral to our lives. This is not only evident from the all-pervasive e-commerce but also the huge communications network made up of smartphones, fax, email, Facebook and all the other modes of connectivity imaginable.

Take the internet as an example; apart from collapsing distances and offering communication services efficiently, it is also a multi-dimensional tool that affects every aspect of our lives. Here is an attractive list, of what the internet has on offer:

- Enormous amounts of information
- Interactive forums for conferencing and collaboration
- Substantial savings in time and effort in performing various tasks
- Job opportunities in web design, computer technology, consultancy and sales

- Opportunities for working from home
- Quick and safe financial transactions
- Powerful platform for shopping and product delivery
- Valuable tool for delivering educational services online
- Electronic libraries and reference services

Given how the internet has opened up a brand new frontier of opportunities with tremendous global potential, it is hardly surprising that most enterprising individuals and companies waste little time in becoming an online presence. Without putting entire businesses or services online one might fail to tap into the lucrative economies of scale and scope.

• Note: Economy of scale: as the scale of production gets bigger the average production cost falls in tandem. Economy of scope suggests that with a broader selection of products or services a firm can lower production costs

The ability to capture bigger markets through information technology not only improves the profit picture of a globalized firm but helps with the health of the broader economy as well. This is because expanding markets are expected to create more employment opportunities thereby bringing about rising incomes and affordable living.

1.4 ECONOMIC THINKING

Sometimes people think of globalization as a buzzword for the new millennium but it is not so. The idea is as old as recorded history. Economists have long been fascinated with the idea of globalization.

Ever since the Industrial Revolution from 1760s on, new manufacturing processes were constantly changing the economic landscape. This meant not only steady improvements in the average living standard but expanding markets all around the world.

There were three key processes underlining early globalization:

- Mechanization of production using steam power
- Advent of steamships and railroads
- Invention of the telegraph

In sum, the visible changes occurring in transportation and communications made all the difference. By the early 19th century, sharp reductions in the cost of trade also meant that markets needed to expand as fast as possible and preferably unencumbered by too many government regulations.

The logic of these sharply changing processes of industry and commerce in the 1770s caught the attention of Adam Smith, a professor of moral science in Glasgow. Smith was among the first to realize that expanding commerce was the surest way to escape the daily grind of primitive living conditions and bare minimum existence. His ideas were laid out in his oft-quoted 1776 classic, *The Wealth of Nations*.

Smith illustrated the point by using the example of Native Americans who had been brought into the trading circuit by European traders. This allowed an exotic assortment of animal skins in the possession of the former to be traded for blankets, fire-arms and brandy made many thousands of miles away.

Smith's ideas on trade and commerce were reinforced further by David Ricardo, another prominent political economist and a very successful financial speculator. Ricardo (1817) introduced the idea of comparative advantage into the economic lexicon.

Since then economists have viewed trade to be closely tied to the notion of comparative advantage.

• Note: comparative advantage is based on the idea that the resource cost ratio of producing something varies across nations; this facilitates specialization and trade

Let's take a simple example. Consider that the resource cost of producing 2 bicycles in the U.S. is the same as that of producing 20 blue jeans; for China on the other hand, the resource cost of manufacturing 2 bicycles is the same as producing 30 blue jeans.



Since the resource cost ratio between bicycles and blue jeans stands at 1:10 in the U.S. while it is 1:15 in China, the U.S. has a comparative advantage in making bicycles while China has a similar advantage in making blue jeans. In this case it makes sense for the U.S. to specialize in bicycle manufacture and leave blue jean production to China. This is how trade permits specialization, thereby conserving precious resources in both countries.

At this point, it may be worthwhile to highlight the essential distinction between **comparative advantage** and **competitive advantage**.

• Note: competitive advantage is all about capturing market shares from competitors using a whole host of strategies that could extend from taking control of low cost resources somewhere in the globe to bypassing environmental regulations

In effect, comparative advantage is geared to benefit both parties to a trade but competitive advantage tends to benefit one party over another, with or without trade.

Both Smith and Ricardo were highly influential classical economists and their ideas eventually led most major economies of the western world to relax import taxes and other trade restrictions that had once stifled trade so as to favor very narrowly defined national interests. None of the classical economists explicitly used the word globalization in their learned treatises but the idea appears to have been foremost in their minds.

From a historical perspective, globalization has always depended on three important processes:

- Technological progress in both transportation and communication (i.e. falling cost)
- Elimination of barriers to trade (e.g. tariffs, quotas and other non-price barriers)
- Maintenance of a stable monetary unit of value (e.g. the gold standard)

As may be expected, nothing can spook global traders worse than an unstable currency. This fear was more or less eliminated with the adoption of the gold standard among most trading nations in the western world from the 1870s on.

• Note: Gold standard is a monetary system by which the value of a currency is set in terms of a stated quantity of gold for which the currency may be exchanged. For example, the U.S. gold standard was set after WWII at 1 = 1/35 oz. of gold; this meant that the official price of gold was set at \$35 for an ounce.

With the fear of arbitrary fluctuations in currency values thus dispelled, the road was clear for a free movement of financial capital across national borders. This was tremendously helpful in making globalization more feasible than ever before. Thus globalization can only thrive so long as there is a supportive institutional framework which involves:

- Legal mechanisms for establishing property rights and the rules of fair exchange
- Policies for establishing **fair standards** for labor and the environment
- Stabilization policies for managing economic swings and preventing financial panics

While most economists are fully committed to the idea of free trade, there is always a danger that the idea of globalization may be oversold. Often enough there is a lot of public opposition to globalization due to justifiable concerns about protecting jobs and incomes along with the long-term health of communities and environmental health². These issues cannot simply be ignored.

Understandably, everyone prefers a set of key institutions that can ensure a fair degree of international cooperation and keep the integrated markets in goods, services and finance in working order. If history is any indication, the slightest sign of weakness anywhere, be it geopolitical uncertainty or fractured trade relations, globalization could easily unravel rather quickly and with dire consequences.

1.5 EARLY ORIGINS

Some argue that the origins of globalization may be traced all the way back to the early civilizations of Sumer (modern day Iraq) and the Indus Valley (an area that overlaps India and Pakistan) both of which existed in the third millennium BCE. By far the most famous trade link of the ancient world was the Silk Road that connected China to ancient Europe some two thousand years ago.

By the Hellenistic age, active trade links connecting the East and the West had been well established. Such routes flourished during the period stretching between the death of Alexander the Great in 323 BCE and the conquest of Egypt by Rome in 50 BCE.

Comforting though historical bits may be, the truth of the matter is, what passes for globalization today is the result of a much more recent set of events:

- 16th century: transportation costs began to drop sharply
- 1760s: Industrial Revolution introduced steam power thereby further lowering the cost of carrying people and goods to great distances
- 1830s on: prices of goods and services along with the cost of travel began to come within the reach of the average individual

1.6 RECENT HISTORY

For most scholars, the recent history of globalization begins with 19th century British Imperialism. The British had been enormously successful in globalizing financial capital as they created a huge investment network around the globe with the help of a sizeable economic base of colonies.

Thanks to the British, there emerged a massive world market, a powerful testimony to the great magic of industrialization and commercialization that turned Great Britain into a global powerhouse. The secret to that success is generally traced to what has come to be known as triangular trade, involving Britain, her colonies and the global market place.

This is how it worked:

- Britain's colonies served as cheap sources of raw material for feeding the manufacturing mills back home
- The manufactured products from Britain were bound for the expanding global market
- Surplus products were dumped on the colonies at very agreeable terms



For British investors back home this was a full-proof formula for assuring growth and prosperity. As production costs were effectively kept down and markets continued to expand, profits could be raked in with careless abandon and the mother country became tremendously rich.

This production-distribution arrangement was also a hugely transformative process not only for the colonies but the home front as well. This was when the enclosure movement began to fence up the village commons for private use, thereby displacing settled populations.

• Note: Enclosure movement: the process (prevalent in England in the 18th and 19th centuries) by which land owned in common by all members of a village was taken into private use through legal means. This benefited the aristocracy while creating a steady stream of landless peasants who were eventually absorbed into factory employment, thanks to the Industrial Revolution.

However, it would be a mistake to think that the enclosure approach to overhauling the social structure is the stuff of old legends. Similar upheavals are still going on if you know where to look.

From the farming communities in Central America all the way to China and India, there are broad swathes of village life being gobbled up by global market forces. Like it or not, people are regularly pushed out of their sleepy existence and dragged into the bright lights of economic enterprise; it is often a gut-wrenching process of social upheaval, especially for those caught on the wrong side of economic progress.

So globalization is a mixed bag at best; just as it promises economic advancement, it also is a hugely transformative force that can drastically alter the lives and livelihoods of individuals and change the entire structure of societies. As we shall see later, the changes not only impact on human well-being but on the broader environment as well.

1.6.1 STAGE I (1870S TO 1913)

With the industrial revolution gathering steam in the 19th century, there came about a tremendous increase in world trade along with a significant amount of international economic integration. The entire process was commanded by mighty Britannia, who ruled the waves for another full century. This meant controlling all three essential pieces of globalization:

- technological progress
- financial capital flows
- trade in goods and services.

Historians consider the first stage of early modern globalization to be between the 1870s and 1913. This was when spectacular things began to happen as fast linkages began to be established between the Old World and the New World with products and financial capital criss-crossing the continents at a very fast pace. Here are a few salient features of that period:

- Britain was the only big economy to maintain open trade policies for a considerable length of time
- The imperial power of Britain achieved complete market integration as markets for goods and services were linked up along with complex networks for money and financial assets
- The U.S. protected itself with very steep tariffs on manufactured imports and these continued throughout the century
- The onset of a recession in 1870s triggered tensions in Continental Europe

As it happens, European farmers had been hit especially hard by the recession of the 1870s as the lowering of tariff barriers created an influx of cheap grains from the New World which brought in sharply lower prices. Not unexpectedly, there was a sharp swing in public opinion against globalization:

- farmers in Europe found common cause with businesses, seeking protection from cheap foreign imports
- tariff barriers were quickly erected which translated into highly restrictive trading practices
- cordial relations between nations quickly turned sour and war clouds began to gather overhead.

In 1914, with the onset of World War I, the cherished framework of globalization came completely undone. What ensued was a complete hiatus in global commerce that was to continue even after World War I had ended in 1918. The prewar trading relations did not fully for a very long while.

During the 1920s, a culture of mutual mistrust and suspicion had taken over the global trading regime; this shrank markets even further and led the world into the throes of the Great Depression. The economic malaise dragged on through the 1930s and eventually culminated in World War II (1939–45). The situation did not reverse itself until well after WWII had ended and not even then did globalization come roaring back.

1.6.2 STAGE II: POST-WWII (1945-1971)

One of the key problems concerning globalization is that it runs the risk of pitching trade policy against domestic policy goals. During the interwar period, the issue of trade and market linkages became highly politicized as nationalist spirits soared high and most of the affluent nations of the world looked inward.

However, as World War II drew to a close there was a renewed interest in finding a reasonable balance between an open global economy and sensible domestic politics. Under the Marshall Plan, the U.S. sought to help a severely demoralized Europe and Japan to rebuild by:

- reopening trade routes was seen as the surest path to economic success
- making available easy credit through the Marshall Plan

Preeminent British economist John Maynard Keynes helped to design a happy formula that would help nations to:

- open shop once again and engage in global exchange
- give top priority to their domestic concerns regarding full employment, economic growth, equity, social insurance and the welfare state.



What emerged was the Bretton Woods model named after the New Hampshire resort town where Keynes and the representatives from 44 nations had gathered for a conference in July 1944. The purpose of the meeting was to draft a completely new set of rules with which to govern global trade.

The Bretton Woods conference ran on two very powerful themes:

- full economic restoration of war-ravaged Great Britain
- allow for the advancement of American commerce and investment

Thus America's position as a global economic power was assured as was the establishment of the U.S. dollar as an international reserve currency backed by gold.

• Note: International reserve currency refers to money that is readily acceptable in global trade; modern examples are the U.S. dollar, the U.K. pound, the euro and the Japanese yen.

The Bretton Woods agreement was a brilliant piece of institutional engineering that equipped the world economy with trading rules that could be set entirely by international organizations.

For the most part, Bretton Woods was powered by the idea of **multilateralism** involving all trading nations. The aim was to:

- promote multilateral trade agreements among nations in the interest of enhancing global trade
- create a giant tariff-free zone within which all participants may equally share without fear of sudden market collapse

Three key institutions were charged with overseeing the globalization dynamic:

- The International Monetary Fund (IMF): intended to ensure monetary stability and currency values.
- The World Bank: designed to address the development needs of aspiring market economies.
- A General Agreement on Tariffs and Trade (GATT): an international forum designed to help dismantle the old import restrictions from the 1930s and establish new rules for fair trade.

The system proved to be enormously successful as global trade returned to a fast clip and proceeded to double in volume just about every decade. For the next three decades the Bretton Woods system proved to be very effective in steering the world economy toward complete restoration, thereby promising lasting growth and prosperity.

1.6.3 AN UNRAVELING

Tragically, nothing good lasts forever and the Bretton Woods system was no exception. As it happens, free trade and exchange depend on maintaining balanced trade between nations. This means that nations cannot enjoy trade surpluses endlessly while their trading partners are saddled with mounting trade deficits.

- A **trade surplus** happens when the exports of a nation (what it sells to other nations) exceeds its imports (what it buys from elsewhere)
- It is impossible to have a trade surplus without a corresponding **trade deficit** (imports > exports) elsewhere in an interconnected global market.

The most current example is China's ongoing trade surplus with the U.S. which has meant a widening trade deficit for the latter. So long as the International Monetary Fund and the World Bank can smooth out the wrinkles, all is well. However, any time a nation refuses to part with its trade surplus, there is likely to be trouble.

This is exactly what began to happen, starting in the mid-1960s. By then the industrial and commercial stature of the United Kingdom, Europe and Japan had been restored to pre-WWII levels. For the U.S. this translated into:

- A growing trade deficit (i.e. imports greater than exports)
- A net outflow of U.S. dollars as the export of dollars exceeded imports
- A demand from trading partners to convert U.S. dollars into gold
- A steady drain in U.S. gold reserves

As a result the U.S. faced an immediate imperative to address the value of the dollar since an insufficient gold reserve meant that the dollar would have to be devalued. This meant two clear choices:

- Make the dollar less abundant in global exchange which would mean a corresponding scaling back of the domestic economy given that money is the life blood of a market economy
- Suspend the conversion of dollars into gold with immediate effect so as to stop the rapid depletion of U.S. gold reserves.

The Nixon government chose to abandon the gold standard in 1971 and made the dollar into a **floating currency**. Henceforth, the value of the U.S. dollar would be determined by the rules of supply and demand.

• Note: the value of a **floating currency** is determined the forces of demand and supply in the global market. Thus a country's trade deficit (surplus) would cause the value of its currency to fall (rise) in global exchange. In effect, the burden of correcting a trade imbalance falls on the currency.

Although globally unpopular, this unilateral move by the U.S. to abandon the gold standard created considerable legroom to meet her ongoing trade shortfall. Henceforth a trade deficit could simply be paid for by issuing more dollars.

Unfortunately, that easy resolution came to be rudely interrupted in 1973 by an oil embargo (i.e. a steep cutback in oil supply) orchestrated by the Organization of Petroleum Exporting Countries (OPEC).



Since oil supplies are crucially linked to food production, travel, transportation, homeheating and the manufacture of plastic containers all the way to making printing ink and synthetic fibers, the result was:

- a runaway inflation in the U.S. for which the country was not prepared
- a steep increase in production costs leading to rising unemployment

Stagflation is a term that economists use to refer to an undesirable combination of unemployment and inflation. This mix is widely dreaded for it defies all conventional policy fixes.

The Nixon government tried desperately to contain the growing malaise by imposing tight price controls but that simply made things worse. What emerged were long lines at gas stations as a beleaguered nation tried to cope with the scarcity of oil through strict rationing.

Ultimately, it was up to the Federal Reserve to take effective steps. This meant slaying the inflation dragon through steep cuts in the money supply. This quickly raised interest rates while the unemployment rate also reached a high point not seen since the Great Depression.

Eventually calm returned, but the Bretton Woods model had to be scrapped completely. We might say that the most prominent casualty of the stagflationary 1970s was the Bretton Woods system.

1.6.4 STAGE III: 1980S ON

Looking back, the 1945–73 period was enormously successful as economic growth continued virtually uninterrupted. It is often referred to as the golden age of globalization during which a wide variety of market-based economies flourished. It was a period that witnessed:

- remarkable advances in the processes of industrialization
- a healthy amount of global inflation that kept profits high
- stable monetary value secured by the U.S. dollar

Through it all, the United States emerged as a shining example of free market economics that most other developed and developing nations could only hope to emulate. That stellar image lost some of its luster as the gold standard was dismantled in 1971 but most global currencies continued to be pegged to the U.S. dollar as a prominent international reserve currency.

• Note: Dollar peg means that the exchange rate between a currency and the dollar is artificially fixed so that the two currencies will move in tandem in global exchange. This calls for active currency management.

Not surprisingly, the convenience of a dollar peg allowed trade imbalances to continue but these were no longer viewed as a serious threat to economic survival.

In general, the value of a currency depends on:

- the state of a nation's economic health as measured by inflation and growth prospects
- the extent to which financial capital can easily move in and out of a country
- the readiness of the national government to defend the value of the currency

All of these factors are important in driving global investor sentiments as well. As it is best not to spook these important players for fear of doing serious damage to a currency and an economy, it is best to manage a currency sensibly.

For the most part, this means that when its value rises in global exchange, more of that currency must be released by the issuing country's central bank so as to bring its value down.

This may be accomplished by

- exchanging the currency for an international reserve currency (e.g. U.S. dollar or the British pound)
- buying back the currency by drawing down gold reserves

Exactly the opposite set of moves are needed to strengthen a currency.

At any rate, by the mid-seventies, the countries that could not see their currencies to be completely at the mercy of global capital markets looked for a safer alternative. For the nations in Europe this meant:

- developing a new exchange rate regime to coordinate currency value with trade flows
- developing strategies to promote economic stability for the entire European trading zone

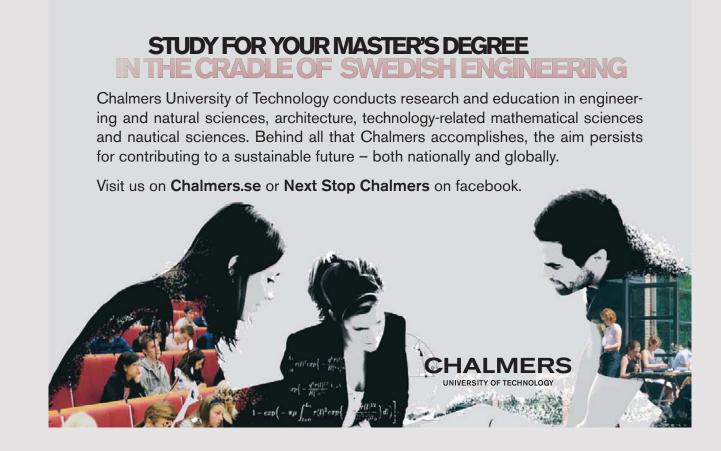
This led to the establishment of the European Currency Union which eventually created the euro as the official currency for 18 countries in the eurozone.

Thus in many ways the economic unraveling threatened by the stagflationary seventies also ushered in a new phase of globalization in the 1980s. Policymakers everywhere realized that there is always a stiff tradeoff between domestic autonomy and the value of one's currency in international exchange but there were definite payoffs in playing the global market.

As new technologies began to come on board by the early 1980s, the mechanics of globalization received an added boost. This was the onset of the information age that eventually came to be known as the ICT revolution

• Note: ICT stands for a very potent combination of the internet, computers and telecommunications. Some think of it as a second Industrial Revolution that has undoubtedly changed the world for ever.

Somewhat fortuitously, the U.S. government in the early 1980s had already begun to establish national supercomputing centers all over the country. This helped pave the road for commercial internet service providers who were jockeying for the opportunity to create newer channels of commerce.



With the new computer-based information technologies, globalized enterprise was revolutionized. This happened through:

- The establishment of 24 hour financial capital markets
- A proliferation of multinational companies (MNC)
- A push for further liberalization of capital controls to open up capital market around the world

It was a definitive shift in the dynamics of globalization that received another boost when:

- The Berlin Wall came down in 1989
- Markets in Eastern Europe opened up to global trade in late 1989
- The Soviet Union collapsed in 1991

1.7 HYPERGLOBALIZATION

On the face of it, the 1980s was a huge achievement in global market-building but it also called for a synchronization of efforts on all fronts which for the most part meant cutting down cumbersome government regulations that not too long ago controlled from airfares to telephone charges to the interest rates offered on bank deposits.

Thus hyperglobalization came to stand for a thorough redesigning of the domestic policies of nations according to a pretty standard formula sheet³:

- Paring down domestic budget deficits
- Keeping domestic inflation under control
- Scaling back social welfare programs

This meant a complete redesign and overhaul of structure of globalization, made official with the inauguration of the World Trade Organization (WTO) in 1995.

In many ways hyperglobalization became a prominent trademark of the new millennium as ongoing changes in information and communication technologies brought about further product and process innovations in global market economies.

This meant a complete reorientation in macroeconomic thinking as:

- entire nations felt compelled to play up to the interests of MNCs
- financial capital markets quickly rose to dominate global trade negotiations
- inevitable social dislocations continued to be downplayed

Undeniably, putting globalization into overdrive generated economic stresses and social disruptions that raised a few serious concerns about:

- public health (e.g. a salmonella scare in 2008 regarding Mexican tomatoes)
- **public safety and security** (e.g. heightened airline passenger and cargo security in recent years)
- **security of property rights**, especially, intellectual property rights (e.g. the advent of fake Apple stores in China in 2011)

While it may be easy to say that in the long haul all of these problems would work themselves out, there is always a danger that the entire globalization framework could also come unhinged, quite unexpectedly, thereby producing many undesirable consequences that may be difficult to contain.

1.8 WEIGHTLESS ECONOMY

The label "weightless economy"⁴ appropriately describes a world ruled by ICT. It suggests a knowledge-based economy that is full to the brim with products that are completely made up of digital bits and bytes.

In general, the popular information (weightless) products possess several attractive features:

- incredible lightness of content
- **infinite expandability** in the sense that they may be copied freely without exhausting the original in any way
- **collapsibility of distance** in the sense that information products may be delivered over great distances without being destroyed
- **collapsibility of time** as information products could be transmitted instantaneously

So in our weightless economy the products are not only lighter but some of them are completely virtual as well. Think of the huge variety of phone apps that are at our finger tips. That's only one aspect of our engagement in:

- virtual exchange in cyber space
- making virtual payments as necessary
- using **virtual money** (e.g. bitcoins that are a software-based online payment system)

Of course the internet is a central part of the weightless dynamic. It provides an excellent medium for delivering computer software, new media, video entertainment, healthcare advice, educational services, pricing and supply data as well as back-office services over very large distances around the globe almost instantaneously.

Also, thanks to ICT, businesses can now get by with sharply reduced inventories as they can also manage their supply chains and the distribution channels much better than ever before.

Nowhere is this more obvious than in the areas of banking and investment. In a highly networked world, banks and other financial institutions can:

- advertise and promote their newest products and services
- carry out orders to sell, buy, trade and manage financial assets
- personalize their services to best address the special needs of clients
- conduct all manner of financial transactions in a timely fashion
- monitor changes in the financial world so as to devise effective strategies

Notice how bill payment has so easily come online with such innovations as PayPal and Amazon Payments. Today, most major credit card transactions are conducted on line which has made life a lot easier for those who have to move fast between places and constantly think of new strategies of adaptation.



Quite justifiably, globalization is often credited with promoting huge networks of services that include:

- telecommunications
- insurance
- accounting
- banking and other financial services
- social networking

These days, most people go through E-trade almost as a matter of routine and these trades have a huge impact when it comes to buying and selling financial assets or settling claims as we shall see in a later chapter.

1.9 BUSINESS DEALS

Through the established global networks our businesses can become a massive global presence. This is because a huge computerized network helps to

- share information collected from all over the globe
- act instantly on price signals and other market shifts

Currently, Goldman Sachs, a huge investment bank based nominally in the U.S. operates out of 170 locations in more than 90 cities across 30 countries. This reflects the fact that the enormously popular and profitable sector of financial portfolio management now requires a global presence.

Most particularly, the pension funds and mutual funds on which depends the economic security of nearly 60% of all American households now feel obligated to have a global reach and try to address the service needs of bigger segments of the global citizenry.

The same may be said about Amazon.com which continues to meet our everyday shopping needs so seamlessly. It is a sobering thought that the company is counted among one of the top ten global retailers by sales⁵. In fact, global strategizing, which means devising clever schemes to capture a bigger market share, happens to be the key to Amazon's continued success.

Of course this also means that the web-retailer has to be ever so vigilant about

- constantly changing customer preferences
- newer ways to satisfy customer needs
- new product and process innovations cropping up

Perhaps no business enjoys so sizeable a global footprint as the fast food icon, McDonald's. Today the company operates in more than 100 countries, lending its brand to more than 80% of the restaurants that are owned and operated by independent local business people.

As wonderful as the global business opportunities sound, when it comes to economic development, not every nation on earth can get onto the global bandwagon using information technology. This is because they often lack:

- a large pool of well-educated and highly skilled labor
- a vital institutional network that protect property rights and legality of action
- stable governments that are favorably disposed toward a market-based economy

It is only with this kind of supportive institutional base that nations can take advantage of the information revolution and open up to global markets. This explains the tremendous success of the Asian Tigers, a moniker for a select group made up of Singapore, Hong Kong, South Korea and Taiwan.

Lately, global attention has shifted to the BRICS consortium of nations: Brazil, Russia, India, China and South Africa. These nations are generally credited with having fast rates of growth and fairly stable governments that permit fruitful connections with steadily expanding global markets.

1.10 NEW CHALLENGES

Thanks to information technology, when it comes to virtual products, the marginal cost of production is close to zero. In other words, it costs virtually nothing to manufacture a virtual product that can be consumed instantaneously without any consideration of time or space.

The numerous apps on our smart phones or all the music that we can easily download are perfect examples. However, the flip side of zero marginal cost, if we follow the basic rules of economics, must mean zero price. In a fiercely competitive global environment it could hardly be otherwise.

• Note: In economics a competitive market solution occurs whenever the marginal cost of a product equals its competitive market price.

This however presents a problem since there can be no incentive for inventing or innovating in a virtual product the market price for which is near zero. This is where institutional factors take on considerable importance which also means a bigger role for the government to play.

Most pressingly there is a need to protect cherished enterprise from marauders around the globe. Hence a growing need for:

- A **legal structure** for establishing property rights, especially, intellectual property rights by way of patents, copyrights and trademarks
- Regulating market access through licensing and protecting established domains
- Generous research funding to foster new inventions and innovations
- Ensuring **adequate protection** to individuals and businesses against unfair trading practices and unwanted incursions into personal or financial databases

Looking over the history of the last century, there can be no doubt that the merits of the globalization game depend on how it is played. The biggest challenge by far is to strike a reasonable balance between:

- Ensuring technological progress that impacts on product and process innovations
- Eliminating trade barriers by way of tariffs, quotas and other restrictions
- Maintaining a stable monetary value to minimize investor uncertainty



In effect, so long as information technology continues to make our daily tasks easier by permitting faster dissemination of information and making all daily exchanges cheaper and easier, there is an ongoing need for the government to get involved and stay involved, either directly or indirectly.

Letting up on any one of these might bring globalization to an abrupt halt. As we saw earlier, the Bretton Woods system could only liberalize trade after putting capital controls in place and reestablishing the gold standard so as to ensure monetary stability.

In contrast, during the 1980s and 1990s there was a great emphasis on liberalizing both trade and capital flows with more or less free floating exchanges all around. This makes the latest phase of globalization most challenging since:

- the high-income countries are better able to play global markets to their own advantage
- it is tougher for the developing countries to meet the demands of global competition
- the directives from IMF, the World Bank and the WTO often conflict with the domestic priorities of nations

1.11 MIXED PICTURE

Today very few can deny that consumers are one of the most clear beneficiaries of globalization. This is because globalization allows:

- a great selection of products from all over the globe
- affordable prices and ease of comparison shopping
- online service for customers and accounts management
- online payments and online banking

It is true that a cheapening of the essential commodities for daily living is of tremendous benefit to us but since wage is also a price, this could also mean shrinking paychecks and diminished job prospects for some.

This makes globalization a mixed picture at best, a subject that will be taken up again in later chapters. For now it is sufficient to note that not all areas within an economy are totally impervious to the risk and uncertainty fueled by globalization.

Not surprisingly, despite singing the glories of free trade, even the most affluent countries continue to protect their labor-intensive resource-processing and agricultural sectors against the influx of cheaper imports. Unfortunately, these bits of protectionism hurt the developing nations that rely on the export of agricultural and natural resources as a viable path to economic development.

In other words, free trade is not such an easy idea to embrace and globalization has its own set of complexities. Nothing can make this clearer than one of the most contentious areas concerning liberal trade that happens to be human migration.

Looking around, immigration continues to be a hot-button issue in most elections in the developed world. This is also why most high-income countries are also grappling with tight controls on the inflow of immigrants. In recent history, human migration has gone through noticeable changes; this again has had a lot to do with falling transportation costs, national policy swings and geopolitical stability. Consider this:

- All through the 19th century until the eve of World War I, the volume of migration between continents increased tremendously
- Between 1914 and 1950 migration was sharply cut back due to restrictive immigration policies and the onset of two World Wars and a global depression
- From 1950 to 2000 a steep fall in transportation costs caused migrant flows to rise once again

What complicates matters is that once we introduce the human element to the globalization mix then it is not so easy to see unadulterated benefits everywhere. Just as cheap imports tend to depress prices by increasing competition, a surge of immigrants could easily depress domestic wages thereby dimming the job prospects of a lot of people.

This is one of the reasons that there is a global drift toward cultivating a regional consciousness. As late as 2013, the BRICS nations formed their own development bank. It was a deliberate move to counter the power and influence of the IMF, the World Bank and the WTO. There is also some talk about dislodging the U.S. dollar from its global reserve currency status.

Thus it is safe to say that the globalization dynamics entails the creation of special institutional arrangements to better suit particular needs and interests not only of the developed world but that of the emerging nations as well. It is quite possible that we may be heading toward another Bretton Woods type moment but as to that, only time will tell.

Questions

- 1. What are the essential features of globalization? Which of these might be the most important? Why?
- 2. How is the latest round of globalization different from the earlier variants? What are some of the telltale features that make for the difference?

- 3. What was the Bretton Woods system supposed to achieve? Explain the circumstances that led to its dismantling.
- 4. What is the meaning of hyperglobalization? What may be some of its obvious risks? Explain.
- 5. While globalization may extend the reach of markets, it also enlarges risks and uncertainties. Do you agree? Why or why not?
- 6. What do currency values have to do with the pace of globalization? Since we do not have a gold standard to keep currency values under control, what makes globalization work?
- 7. Since the US dollar is a global reserve currency, the American economy is in a particularly strong position compared to most other nations. Do you agree? Explain.
- 8. What does regionalization mean in our world today? Where does it stand in relation to globalization?
- 9. What do popular commentators mean by a "weightless economy"? Does it pose any special challenges for policymakers? Explain.
- 10. Is it fair to say that globalization cheapens products as well as labor and that creates a negative dynamic? Why or why not?



2 STRUCTURE OF GLOBALIZATION

2.1 INTRODUCTION

Today the citizens of prosperous nations get to enjoy the best foods, the best clothes, clean streets and houses filled to the gills with modern equipment. In addition, there is also excellent healthcare, good education, mostly crime-free neighborhoods and above all a fairly pollution-free environment within which to enjoy all the good things in life. Who can ask for anything better?

Presumably, the more we can produce and by using fewer resources, the better off we should be in the long run, provided of course we can trade freely. That is the secret to wealth creation according to the father of economics, Adam Smith, as he is commonly understood.

Thus a fruitful combination of technological progress and free markets is widely seen to be a sure formula for economic well-being. Margaret Thatcher, the prime minister of the United Kingdom from 1979 to 1990 was an avid supporter of free markets and globalization; she is famously credited for promoting the acronym TINA (there is no alternative).

What passes for globalization today, is made up of many of the desirable traits that make up free market economics:

- Technological progress causing the cost of transportation and communication to fall
- industrial restructuring triggered by market-oriented reforms across countries
- Elimination of trade barriers and active promotion of free trade
- Growth in the global reach of multinational corporations (MNC)
- Globalization of finance and financialization of national economies

As may be seen, the list above covers much more than what had been noted earlier. In this chapter we shall dig a bit deeper into the nature of trade, the evolution of global trade agreements, the cost of trade, the makeup of currency markets and the nature of capital flows, concluding with the overarching question of economic freedom.

2.2 IMPORTANCE OF TRADE

Once we accept technological progress as the backbone of economic advancement, globalization follows as a logical extension. This is because the only way for technological progress to be fully adopted for economic gain is through market expansion and this is made possible through trade.

It is widely believed that an increase in the ratio of the volume of trade of a country to its GDP increases its per capita income. According to the Organization of Economic Cooperation and Development (OECD), nations that are relatively open to trade tend on average to grow much faster than those who are reluctant about opening up fully to trade¹.

The OECD is a choice club of prosperous market economies that are also functioning democracies.

Note: Established in 1961. The **OECD** is an exclusive group of 34 prosperous nations around the world that regularly turn to each other to identify problems and discuss solutions. The member nations have to be operational democracies and have market-based economies.

Apart from serving as a unique forum for airing the shared concerns of nations that are exposed to the changing economic currents all over the globe, the OECD is also an excellent source of economic statistics that enables us to gauge the health of the global economy.

Following Smith's impeccable logic, the prosperity of a nation depends on trade and both are intimately tied to the ideas of:

- Division of labor and productivity
- Specialization and efficiency

Smith had pointed out long ago that so long as each one of us specializes in what we do best, all of us can be more productive and through free exchange we can all be better off. The same logic applies to international trade as well so that allowing nations to specialize in whatever they can produce best and then engaging in free trade must make all better off.

If we believe that a society needs to improve the overall productive power in order to raise the average standard of living, then there is no alternative but harness most of the early breakthroughs in technology to profitable production through expanding markets.

Even a casual comparison of the lifestyle of the average person in an OECD nation with that of a person in the developing world should convince us of the logic of that simple formula. The member nations of OECD have been enormously successful in generating very high standards of living for the best part of their citizenry and much of it has to do with their active participation in trade.

According to a report from the United Nations Conference on Trade and Development (UNCTAD), the world merchandise trade volume has grown by about 50% since 2000, even after allowing for the dip caused by the financial crisis of 2008 that threatened to bring down the entire global economy².

At any rate, what is most striking about the developments since the last crisis:

- The emerging market economies on the path of development happened to gain the most from the post-crisis growth spurt; this is most visible in their merchandise exports which has increased more than 100 percent since the crisis outbreak.
- The merchandise export volume of most advanced economies has remained relatively flat since the last crisis.

Taken altogether, it is as if the advanced economies have reached a point of saturation in terms of both production and trading while the advancing economies are nimble enough to reap the biggest gains offered by the expanding global markets.

Luxurious accommodation

nd c

Central zone 1 & 2 locations

Meet hundreds of international students

BOOK NOW and get a £100 voucher from voucherexpress

Nido <u>Student Living</u> - London

Visit www.NidoStudentLiving.com/Bookboon for more info. +44 (0)20 3102 1060

We should normally expect the advanced nations to be better positioned in terms of buying power and market size to take advantage of any opportunities that crop up in global trading before any of their emerging market counterparts but that has not been the case.

This contrasting picture is not too difficult to explain considering that:

- the exports of the advanced economies tend to be very technology-intensive which makes them somewhat pricey and of limited appeal in global markets.
- the exports of the emerging markets are simpler manufactured goods mostly using less complex technology which makes them cheaper.

Consequently, when nations come out of an economic slump the cheaper goods tend to be snapped up earlier and faster than the more expensive goods. The only exceptions are:

- mineral resources (e.g. bauxite for aluminum and cobalt for aircraft engines)
- basic staples (e.g. cereals and sugar)

These are the primary exports of many very poor countries which explains why they tend to benefit less when markets expand but are hurt more when global markets shrink.

Back in 1981 the European Union had the highest share in both the total global output of goods and services and world exports. By comparison, China's share in world exports and global GDP was miniscule. All that changed with the tearing down of the Berlin Wall in 1989 as both global merchandise exports and imports moved onto a faster clip.

By the end of the last century, China had successfully doubled her share of global exports whereas developing Africa, trading mostly in natural resources and staples, faced a steep loss in its share of world exports which plunged even further by 2010.

Today the U.S. happens to have a smaller share of world exports compared to the European Union which continues to enjoy a lion's share of the global markets. Evidently, the trading positions of nations are not fixed on world charts so that today's leader could very well trail behind the competitors tomorrow. This explains why most nations are forever on the lookout for newer opportunities in the global circuit.

2.3 GATT TO WTO

As we have seen earlier, globalization is neither a smooth nor a continuous process. It was completely suspended in the period between the two world wars. With the conclusion of World War II in 1945, the United States took up the charge of reviving globalization.

As a dominant player on the global scene with both the military power and economic resources to match, it was only logical that the U.S. should try to revitalize the global economy. This was the best way to allow the other industrial powers to regain their economic footing and return promptly to prosperity.

However, the pre-war memories being fresh in the minds of the architects of reconstruction, every effort was made not to make global markets a free-for-all for the powerful players. What emerged from the urgent discussions at government levels was the General Agreement to Tariffs and Trade (GATT).

GATT originally had 23 signatories and was negotiated at the United Nations; it was passed in 1947 and implemented in 1948. It proved to be an indispensable forum for:

- setting global trade back on track to fast recovery from the devastation of war
- bringing all the players onto a system of useful dialog to synchronize policies
- providing a platform for useful negotiations

Globalization was thus recreated and set on a new and more sensible course with a whole bunch of institutional safeguards put in place. As was seen in the previous chapter, the combination of GATT and Bretton Woods freed up trade and the scheme worked beautifully for most of the post-WWII years until about the early 1970s.

Here it is worthwhile to recall that with Bretton Woods establishing the gold standard in 1944, global trade had been given the solid foundation of a stable monetary unit. Thus there was considerable credibility lent to global trading.

Not surprisingly, when the U.S. abruptly went off the gold standard in the 1970s, it introduced considerable uncertainty all around. However, given the overall economic strength of the U.S., the dollar continued to serve as a premier international reserve currency in terms of which global trade could continue uninterrupted.

Over the subsequent decades, global trade began to outgrow the operational bounds set by GATT so that there was growing support for redrawing the rules of trade. This led to the creation of the World Trade Organization.

Note: The **World Trade Organization (WTO)** was created in 1995 as an enlarged version of GATT with the intention of regularizing global trade and enforcing the agreed upon rules of free trade. As of June 2014 WTO had 160 members.

2.4 TRADING COSTS

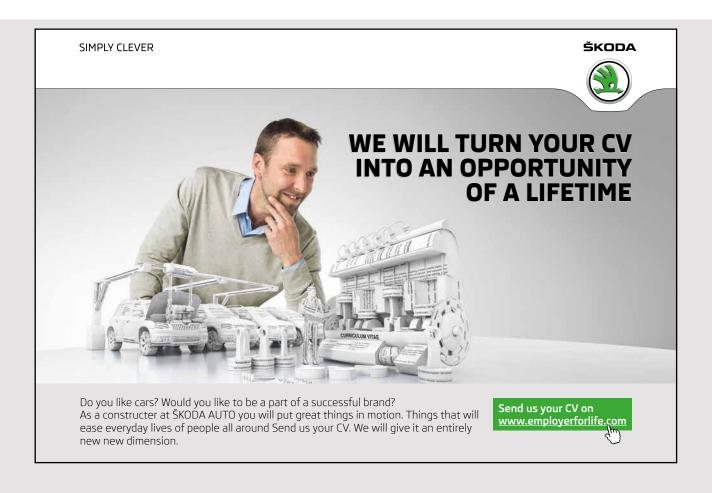
International trading volumes are very sensitive to fluctuations in transportation costs. As we have seen earlier, falling transport costs in the century or so before World War II made possible economic integration within and between countries; most of the decline in cost was due in large measure to the large infrastructure investments and breakthroughs in transport technology.

A 2009 report from the World Bank makes two interesting observations³:

- A 10% increase in trade costs tends to reduce trade volumes by 20%.
- A larger trade volume brings down unit transportation costs.

China is the best example of both findings. China's enormous trade volume (bulk shipping) is a significant reason for low unit transportation costs. This creates its own virtuous circle:

- Scale economies in transport lead to falling unit transport costs.
- Falling transportation costs lead to increased trade volume.
- Cost advantage encourages other countries to move production to China.



It is estimated that by the mid-1970s, the overseas transport costs were a fraction of what they had once been in 1900. In terms of falling transportation costs alone, globalization may be looked at in terms of two distinct waves:

- First wave between 1840 and World War I is considered conventional as it relied on little more than comparative advantage
- Second wave, from 1950 on was driven by economies of scale and product differentiation

The "conventional" wave witnessed improvements in technology that created ever-newer modes of profitable transport of people and goods. This transportation revolution advanced through:

- the use of canals and waterways in Europe and the Americas (1750s to 1900)
- the appearance of the steamship in the early 1800s
- the advent of railways in England in the 1830s.

Initially, the increased speed and reliability of service helped the prices for both manufactured and agricultural goods to converge. Internationally, steamships lowered maritime transport costs and in combination with all the other innovation in transportations made large scale trade possible (e.g. British trading machinery for Indian tea, Argentine beef and Australian wool).

The second wave suggested a new trading pattern. It began after 1950 when transport costs fell even further so that even small differences in products and tastes allowed trade between similar countries in Europe and North America. In contrast with the first wave, the second was driven more by economies of scale and product differentiation rather than simply differences in resource endowments.

With the arrival of the jet engine, air transport costs came down rather quickly from the mid-1950s to the early 1970s. What helped tremendously was the lifting of government regulation from trucking and rail in the 1970s and the deregulation of maritime rates in 1984.

Not surprisingly, freight costs halved again since the mid-1970s. This was driven by:

- increased investments in transport infrastructure
- development of better ways for capacity use
- vast improvements in road and air transport
- containerization revolution in maritime transport

Not surprisingly, container lines have continued to build larger and larger ships, thereby generating further scale advantages that have driven down the transport cost per unit of cargo.

By 2000 the cost of ocean shipping came down to a fraction of what it was in 1930 while the advent of the jet engine drove air freight costs down sharply since the mid-1950s to the 1970s. It is estimated that between 1955 and 2004, there was more than a 90% reduction in air freight prices per ton-kilometer (see World Bank 2009).

Lately, the major cost declines in all modes of transport have allowed the ship-railroad-truck channel of cargo transmission to become smooth and continuous with virtually no time wasted in transfers or delays. This is because there are no longer significant gaps between switching transportation modes from ship to rail to trucks or moving cargo in the reverse direction.

2.5 FAVORABLE WINDS

The great strides in technology aside, the spectacular fall in transport costs has been possible very substantially due to:

- significant transport reforms (e.g. integrating rules across modes of transport)
- elimination of trade barriers (e.g. tariffs and quotas)

On the heels of it came the digital revolution that unleashed a speed of transmission and communication not imaginable even a short time ago. It effectively shrank the world with freer and faster flows of information, driving a steep fall in communication costs. As a result there have been great advances in:

- fragmenting production processes so that not everything has to be done in one place
- outsourcing and offshoring of intermediate goods production contributing to great cost-saving innovations

A good example is a PC made in America for which the motherboard and circuit board may have come from China. This produces huge benefits by way of specialization and scale economies along with affordable prices for the consumer.

Furthermore, with a fall in telecommunications costs large cities in the U.S. and Europe started outsourcing accounting services and call center facilities to smaller cities in Europe and North America. With further decreases in the telecomm costs, the offshoring orbit extended from the West to cities in distant India and the Philippines.

As a result, the last three decades have seen tremendous growth in intraindustry trade.

Note: Intraindustry trade occurs when the same type of good is exported from a country as well as imported into it

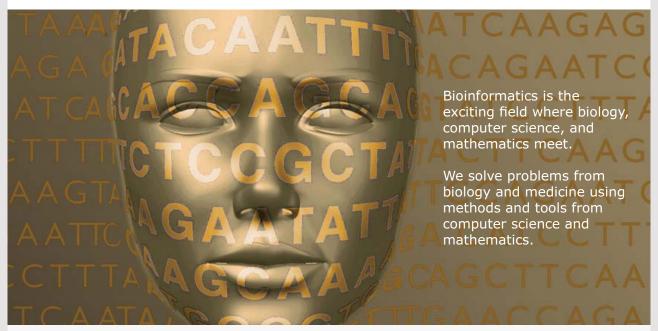
Consider for instance cars being exported as well as imported. The same applies to telecommunications equipment, computers and textiles as well. By far the simplest examples are Samsung, Motorola and Nokia phones that involve multipoint production and assembly around the globe; the same may also be said about TV remotes and textile products.

Intraindustry trade now accounts for more than half of all global trade. This has gone up for all types of goods and services:

- primary goods e.g. oil and natural gas
- intermediate goods e.g. auto parts and computer help-lines
- final goods e.g. food and beverages



Develop the tools we need for Life Science Masters Degree in Bioinformatics



Read more about this and our other international masters degree programmes at www.uu.se/master

Note that if countries could only trade in final goods or finished products then international living standards could not converge very fast. On the other hand, when trade involves production inputs or intermediate goods then the potential for specialization and trade increases significantly thereby giving a further boost to the virtuous circle of globalization.

2.6 CAPITAL FLOWS

So much for global merchandise trade. Let's now turn to the next important bit: private financial capital flows. As luck would have it, this important dimension of globalization is very often obscured by much animated talk about global trading volumes.

However, in terms of size alone, financial capital flows are generally much bigger than merchandise trade.

The following are the essential aspects of capital flows:

- Commercial loans involving banks and large organizations
- Foreign direct investment (FDI)
- Foreign portfolio investment (FPI)
- Official capital flows between nations

As it happens, economic development is an unwritten but prominent goal of globalization. This is because economists believe that the population-rich but capital-poor countries of the world could easily set themselves on the path of economic growth and development if they received a little help from foreign investors who have financial capital to spare.

Until the 1980s, commercial loans going to companies and the governments of developing countries were the most common kind of foreign investment. Since then, FDI and FPI have been much more common and have become an integral part of globalization. These are mostly private investments that do not have the backing of governments.

More encouragingly, FDI involves a long-term relationship between investors residing in one country and the development plan being drafted in another country. The arrangement is supposed to be mutually beneficial in the sense that:

- The receiver nation does not have to rely on local funds which may be insufficient or impeded by the absence of a well-developed capital market
- Receiver nation enjoys the benefits of development in a cost-effective way
- The donor nation receives handsome returns on the invested funds.

By comparison, foreign portfolio investments (FPI) mostly consist of stocks and bonds issued in one country that are made available to citizens in other countries.

- Note: A stock or equity is a share issued by a company that suggests part ownership; stocks pay a share of profits called dividends
- Note: A bond or security are a form of debt (also called debt instruments) that earn interest. Bonds are essentially IOUs issued by the borrower, usually a corporation or a government, who are obligated to pay interest.

When a company goes belly up, bond holders have to be paid first before stock holders can claim any value on their stock holdings. In effect, one's shares in a company are subordinate to the debt owed by the firm.

Given that a whole bunch of stocks and bonds could be pooled into marketable securities that are claims on a predicable stream of income over time brings in a maddeningly complex world of finance. This leads to clever financial strategizing involving the packaging, promotion and selling of financial assets around the globe.

Thanks to the advent of fast computers, the art of creating layered claims on income-generating assets has become sort of routine. The claims created on pooled assets (e.g. home mortgages, student loans etc.) are called derivatives which are freely traded in global markets and at last call commanded more than \$700 trillion which is roughly ten times the global GDP⁴.

• Note: Financial derivative is a contract between two or more parties the value of which is determined by underlying assets that may be stocks, bonds, commodities or currencies. Most of these contracts are backed by high levels of debt.

In effect, enormous sums of money are constantly on the move around the globe trading claims on intangible assets in a weightless world ruled by information technology. However, this also means that any letdown in investor expectations, no matter how slight, in one part of the world could easily send tremors far away and that also with tremendous speed.

Of course there are also many financial transactions not covered by direct investment or portfolio investment but they could still have sizeable impact on the capital flows between nations. Collectively these make up financial globalization which over the past three decades has grown at a much faster pace than trade globalization. • Note: Financialization is the linking up of the markets for financial assets across nations which offers lucrative returns for investors as well as for speculative capital. It helps domestic borrowers to find international lenders and opens up access to opportunities for investment overseas.

Financialization gathered momentum ever since financial deregulation took hold throughout the 1980s. By the early 1990s, private capital flows from the developed countries started to reach the shores of the developing nations. Looking back, this occurred in two strong waves, demarcated also by two very significant financial crises:

- First was the emerging market crises of the late 1990s that were linked to a Thai baht crisis
- Second, the global financial crisis of 2008 which originated in the U.S. and proved to be comparable in potency to the Great Depression of the 1930s.

Interestingly enough, while the developed economies have been pioneers in financial integration the developing countries have taken a long time to warm up to the idea. There are still a lot of global players who are a bit reluctant to take the plunge.



The most famous example is China who, despite the massive size and trading prominence, continues to have controls in place that carefully regulate the capital flows into and out of the country. This reticence is understandable in view of the Asian financial crisis of the late 1990s.

The Thai baht crisis in 1997 struck when international banks and private investors decided to pull out of the Southeast Asian market all of a sudden. As a result, the baht, the currency of Thailand, took a sharp nose-dive pulling down other currencies of neighboring countries with it.

In contrast, the financial crisis of 2008 centered around mortgage-based assets, the prices of which collapsed all of a sudden as the housing bubble that supported it popped quite unexpectedly. This caused credit lines around the world to freeze up, threatening a global economic meltdown.

2.7 CURRENCY MARKETS

There happens to be a whole another dimension to financialization than what has been considered thus far. This involves the foreign exchange markets, the scale and scope of which is simply mind-numbing.

For instance, between the 1970s and the 1980s, the ratio of foreign exchange market turnover to merchandise exports jumped from the teens to about 50. Since then that ratio has doubled again and stands at more than 100 today⁵.

Here are some interesting facts:

- At present, the daily foreign exchange trading happens to be close to \$6 trillion which is close to a third of the U.S. GDP.
- Barely 1 percent of foreign exchange trading is actually related to merchandise trade. The rest of it may be easily linked to the exotic financial innovations.

In recent years the financial markets have also opened up to remarkable strategies of gaming. Increasingly, this has taken the form of casino-type gambling, the associated risks of which will be examined in chapter 6.

For now, let's concentrate on the mechanics of the currency markets. What makes these markets extra special is their round-the-clock fast and furious trading. This involves:

- **Trading currencies** for each other which means buying under-valued currencies in the hope that they will appreciate and selling over-valued currencies for the opposite reason
- Trading financial assets that have a currency convertibility feature; that is, these assets may be converted into currency at a moment's notice.
- **Reserve assets** are also an important component of the currency markets. These include gold and special drawing rights of nations at the IMF. Reserve assets also include foreign exchange assets which are a mix of currency, deposits and securities and various other claims.

Here it is worthwhile to note that currency considerations involve much more than simply exchange rates which are merely the prices of currency in terms of one another. Generally speaking, when the price of the euro rises with respect to the U.S. dollar that means:

- The euro is getting stronger (appreciating) while the dollar is weaker (depreciating).
- Europeans will be able to buy more in global markets but sell less by way of exports
- A strong euro could easily fuel a Eurozone trade deficit

Since a strong currency enables a country to buy more imports while a cheap currency makes one's exports cheaper to international buyers, currency markets are intricately connected to merchandise trading and could easily impact the global economy without much warning.

This is where reserve assets come in. These are mostly used to address trade imbalances inasmuch as a trade deficit may be settled using reserve assets while a trade surplus may be used to build reserves for future use. Naturally, gold fits in rather well as an attractive means for settling a nation's debt.

Although the American dollar is no longer backed by gold, the value of the dollar and the price of gold are still indirectly related. This is because when trading nations lose faith in the American dollar for whatever reason, they turn to gold as a backup. Thus when the dollar weakens in value, gold typically rises in price.

Overall, currency reserves for countries serve pretty much the same role as credit cards or cash on hand for individuals. Consequently, countries use currency reserves and gold to:

- settle trading imbalances
- protect themselves against market-related adversities for no one knows where and how the next crisis will strike.
- use currency reserves to either strengthen or weaken a currency in global markets.

The reserves of foreign exchange and precious metals are typically controlled by a country's central bank which is in charge of addressing the international payment imbalances that may arise from time to time.

There are of course other ways to address a persistent trade imbalance. The most attractive one is by weakening one's currency, thereby making the exports cheaper in global markets and building a trade surplus.

Any country can accomplish this feat by buying some international reserve currency using one's own money. This creates an extra demand for the reserve currency while making one's own currency cheaper in global markets.

Brain power

By 2020, wind could provide one-tenth of our planet's electricity needs. Already today, SKF's innovative know-how is crucial to running a large proportion of the world's wind turbines.

Up to 25 % of the generating costs relate to maintenance. These can be reduced dramatically thanks to our systems for on-line condition monitoring and automatic lubrication. We help make it more economical to create cleaner, cheaper energy out of thin air.

By sharing our experience, expertise, and creativity, industries can boost performance beyond expectations. Therefore we need the best employees who can meet this challenge!

The Power of Knowledge Engineering

Plug into The Power of Knowledge Engineering. Visit us at www.skf.com/knowledge



Just as weakening a currency can create a trade surplus, however, allowing trade deficits to grow over time could also weaken a country's currency. Furthermore, if a country depends heavily on the import of essential resources such as oil, then domestic inflation becomes very likely.

All things considered, currency manipulation is an easy way to build competitive advantage in trade. China has lately gotten a bad rap for consistently keeping its currency weak so as to keep its products cheap and attractive in global trade. That dubious distinction has lately been extended to Denmark, Hong Kong, Malaysia, Singapore, Switzerland and Taiwan⁶.

As may be expected, currency manipulation is frowned upon in global trading circles. This is because:

- currency manipulation violates the established articles of agreement of the IMF.
- The WTO could advise the affected nations to impose tariffs on the imports from the currency manipulators.

Understandably, with all the complexities associated with currency values, the sheer anticipation of foreign exchange market interventions might lead countries to build up reserves as a defensive measure. However, this in turn could drive trade and exchange into unexpected directions, not to speak of distorting trade and capital flows, thereby feeding a speculative frenzy all around.

Sadly, a simple currency manipulation cannot render a nation totally immune from global economic crises. This has been demonstrated by many nations caught in the global economic slowdown of recent years.

2.8 BALANCE OF PAYMENTS

Let's now take up the important question of balance of payments (BOP) accounts which means keeping track of the flow of merchandise trade and financial capital for a country. The following are three essential components of BOP:

- Current account: keeps track of merchandise and services imports and exports
- Capital account: keeps track of the flow of financial capital in and out of a country
- **Reserve position**: keeps track of a country's holding of foreign currency reserves and other reserve assets

While a trade deficit has to be paid up sooner or later, a trade surplus could easily be invested in foreign assets or else simply used to build up reserves. When the current account produces a surplus, a country has the choice of either paying off its foreign debt or buying up foreign assets including its international reserves.

Over the last three decades the long-term debt positions of many developing economies have gone down. This reflects their improving trading positions. Most often, countries that are doing well in global markets would also attract investor capital from overseas which would strengthen their currencies and produce a surplus in the capital account.

Taking the current and capital account changes altogether, the reserve position may be fully understood. There can either be an overall build-up of reserves on a net drain. This suggests that the international reserve holdings of a country acts almost as a buffer or a safety valve.

Reserves function almost as a form of insurance against unforeseen contingencies, as we saw in the previous section. However, any increase in the reserve holdings by an emerging market economy may suggest that it has been getting increasingly cautious which may have unintended consequences. This happens to be especially true in the current era of progressive financial globalization.

However, so long as a nation is engaged in trade, balance of payments problems are unavoidable. In the worst case, balance of payments difficulties could lead to economic crises. For instance, a situation could arise where a country is unable to find sufficient financing on affordable terms to meet its international payment obligations. This could easily trigger a sense of panic among overseas lenders.

As it happens, in the face of growing uncertainty, foreign creditors may refuse to loan any more money or even to restructure existing loans. To make matters worse, foreign investors may even lose confidence in the country and pull their money out. This is often described as a "capital flight" which means:

- A massive drain of financial capital as investors take out money from a country in droves.
- A steady outflow of capital that can quickly deplete currency reserves.
- A steep currency depreciation that could lead to economic slowdown or collapse

Apart from disrupting many lives and livelihoods, the problem could easily spread to neighboring countries thereby triggering a contagion.

This is where the IMF is at its operational best in devising:

- corrective policies to steer a country out of danger
- providing loans as necessary to give the ravaged nation some breathing room
- install much-needed reform to create conditions for strong and sustainable growth and restore employment levels

However, before a member country gets a loan, the national authorities have to sit down with the IMF and agree on a regimen of reform policies. This often means drastic moves to balance the government's budget which may translate into severe austerity measures.

Down the road there inevitably arises the question of whether the IMF will get repaid after all its good deeds. That depends on how fast a country is able to resolve its balance of payments problems and is back on its feet.

There is always a danger that a country may not be able to pay off its external debt real fast without slipping into even more economic compression, the results of which could be totally disastrous.

Trust and responsibility

NNE and Pharmaplan have joined forces to create NNE Pharmaplan, the world's leading engineering and consultancy company focused entirely on the pharma and biotech industries.

Inés Aréizaga Esteva (Spain), 25 years old Education: Chemical Engineer - You have to be proactive and open-minded as a newcomer and make it clear to your colleagues what you are able to cope. The pharmaceutical field is new to me. But busy as they are, most of my colleagues find the time to teach me, and they also trust me. Even though it was a bit hard at first, I can feel over time that I am beginning to be taken seriously and that my contribution is appreciated.



 NNE Pharmaplan is the world's leading engineering and consultancy company focused entirely on the pharma and biotech industries. We employ more than 1500 people worldwide and offer global reach and local knowledge along with our all-encompassing list of services.

 nnepharmaplan.com

nne pharmaplan®

2.9 SOVEREIGN DEFAULTS

When foreign creditors demand immediate repayment of loans but a country's banking institutions have insufficient reserves and cannot be bolstered by the central bank then it could easily lead to a sovereign default situation.

On occasion, an inability to pay back one's creditors may be due to built-in weaknesses in the domestic financial system itself. One could cite a whole range of related problems:

- unprofitable institutions supported over time by the state
- large and persistent fiscal deficits
- high levels of external or public debt
- inappropriate pegging of exchange rates
- sudden surge of inflation in essentials such as food and fuel
- domestic unrest and civil strife
- armed conflicts or outright war
- natural disasters and calamities

Any combination of these problems could trigger serious trading imbalances and cause foreign exchange reserves to be drained very fast.

In the past, a failure to repay foreign debts has often led to military invasions. Luckily these days, a declaration of national insolvency rarely escalate into violent skirmishes. Instead governments turn to:

- drafting agreements with creditors that typically involve restructuring the debt and design repayment plans.
- designing agreements that could involve a paring down of the debt which often comes at the expense of the creditors.

Since 2000 there have been several sovereign defaults in the world but Argentina stands out, having faced two sizeable defaults in thirteen years (2001 and again in 2014). Back in 2001 a crazy scenario began to unfold that could be best put together as follows:

- the U.S. dollar began to get stronger
- Argentinian peso being pegged to the dollar began to get strong as well
- The strong peso led to falling commodity exports at a time when their prices were already falling.
- Earlier Brazil had devalued its currency (called "real")
- Foreign investment began to leave Argentina and fly into Brazil.

Since Argentina already was facing a growing fiscal deficit, the prospect of a capital drain drove up domestic interest rates and began to squeeze out domestic private investment. This led to companies being shut down, a soaring unemployment and a deep economic recession.

The tipping point for Argentina came when the IMF refused to lend it any more money. Open declaration of bankruptcy was the only way out.

By far the biggest sovereign default in history took place in Greece in March 2012. The situation was only slightly different from the Argentinian case. The symptoms were:

- Large government deficits and debt build-up
- widespread tax evasion in Greece
- massive spending cuts and tax hikes on the heels of the default
- growing incidence of street protests and riots

Luckily in the end, Greece seemed to be back on the path of recovery, thanks to a concerted effort on the part of the IMF, the European Commission and the European Central Bank. However, this meant painful austerity measures and a drastic restructuring of the country's debt.

Unfortunately, tough austerity measures meant to help the countries back on their feet invariably lead to higher unemployment, steep cuts in public services and benefits, not to speak of a compromised reputation that would make it harder to borrow money in future.

As should be clear by now, trade flows, capital flows, currency values and domestic policies are all interconnected thanks to what is popularly labeled as globalization. The slightest disturbance on any of these fronts could easily send reverberations all over. This means that all participants in global markets have to be extra-vigilant and careful with their domestic plans so as not to rattle global investor expectations or the faith and confidence of their trading partners.

2.10 GROWTH PROSPECTS

Globalization continues to get top billing as the best solution for the world's poverty. According to most of its advocates, the greatest reductions in poverty in the last two decades have occurred in countries that have gone the farthest to embrace openness and globalization.

As we have noted earlier, with more trade there is likely to be economic growth which in turn is expected to lead to poverty reduction and general betterment.

Perhaps the best illustration of this simple logic is the spread of modern medicine which is a great byproduct of globalization. It has been a big factor in helping to:

- extend average life expectancy
- reduce infant mortality
- bring about higher standards of health and sanitation
- install higher labor standards concerning work and wages
- enhance public awareness about acceptable living conditions
- bring uniformity in norms, standards, rules and practices within and across regions

It is therefore easy to see why economic isolation is unlikely to improve the lives and livelihoods of a nation's citizens. As a globally connected citizenry becomes more informed about global trends and the advantages and living standards elsewhere; they then begin to demand the same and this brings improvements all across the board.

In effect, free trade fosters the creation of a large and independently-minded middle class that can also support an institutional framework for further growth and prosperity. The idea is that human aspirations, once granted free expression, automatically create supporting institutions which in turn create additional aspirations for a better life.



Most prominently, norms and standards influence the quality of the products exchanged. Given that trade brings in healthy competition, it helps to weed out products of inferior quality as also to eliminate production methods that are hopelessly obsolete.

The ultimate goal is to build consumer confidence and there is nothing better than offering better quality at affordable prices. Not surprisingly, by means of globalization, developing countries gain access to the latest production technology which spares them from having to go through the expensive and time-consuming process of developing all of it themselves.

For the emerging market economies of the world, globalization offers another distinct advantage by way of opening fruitful channels for tapping into foreign capital for domestic investment purposes, be it in infrastructure investments, such as port facilities, power generation, internal transportation networks or new product lines and manufacturing facilities.

Consequently, opening up channels for foreign investment eases up the process of domestic development and in turn facilitate the entry of multinational businesses. The multinational corporations in turn tend to engage in massive capital ventures of their own which can give an additional boost to the local plans for economic growth.

2.11 FAIR TRADE

It is widely believed that by opening their markets to foreign producers, developing nations can leapfrog onto the path of economic growth and prosperity. This saves the trouble of having to develop the needed technology themselves from scratch for they can rely on a cheap transfer of technology from the advanced economies.

This not only means a ready transmission of newer production techniques across national borders but also growing opportunities for employee training and education that are expected to enhance a developing nation's stock of human capital.

As may be expected, technological change plays a very dominant role in globalization compared to trade. However, this invariably introduces a **skills bias** in the economic growth formula since technological progress makes ever-newer demands on worker skills. What is likely to emerge at the end of the line is also a **skills divide** along with greater economic inequality in the economy.

- Note: Skill-biased technological change means that there is a greater demand for worker skills to support the use of the emergent technology.
- Note: Skills divide means the gap in income and prospects between workers who are replaced by technology and the skilled worker those who work with technology.

Even the most advanced nations of the world are not immune to an emerging skills divide in the information age; the U.S. is a prime example as a widening wage gap and an increased polarization of income have begun to define a new normal.

Not unexpectedly, globalization is being blamed these days for aggravating the gap between the rich and the poor across nations. Critics contend that the marginalization of the poor is revved up by global competition which usually brings about significant amounts of economic disruption and displacement in the traditional sectors of labor-intensive or communitybased production.

To make matters worse, the advanced economies are not always helpful in forwarding the cause of development. Despite substantial progress in the post-WWII era:

- Advanced economies continue to put up trade barriers against products (e.g. in clothing, textiles and agricultural goods) that are all labor-intensive.
- Tariff barriers that exist between the developed and developing countries are much higher than that barriers that exist among the developed countries themselves.

Note that these are precisely the types of barriers that destroy the comparative advantage of the developing nations. Consequently, there are justifiable complaints from the developing nations about trade fairness.

The WTO is expressly designed to address these concerns. Its main task is to bring unfair trading practices to light which often means ruling against domestic regulations that impact on trade. However, this does not mean that sovereign nations immediately have to comply.

Often enough, the advanced nations choose to ignore the WTO ruling altogether. For instance, the EU has continued in its ban on imported beef treated with growth hormones despite assurances from scientists that the treatment poses no hazard to public health.

In the event of a nation going against a WTO ruling, her trading partners can always retaliate with trade restrictions of their own which do not help matters too much. Engaging in a tit-for-tat game of trade barriers is ultimately a losing game for all parties concerned.

However, there are other ways to bring a recalcitrant trading partner back in line. Often enough, the symbolic move of revoking the "most favored nation" status often bestowed on nations can do the trick.

• Note: Most Favored Nation (MFN) status is when a country enjoys the benefit of lowered tariffs and elimination of trade barriers with a select group of nations. All members of the WTO fall into this category.

MFN is critically important for developing countries since by lowering the cost of their exports they are given a competitive advantage. This can help with economic growth and put them on a fast track to development.

2.12 ECONOMIC FREEDOM

Those who see globalization as by far the best means for bringing about economic betterment for vast swathes of humanity, the blessings of globalization are not too difficult to sum up:

- faster economic growth and improvements in per capita income
- fast reductions in poverty and improvement in living standards
- greater receptivity in the broader populace toward democracy

Sharp Minds - Bright Ideas!

Employees at FOSS Analytical A/S are living proof of the company value - First - using new inventions to make dedicated solutions for our customers. With sharp minds and cross functional teamwork, we constantly strive to develop new unique products - Would you like to join our team?

FOSS works diligently with innovation and development as basis for its growth. It is reflected in the fact that more than 200 of the 1200 employees in FOSS work with Research & Development in Scandinavia and USA. Engineers at FOSS work in production, development and marketing, within a wide range of different fields, i.e. Chemistry, Electronics, Mechanics, Software, Optics, Microbiology, Chemometrics.

We offer

A challenging job in an international and innovative company that is leading in its field. You will get the opportunity to work with the most advanced technology together with highly skilled colleagues.

Read more about FOSS at www.foss.dk - or go directly to our student site www.foss.dk/sharpminds where you can learn more about your possibilities of working together with us on projects, your thesis etc.

Dedicated Analytical Solutions FOSS Slangerupgade 69 3400 Hillerød Tel. +45 70103370

www.foss.dk

FOSS

The Family owned FOSS group is the world leader as supplier of dedicated, high-tech analytical solutions which measure and control the quality and production of agricultural, food, pharmaceutical and chemical products. Main activities are initiated from Denmark, Sweden and USA with headquarters domiciled in Hillerød, DK. The products are marketed globally by 23 sales companies and an extensive net of distributors. In line with the corevalue to be 'First', the company intends to expand its market position.

In addition, some even look to globalization as an effective way to:

- transfer wealth from producer-control to consumer-control
- promote justice, fairness and equity on a global scale
- create a virtuous circle of further gains in productivity and efficiency.

Consequently, globalization is often seen as the perfect means for fostering economic freedom which is bound to translate into political freedom sooner or later. Thus the establishment of free markets is widely seen as being conducive to democracy. After all, both market systems and democracy are voting systems in their own way.

• Note: A market system operates under the rule of one dollar, one vote. A democracy goes by the rule of one person, one vote. So both are in essence voting systems.

There is always hope that greater economic freedom will lead to greater political freedom and improve peace and harmony all over the globe. However, this does not always hold up in reality since there are many powerbrokers in the world who possess enough political and economic clout to skew the rules of the market in their favor.

Recently, French economist Thomas Piketty became an overnight sensation by bringing to light the problem of runaway inequality in income and wealth in the advanced nations of the world. He puts forward the question of whether rising inequality might not over time compromise the effective functioning of democracy, even in the developed economies of the world⁷.

The tremendously powerful information technology of today has made it very hard to keep facts and opinions from leaking out. Consider "cloud" computing for instance, which may be imagined as a collection of huge storage spaces in the cyber universe commanded by media giants who offer the storage service to their corporate clients for a price. This takes globalization to a wholly different realm altogether.

Recently, there was a huge uproar about whether "cloud" computing could even be trusted to keep private secrets since very personal pictures of celebrities kept leaking out. Alongside there is the added concern about how social media has been made into an effective recruitment tool for staging terror and mayhem across the world.

Understandably, this often drives some nations to desperation, as they block the internet altogether but this may not be in the best interest of their citizenry. Nevertheless, it is hard to deny that there is a more reasonable fear that amassing information without proper direction could easily undermine established regimes and create instability. To be sure, an informed citizenry may turn out to be just as unmanageable as an uninformed one and there is no easy way to settle that debate.

Admittedly, information technologies are increasingly defining the forward march of globalization. So long as it means creating a relatively open and safe forum for democratic deliberations, it is a good thing. However, whether the ongoing global exchanges lead to lasting peace around the world or a continuous stream of sporadic crises and conflict it remains to be seen.

Questions

- 1. Why is a free flow of money across nations such an important facet of globalization? Why do financial capital flows tend to be bigger in size than the volume of global trade?
- 2. Provide a brief account of the historical origins of GATT. Explain how it paved the road to the establishment of the WTO.
- 3. How many prominent currencies are there in terms of which global trade is conducted? Which of these is the most important?
- 4. Can maintaining a stable currency in global exchange conflict with maintaining a stable market economy? How did the U.S. handle such a problem in the 1970s?
- 5. What are the three important pieces in balance of payments accounts? How is the health of a market economy tied to balance of payments? Explain.
- 6. What is financial globalization? Explain how it may be responsible for creating market volatility around the globe.
- 7. What is sovereign default? What are the popular measures for addressing such a default?
- 8. What is a skills divide? Can a skill-biased technological change lead to a skills divide? What are the long-term implications?
- 9. Explain why economic and political freedoms are thought to be closely related. Could globalization serve as a viable connector between the two? Why or why not?
- 10. There are those who think that globalization is not necessarily a bad idea so long as it is managed properly. What are some of the key factors that should be taken into consideration to manage globalization effectively?

3 GLOBALIZATION: RELEVANT THEORIES

3.1 INTRODUCTION

There is no denying that globalization is an inherently multidisciplinary subject. It draws upon the disciplines of international studies, international political economy and sociology to a very large extent. This makes it quite difficult to fit it all into a single theoretical framework.

Where matters stand, it is just as easy to draw upon political science and international affairs for understanding the phenomenon of globalization as it is to rely on anthropology, history, cultural studies, sociology and geography to explain its various aspects.



Thus it would be simplistic to consider globalization as purely an economic phenomenon when it comes to examining it in terms of origin, scope and implications. Nevertheless, there appears to be general agreement among most experts that globalization is at heart a long-term process that involves:

- economic expansion as represented by expanding markets in resources and finance
- economic integration of markets in both resources and finance across the globe

Within the discipline of economics, the subfield of international economics might be the logical place to begin any exploration into globalization. But curiously enough, there is rarely any mention of globalization in that field¹. Perhaps this is because the idea does not fit neatly into the conventional analytical framework of economic science.

As it is, the multidimensionality of globalization defies exhaustive theorizing. In addition, it remains a formidable challenge to come to terms with two rival and very competing questions that underlie the phenomenon:

- explaining globalization in and of itself as an economic process
- explaining larger economic or social phenomena using globalization as a theoretical tool or instrument.

Since explaining globalization as a stand-alone entity is clearly different from using it as a theoretical tool with which to explain broader economic and social phenomena, the exploration itself raises deeper philosophical questions.

Be that as it may, if we choose to skirt around these esoteric questions, then the best way to approach globalization might be to rely on theories that overlap both international economics and international political economy. Even then we should try our best to avoid the view that globalization does not involve much more than thinking about:

- resource flows across the globe
- international trade in terms of volume and pattern
- foreign exchange markets dealing with the value and flow of foreign exchange

However, given that our interest here is primarily in the economics of globalization, we shall, in the interest of brevity, rely on:

- the economic theories that have a direct bearing on globalization
- the theories of international political economy that also have a lot to offer

In what follows, we shall first look at how the early sociological forays into emerging global systems in the post-WWII years eventually broadened into wider explorations into the topic of globalization.

Subsequently, we shall look at international economics and international political economy to examine how the interrelationship between economics and politics has had a direct bearing on the way we view globalization. This chapter concludes with a quick look at the radical viewpoints that have begun to gather considerable momentum of late and the light they throw on the inherent limitations of globalization economics.

3.2 WORLD-SYSTEMS PARADIGM

From the 1970s on there has been a growing interest among researchers for studying the new systems of production, consumption, finance and capitalization that were emerging all over the world. The visibly multinational and transnational dimensions of the phenomenon began to give rise to new economic, political and cultural realities, the impact of which began to be hotly debated in scholarly circles.

Curiously enough, most globalization theories have developed against the backdrop of growing criticism concerning

- inequalities developing worldwide
- newer modes of domination and exploitation promoted in the name of enterprise
- marginalization and displacement of vast swathes of the global population
- growing ecological fragility and risk of environmental disasters

To be sure, the ongoing debate concerning the merits of globalization is not likely to be settled anytime soon. This is not least because the experts are still not clear about whether globalization refers to

- a single process within a continuum of economic valuation
- a specific condition that may not be more than a passing phase.

Although there is no single answer to any of the questions above very few would disagree that globalization is a hugely transformative process with its own distinctive momentum that leaves markers that crisscross several disciplines with impunity.

By far the most famous harbinger of globalization theories is the world-systems paradigm that was framed within a broader critique of capitalism as a global system. Wallerstein (1998) was the originator of the world-systems perspective as he looked to the dynamics of historical processes spanning five centuries.

What Wallerstein offered was a cohesive framework of macrosocial inquiry that was sharply critical of the true import of globalization. The world-systems paradigm views the world to be organized as a tiered hierarchy involving three key pieces:

- the core made up of the developed centers of economic power
- the **periphery** forcibly subjected to the core through colonialism and other not so sinister means
- the **semi-periphery** comprised of states and regions in transit between the core and the periphery, going in one direction or the other

While the core continues to maintain its economic power by means of trade advantages and cultivated dependencies, the mobility between core and periphery could be quite heartening in terms of long-term economic success. But it is not a dynamic that could be relied upon as an automatic process nor to assure long-term health of a social order.



Low-speed Engines Medium-speed Engines Turbochargers Propellers Propulsion Packages PrimeServ

The design of eco-friendly marine power and propulsion solutions is crucial for MAN Diesel & Turbo. Power competencies are offered with the world's largest engine programme – having outputs spanning from 450 to 87,220 kW per engine. Get up front! Find out more at www.mandieselturbo.com

Engineering the Future – since 1758.





To date the world-systems camp has not been known to consider globalization as a fixed concept nor does it subscribe wholeheartedly to a singular view of globalization. Not surprisingly, as a theory of globalization the world-systems perspective comes up short; it may be best described as an alternative take on the cherished idea of a global society popular with free market fundamentalists.

Before we leave the topic however, it is worthy of note that the world-systems literature promotes the view that the start of the new millennium symbolizes a great point of transition which in another quarter century is likely to give rise to a global capitalist order the likes of which has never been seen before.

This has led to the view that transnationalism might serve as a great alternative conceptual framework in terms of which to understand the emerging global order. The result has been a slew of descriptive studies of broader social processes triggered by globalization.

It is in this vein that the technologistic basis of globalization has been promoted which in and of itself throws considerable light on a significant global process. The dynamics is explained quite well through the concept of a "network society" as developed by Castells (1998).

The idea of the networked enterprise that reflects a network society, is the vanguard of an emerging form of industrial organization that involves

- global financial markets that are the key to promoting market capitalization at lightning speed
- ongoing revolutions in information technology that continue to collapse time and space at an alarming rate
- a timeless and virtual approach to production and consumption that defies the conventional bounds of cultures and institutions.

To be sure, what was enthusiastically billed early on as a globalized offering of an affluent service economy worldwide did not pan out quite as expected. Over the past decade the early optimism surrounding globalization appears to have dimmed quite a bit. Instead, what has begun to take its place is a new realization about growing economic polarization between the high-skilled professionals and low-skilled service jobs along with a growing concern about the middle classes in affluent parts of the world being driven to near extinction.

3.3 GLOBALIZATION ECONOMICS

These days even economists have begun to view globalization as a variegated process as described by Rodrik (2011). He finds it to be a process that is both uneven and less inclusive than popularly claimed. Undeniably, while market liberalism may still be viewed as a dominant principle underlying globalization, there are several related economic processes that do not always work in harmony.

In many ways, globalization is poised between two extremes:

- the idea of **great convergence** that claims that through globalization all nations are bound to share prosperity over time
- the theory of **great divergence** according to which globalization makes nations more polarized over time

Both of these views are dealt with at length in the annals of international political economy². According to the convergence thesis, there is a single global economy toward which all market economies tend to drift over time.

The extensive literature in international political economy has a lot to say on the subject of globalization as it is broadly seen as a phenomenon that has been reshaping the capitalist world economy since the end of World War II.

As is to be expected, this is believed to have had far-reaching consequences regarding:

- Changing the nature and meaning of work. Most notably this has been seen in the directional shift from manufacturing to service.
- Changing patterns of consumption around the globe, largely as consumers in the global south emulate their counterparts in the global North
- Changing patterns in the organization and conduct of the social and cultural lives of vast swathes of population around the globe

Given the range of competing perspectives on globalization it is no longer possible to view it as a distinctive phase of capitalism nor necessarily one that is unique or novel.

The only things we may be sure of is that globalization appears to be synonymous with:

- the spread of capitalism as an economic system of allocation, production and distribution
- an expanding economic system that functions best when contained within a broader vision of democracy.

Accordingly, there cannot be any disagreement that the first decade of the 21st century has seen the neoliberal vision of capitalism to emerge as the dominant economic system around the globe. To recount its essential features, **neoliberalism** represents a doctrinaire belief system that prefers:

- self-regulating markets for both resources and products
- the cultivation of democratic values through ever-widening markets
- improving the human condition through market efficiency and expanding markets

To the true believer in neoliberalism, what passes for globalization today is grounded in the philosophical ideas that may be found in the writings of John Locke and Adam Smith.

- John Locke was a leading exponent of the central role of private property rights in a market economy
- Adam Smith supported free markets as the best way to ensure enduring prosperity and wealth creation.



Not unexpectedly, within the contentious field of economics, the practitioners are divided into two distinct camps.

- An economic mainstream that considers globalization to be largely a positive phenomenon (e.g. Bhagwati and Wolf)
- The critics of the mainstream who tend to adopt a reformist spirit (e.g. Krugman, Stiglitz and Rodrik) and approach globalization as a mixed bag of both good and bad.

For a large number of prominent economists, including Joesph Stiglitz and Dani Rodrik, the discipline of economics has not yet wholeheartedly engaged in studying globalization as a distinctive field of study.

Nevertheless, it is hard to deny that there is a close relationship between free market liberalism and globalization which became quite prominent in the 1990s. This was helped by several epochal events that defined the onset of a new economy; these included:

- great advancement in computers, the internet and telecommunications
- large-scale integration of resource and commodity markets across the globe
- the end of the Cold War and the disintegration of the Soviet Union

While the information revolution brought in faster ways of communication, the fall of state socialism also meant a breakdown in state control over production and distribution mechanisms which had until then strapped the advanced capitalist economies of the world. The freeing up vast swathes of the global population from the stifling weight of communism also meant the opening up of largely unregulated markets all around the globe.

In many ways the tremendous potential for wealth creation unleashed as globalization went into overdrive in the new century, the role of the state was sharply reduced, from economic management to holding the line on taxes, regulation and inflation. This was meant to ensure that markets could operate at maximum efficiency while individuals enjoyed abundant and free choice.

3.4 EARLY ENTHUSIASM

For Thomas Friedman, a noted America journalist, columnist and Pulitzer Prize winning author, the latest round of globalization needed to be embraced without question as the way of the future. *Lexus and the Olive Tree*, Friedman's (2000) treatise on globalization popularized wondrous accounts of globalization. The idea was to promote the phenomenon as a progressive force that could not but work to promote the collective good.

Friedman famously credited globalization with several stupendous developments:

- compression of space and time
- speeding up of communication
- speedy movement of resources and capital
- cognate developments in business practice (e.g. lean and flexible supply chains)
- growth in networking to construct and maintain lifestyles

His enthusiastic account of the promise of globalization found distinct echoes in the world of finance as expressed by Martin Wolf (2005). Drawing upon the classical insights of Smith and Ricardo, Wolf engaged in a grand effort to combine them seamlessly to the free market views of Hayek and came up with a resounding defense of globalization as a liberal market phenomenon that deserved to be seen as:

- a positive influence in promoting economic health and prosperity
- a much needed boost to democracy and freedom the world over

These optimistic accounts dismissed most opposition to globalization to be thoroughly unwarranted and at its basest, seriously misguided. Over the next decade however, that unbounded optimism faded quite a bit since the neoliberal brand of globalization created a lot of new challenges as we shall see later.

3.5 THREE WAVES

Since the early 1980s when the globalization idea took off, economic theorizing on the subject began to respond to its twists and turns with newer adaptations. Looking back, the economic deliberations on the subject may be seen in terms of three noticeable waves:

- hyperglobalization thinking
- skepticism about globalization
- reformist thinking

As may be expected, for the true believers of free market liberalism, globalized markets are the perfect expression of individual rational behavior and strategic agency. This reflected in large measure a reaction to the stagflationary 1970s when the Keynesian ideas of statemanaged capitalism were famously discredited. What followed was a push for a complete overhaul in economic thinking; this meant placing economic reasoning upon largely neoliberal foundations. Accordingly, primacy was given to:

- individual rationality and strategic agency
- rational individual expectations and constant strategizing
- efficient markets and free market principles

In this revamped approach to globalization, individual rationality could be trusted to provide all the necessary guidance to global market forces while also ensuring the stability of the global economic order. In a way, global markets seemed to provide the perfect testing ground for such an unadulterated doctrine based on free market principles. Unfortunately, the results were not quite as perfect as was expected.

Technical training on WHAT you need, WHEN you need it

At IDC Technologies we can tailor our technical and engineering training workshops to suit your needs. We have extensive experience in training technical and engineering staff and have trained people in organisations such as General Motors, Shell, Siemens, BHP and Honeywell to name a few.

Our onsite training is cost effective, convenient and completely customisable to the technical and engineering areas you want covered. Our workshops are all comprehensive hands-on learning experiences with ample time given to practical sessions and demonstrations. We communicate well to ensure that workshop content and timing match the knowledge, skills, and abilities of the participants.

We run onsite training all year round and hold the workshops on your premises or a venue of your choice for your convenience.

For a no obligation proposal, contact us today at training@idc-online.com or visit our website for more information: www.idc-online.com/onsite/

> Phone: **+61 8 9321 1702** Email: **training@idc-online.com** Website: **www.idc-online.com**

OIL & GAS ENGINEERING

ELECTRONICS

AUTOMATION & PROCESS CONTROL

MECHANICAL ENGINEERING

INDUSTRIAL DATA COMMS

ELECTRICAL POWER



This led to a second wave of globalization theories offered by the skeptics who considered globalization to be neither as a novel phenomenon nor truly global in scope³. They instead pointed to the patterns of trade and exchange stretching across the nations of the globe that are found wanting when it comes to the exaggerated claims of:

- all-inclusiveness in terms of shared prosperity
- equitable spread of economic benefits among all market participants
- balanced impact of real and money flows on development patterns and prospects of nations

Evidently, there is a sharp distinction to be made between internationalization (e.g. global expansion of markets) and globalization (e.g. fully integrated markets) and that question is much more than merely a matter of semantics.

Prominent exponents of the second wave have since gone through great lengths to point out how the globalization process is quite uneven. Often enough globalization does not come across as being very balanced in its impact. This became particularly noticeable when it comes to:

- the political fate of individual states
- the long-term economic health of nations
- the long-term prospect of national cultures

What followed were further expressions of skepticism concerning globalization and led to the third wave of economic theorizing that took on a distinctively reformist flavor⁴. Generally speaking, this camp is not opposed to:

- the ideas of market efficiency
- free market principles in achieving global market integration.
- finding market solutions to the stresses and strains of globalization

However, the idea that the problems of rising deficits of states, the challenges of uneven development or even rising inequalities could all be relegated to the care of free markets does not convince the reformist spirit. They are quick to point out that conventional prescriptions pose a few dangers for the transitional economies.

In particular, the reformist group points out that a lot of transitional economies have neither the capacity nor resources to withstand the oftentimes harsh recommendations of the IMF and the World Bank which routinely call for balanced budgets, zero inflation and deregulated financial markets⁵. For the well-heeled reformists, the following are the central points of contention:

- the blanket removal of tariff barriers from agricultural trade
- strict rules for debt restructuring or forgiveness
- firm rules about state budgetary responsibility
- upholding intellectual property rights in developing countries
- unyielding carbon emission rules and trading rights
- strict codes of corporate governance
- firm global banking system rules

Inasmuch as conforming to the rule book means strict adherence to the rational vision of the economic orthodoxy, it calls for an uncompromising adherence to market competition as a blanket prescription for all economic contingencies. However, that position possesses a few innate shortcomings all its own.

For instance, joining the global market place does not always mean that everyone ends up playing by the same rules, despite the ongoing campaign of the WTO to create a level playing field. Besides, when a nation's development prospects depend on commodity and natural resource exports then the odds may simply be too high to overcome.

Not surprisingly, for those who are not completely taken in by the specialized jargon of mainline economic thinking, the idea of immutable economic laws does not hold much meaning in the context of globalization nor is it valid to maintain that economic formulas could somehow be executed with mathematical precision and scientific exactitude.

Nobel prize-winning economist, Joseph Stiglitz (2003), points out that:

- the neoliberal formula is simply too blunt an instrument to address the stresses arising from globalization.
- different countries have different traditions, social institutions and different histories so that a single spate of policy prescriptions may not suit everyone.

3.6 INTERNATIONAL ECONOMICS

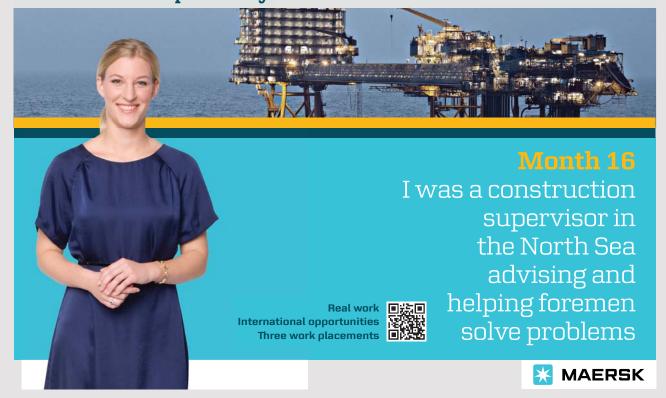
Broadly speaking, globalization finds a natural home in international economics which as a discipline is as much about trade as the study of money flows. Unfortunately, both of these areas are riddled with the interplay of competing interests. As it happens, trade and monetary issues cannot be neatly separated since they continue to feed off each other. Consequently, the theoretical models on offer are often inadequate to address the challenges posed by real world economic issues.

While international economics covers a whole host of subjects, from the costs and benefits of trade, and balance of payments adjustments to exchange rate determination and international capital markets, the key areas that directly relate to globalization are:

- international trade theory
- international factor movements
- international trade policy

I joined MITAS because I wanted **real responsibility**

The Graduate Programme for Engineers and Geoscientists www.discovermitas.com



3.6.1 TRADE THEORY

In international trade theory, the contributions of David Ricardo, eminent economist of the nineteenth century, have not lost much of their relevance. Ricardo offered the valuable insight that trade occurs due to innate international differences in labor productivity. In the last century this view has been extended to include:

- the varied endowments of natural resources and capital across nations
- the relative usage of various resources in the production of competing products

In the simplest Ricardian model, trade may be thought of as an indirect method of production. A country's production pattern is based on comparative rather than absolute advantage, that is, the comparative efficiency in producing a good at home versus importing it from abroad.

Of course a primary issue here is the matter of comparative resource endowments. According to the **Hecksher-Ohlin trade theory**, countries tend to

- export goods the production of which requires an intensive use of the factors that are abundant.
- Import goods the production of which cannot be supported by the domestic factor endowment

The important consideration here of course are the relative prices of the goods produced versus those imported which is likely to have a very strong effect on the domestic income distribution.

This idea often elicits unqualified support from trade enthusiasts who consider trade to be beneficial for a country's economic health. Accordingly, trade is seen to be beneficial even when:

- a country has lower productivity in all industries compared to its trading partners
- foreign industries enjoy low wages which helps them compete globally
- a country's exports are more labor-intensive than its exports

The trouble with a blanket rationalization of trade is that we do not have exhaustive data on productivity in all areas for all countries that are actively engaged in trade. Consequently, we can never be absolutely sure whether trade leads to specialization and comparative advantage or it is the other way around.

For instance, an absolute advantage in producing automobiles explains why Japan is a major exporter of automobiles; in contrast, higher productivity in clothing does not prevent the US from importing the same from newly industrializing countries like Mexico and China.

As it happens, Ricardo himself added a qualifier to the nifty concept of comparative advantage⁶. He did not think that the idea fared well when financial capital itself has the freedom to cross national borders, a caveat that the economic orthodoxy has continued to ignore to this day.

More critically, discussions on the efficacy of trade have lately gone beyond the simplistic terms of comparative advantage to include the patterns of international capital flows along with the possibility of totally random factors influencing trade that defy economic logic.

As a result, international economics finds itself pulled across a myriad of competing topics:

- the political economy of trade policy
- policies of strategic trade
- mechanics of exchange rate determination
- macroeconomic policy coordination across nations.

All things considered, we can see that the specialized theories are no longer satisfactory when it comes to dealing with the multidimensional phenomenon known as globalization.

3.6.2 FACTOR FLOWS

According to conventional economic theory, free factor movements bring about factor price equalization across countries but there are always mitigating factors. This is because real wages and interest rates do not always equalize across national borders even in the presence of free trade.

Consider for instance the fate of labor. Trade has long been believed to produce winners as well as losers, especially when it comes to income distribution. Although we may assume that winners can in principle compensate the losers, as is the case with neoliberals, but in practice it may not be so easy to find a satisfactory resolution.

To complicate matters even further, the overarching question of income distribution that arises from trade cannot be easily tamed through conventional cost-benefit analysis nor is it tractable using the rigorous analytical frameworks favored by most economists. Furthermore, most economists do not even consider the issue of income distribution to be so very special as to warrant limiting trade⁷.

These days, the most important features of factor movements most certainly are:

- labor migration across national borders
- financial capital transfers through international borrowing and lending.

Although both of these movements may be thought of as analogous to the trade in goods and services, there are clearly a few additional wrinkles to be ironed out.

While between the late nineteenth century and early twentieth, real wages were indeed on a convergent path between destination and origin countries in the western world, the same pattern does not seem to hold in the latest phase of globalization. Thanks to advanced technology, it is jobs and not labor that have had an easier time moving across national borders these days which means that the cherished idea of convergence may prove to be elusive in the long run.



As may be expected, there are clearly political considerations associated with factor movements that complicate matters quite a bit. Immigration is a hot-button issue in the developed nations of the world today and this mostly concerns whether a free inflow of foreign nationals is likely to be:

- a drain on the public purse due to an increased demand on public services (e.g. education, healthcare, highways and domestic security)
- increase in tax revenues for the government due to additions to the labor force and added productivity

For the most part, the effect of immigration on a government's budget remains an ambiguous issue⁸. This is not least because the skills sets that are brought into a country have a lot to do with the results.

It is said that the 2015 surge of displaced Syrians is most likely to help improve the economic picture of Germany by reversing the falling population growth rates and adding productive power. However, the anticipated strain of social welfare programs on the public purse continues to be viewed with alarm.

The question of benefits from trade becomes even more complex when we consider the international movements of capital. This is in no way similar to the movement of labor since the capital that moves is mostly in the form of financial asset transactions. This happens as:

- national banks make loans to other countries
- citizens buy stocks in foreign firms or invest through subsidiaries of foreign firms

What makes financial trade especially challenging is the fact that it invariably involves time inasmuch as the purchasing power that is lent today in the form of loans is in exchange for a promise of greater purchasing power in the future.

The type of exchange that occurs over a time period is called **intertemporal trade** in economic jargon; this is generally explained in terms of how:

- some countries favor enlarged future consumption which generates loanable funds for investment purposes
- some countries favor present consumption over future which calls for a demand for loans

The tradeoff between present and future consumption is known as the **real interest rate** and a differential in the real interest rate across nations tends to determine the direction of capital flows.

If we look at the international capital flow patterns in the 1970s

- oil exporters like Saudi Arabia generated expendable capital to invest overseas
- Saudi funds were in turn channeled to fast developing countries such as Brazil and South Korea that generated highly productive investment opportunities.

As we shall see in chapter six, direct foreign investment is an important part of international capital movements and the most visible expression of it is through multinational corporations (MNC). This involves not only a transfer of resources but also direct acquisition and control, features that are not typical of international lending and borrowing.

Additional complications arise when we bring in exchange rate considerations. Whenever one nation's currency plunges compared to another, the former enjoys a clear trading advantage. Thus a weakened currency in global exchange means:

- Cheaper export goods giving a nation a trade advantage
- Higher prices for imports and a risk of inflation

Often enough, drastic currency devaluations (as in the case of China in August 2015) produce such advantages but much to the consternation of one's trading partners. While exchange rate determination has only recently become an important consideration in international trade (ever since the U.S. abandoned the gold standard in the early 1970s), it is now a central question in international economics.

There are two critical issues here that are important to note. Both continue to be hotly debated:

- The merits of floating versus fixed exchange rates
- The national currencies to be counted as reserve currencies

Understandably, the earlier trade theories need to be thoroughly overhauled to address the modern economic arrangements. In addition, the structural changes in participating economies that have been necessary to create integrated markets for financial capital need to be reviewed with some urgency.

As may be expected, the global capitalist dynamic is driven in large part by financial capital that flows around the world in the form of credit, loans and grants. There are great risks associated with the global flow of capital, a matter that we take up in chapter seven.

Suffice it to say here that the way credit is doled out cannot be treated separately from the way periodic financial crises have rattled the global markets over the last three decades. A lot of it has to do with the nature of the capital markets themselves; as money is loaned out against promises to pay in the future, it presents a delicate balance that could easily be unsettled by unexpected changes in:

- the exchange rate between national currencies
- the comparative interest rates across nations
- the trading relations between nations
- national policy direction and political sentiments
- regulatory environment across nations

As we can see there are many unknowns to deal with when it comes to international capital flows. The slightest sign of turbulence in some remote corner of the globe could easily turn out to be a tsunami that threatens to unsettle economies and unseat entire governments. That in totality hints at the enormous powers of globalization as a formidable economic force.



3.6.3 TRADE POLICY

For the most part the policies that governments adopt toward international trade involve

- taxes or tariffs
- subsidies on certain transactions
- legal limits on the value or volume of trade

Tariffs generally mean a tax levied on an imported good. It may take the form of a fixed amount charged for each unit of a product imported. Alternatively, ad valorem tariffs are taxes levied as a fraction of the value of an imported good. Either approach succeeds in raising the price of the product in question, thereby limiting its attractiveness in the export market.

Tariffs are the oldest form of trade policy and until the introduction of the income tax, most governments relied on tariffs to raise revenues. Generally speaking, tariffs tend to:

- raise revenues for the government
- protect domestic markets of select goods from cheaper foreign imports.

In the early nineteenth century the UK used tariffs to protect its agriculture from import competition. The same tact was used by the US later on to protect its manufacturing goods sector from being taken over by imports.

Subsidies are the exact opposite of taxes in the sense that they are designed to encourage the production of a particular good or service. These days farm subsidies continue to be a sensitive topic of contention in the global trading arena. Developing countries accuse the developed nations of granting farm subsidies which they think give an unfair advantage to the multinational agribusinesses at the expense of the more traditional farming interests in the rest of the world.

However, tariffs are not the only form of trade restriction. Countries could use nontariff barriers such as

- import quotas
- export-credit subsidies to the buyer of a product
- national procurement: directing domestic firms to buy local
- informal barriers through negative advertising of imports
- export restraints (imposed by the exporting country at the insistence of the importing country; e.g. U.S. asking Japan to limit its exports of cars to the American market in 1981)

Most of these restrictions are designed to achieve the same goals. Although any kind of trade restriction must have costs and benefits. While domestic industries could be protected through tariffs it would also introduce:

- price gains that favor producers at the expense of consumers
- deterioration in the terms of trade over the long term

Then there are broader issues such as the impact of imports on domestic jobs and income distribution. These are both sensitive issues that defy easy resolution.

3.7 POLICY COORDINATION

To be sure, there has been a long-running debate in international economics about free trade versus protectionism which is not likely to be resolved any time soon. It has been a matter of key concern for economists since the sixteenth century when nation-states first made their appearance.

The two popular arguments in favor of free trade are that:

- the efficiency gains from free trade are significant
- there are significant welfare gains from free trade

The pressing issue has always been whether to protect domestic industries from foreign onslaught through the use of taxes, subsidies and quotas. Much of this is still central to our discussions of globalization, as we see later in our discussion of the WTO. While the champions of globalization may look at free trade as a worthy cause, it is clearly plagued by opposing forces:

- growing national prosperity through free trade
- declining domestic wages and disappearing jobs through foreign competition

While the convergence of global wages remains almost an article of faith with proponents of globalization, therefore, critics argue that this could easily amount to a "race to the bottom" (Korten 2015).

Evidently, the impact of international trade on a nation's income distribution is too significant a matter to ignore. Clearly the answer depends on whether the factor of production serves a general-purpose or is sector-specific:

- general-purpose factors can move across sectors with relative ease
- **sector-specific** factors only benefit or lose depending on how a particular sector fares in the face of trade

To add to the complications, national governments cannot always be relied upon to follow the recommendations of economists since there are always competing groups of vested interests within countries in addition to diverse considerations involving history, culture, tradition and social institutions.

The question of distribution aside, there is the pressing question of trade surplus and deficit which comes under the heading of balance of payments.

• Note: Balance of Payments refers to the record of a nation's transactions with the rest of the world; it involves not only the international movements of goods and services but of financial capital and foreign exchange



While it is one thing to advocate free trade, when the terms of trade turns against a nation and that also for an extended period of time, then there arises a lot of objections from all quarters. The trouble is that not every nation can enjoy a hefty trade surplus year in and year out without one or more of its trading partners complaining down the road. This is just as true of the powerful United States as it is for Brazil, an emerging nation by global economic standards.

This brings us to the matter of international policy coordination which undoubtedly is a very tricky area of international economics. The biggest challenge on the global front is how to coordinate

- international trade agreements so as to create a level playing field
- international monetary environments so as to minimize price uncertainty

One of the main purposes of policy coordination is to ensure that commodity and capital flows are not interrupted very severely at any time. This is where the World Bank, the IMF and the WTO assume a very critical role. These institutions are meant to oversee and harmonize competing global interests while maintaining a sense of balance.

As we can well imagine, there are broader ramifications of economic policies that may not be easily accounted for by narrowing the scope of analysis to the matters of quantitative mechanics and accountability, questions with which economists are largely preoccupied.

3.8 RADICAL PERSPECTIVE

At the far end of the ideological spectrum there are the Marxist critics who view globalization as no more than an extension of the exploitation formula that underlies the logic of capitalism. They contend that globalization is part of a production scheme that is programmed to exclude a sense of reasonable balance and equity.

Radicals find it rather exceptionable that the advocates of globalization should continue to

- emphasize the role of individual rationality
- focus on representative agents engaged in constant strategizing
- reduce the human condition to market prices and contingent valuation

On the whole the radical theorists find capitalist enterprise to be all too forcefully directed toward the cultivation of personal advantage but at great social cost⁹.

The radical movement has lately been energized by:

- the emergence of new market-driven economies that do not subscribe completely to the neoliberal ideology (e.g. India, Brazil).
- the visible unevenness of the impact of unfettered markets around the globe (e.g. rising inequality in income and wealth distribution)
- the social and economic wreckage left by the 2008 banking crisis
- the distorting effect of sovereign wealth funds on international investment patterns

In particular, we can take note of the BRICS countries (Brazil, Russia, India, China and South Africa) none of which subscribe to the stringencies of the neoliberal ideology that remains popular in the Anglo-Saxon world. Not surprisingly, there are very cogent and empirically grounded arguments forwarded to express considerable skepticism about free-range globalization¹⁰.

They argue against the perceived inevitability of globalization as promoted by its advocates by pointing out that:

- globalization does not invariably create transnational corporations that may be trusted to spread jobs and prosperity all around
- capital mobility is not truly global since it is mostly confined among the developed nations of the world;
- there are no significant shifts in investment and employment from the developed world to the developing nations

As it happens, most trade, investment and financial capital flows happen to be confined to North America, Europe and Japan. It is true that China and India have lately become key players on the global circuit but even then the true extent of globalization is not as large as its promoters want us to believe.

Given that the predominant economic flows in our world are largely confined to three privileged regions suggests that these areas have considerable power and influence over these currents and likely to play them for their own advantage.

From the radical perspective, globalization is not only an implicit trait of capitalism but it is:

- an inherently unstable phenomenon
- operational only through continuous crises

Most radicals find indubitable proof of these undesirable traits in the sophisticated financial innovations that are believed to have paved the road to the global financial crisis in 2008. In particular these involved:

- the securitization of debt through collateralized debt obligations
- credit default swaps that offered insurance against risky financial products

Not surprisingly, these and other visible strains of unevenness continue to fuel virulent forms of activism against the entire globalization campaign. The activists never fail to stress that

- the globalist ideology is inherently regressive in nature
- what passes for global enterprise is innately exploitative

Sadly, the version of globalization generally promoted in the popular presses tends to conceal most of these questionable traits under the guise of free enterprise.



3.9 ON BALANCE

The health of a market system depends on healthy competition and a steady expansion of markets, both of which are conducive to promoting specialization and the cultivation of intricate divisions of labor. These in combination with economies of scale and scope continue to drive down the cost of production while making products and services more affordable.

For its advocates, globalization must be credited for bringing about:

- a clear rationalization of global production as advancing technology crosses national boundaries
- competitive pressures for continual innovation and improvement
- vast improvements in the economic position of the global citizenry by way of higher real wages and living standards.

No doubt these benefits need to be balanced against the costs associated with globalization. One of the clear costs concerns the matter of income and wealth distribution. In other words, we need to question if the benefits of globalization are in fact being evenly distributed among all layers of the citizenry of a participating nation.

These days the questions of fairness and equity are at the forefront of public concerns as it becomes clearer that the benefits of globalization are not shared equitably among individuals, organizations, nations and regions. Indeed there is a growing perception that the benefits of globalization tend to settle disproportionately on those who are already well off¹¹.

While optimists tend to maintain that globalization should be trusted to bring about a convergence of incomes across the globe the supportive evidence is weak at best. Even after the recent push to put globalization into over-drive it seems that broad swathes of developing nations in Africa, Asia and Central America are yet to benefit from its bounty.

Evidently, a critical problem with globalization is that

- the cultivated interdependence between nations tends to aggravate potential instabilities
- minor economic fluctuations in one part of the globe could easily cascade into a major crisis engulfing a whole host of nations.

Such was the 1998 foreign exchange crisis that started in Thailand and quickly spread across Southeast Asian economies. The drama was repeated ten years later with a global financial crisis that pushed the advanced economies of the world toward complete collapse. It may just be that the worldwide recessions or depressions that were endemic in the 1930s are not such a remote possibility in the present day. Very few are likely to doubt that globalization carries a clear potential for increasing economic volatility across the world. Often enough, economic conflict could easily fuel military conflict, inviting thereby a replay of the interwar period of skirmishes that eventually led to an all-out World War.

Perhaps the most serious problem with globalization is a shift in the locus of control of national economies from sovereign governments to:

- regional or global powers
- multinational or transnational corporations
- international organizations.

In other words, it is quite possible that globalization can undermine national sovereignty with impunity.

As readily as these sentiments can provide a linefeed into extreme patriotism, nationalism and xenophobia, all of these strains are becoming readily visible across the globe. We may very well be heading toward the forging of a new world order without knowing what form it is likely to take. Meanwhile there is ample evidence of dissonance and polarized views among broad sections of the global citizenry who are susceptible to extreme ideologies and explosive outcomes.

It is time we questioned the extent to which we are still able to

- capitalize on the positive potential of globalization through cooperation between nations
- minimize the negative effects of globalization by building supranational institutions of the order of the World Bank, the IMF, WTO and the OECD.

These days of high speed economic activity, the supranational institutions have to be far more vigilant than in the past, bringing about sanctions and serving as effective arbiters in global disputes. They need to monitor and oversee the dynamics of global phenomenon very closely.

In this venture economics cannot be the only factor of interest since there are equally important noneconomic factors that can easily derail the best laid plans of economic success. The most pressing matters for us remain:

- the question of global security
- the growing concern about geopolitical uncertainty
- the overarching question of environmental health.

3.10 BREXIT AND AFTER

So long as the globalization agenda remains committed to the neoliberal mindset we will continue to see uneven economic developments around the globe that strain national and international relations. A quite telling example of growing signs of discord is the recent Brexit move. The fateful decision of the citizens of United Kingdom to break away from the European Union was made on June 23, 2016 through a popular referendum.

All those who voted to remain feared the worst. They were afraid that global companies and the headquarters of global financial institutions might decide to desert Britain en masse. The fear is all too palpable that a massive capital outflow might jeopardize the economic health of the United Kingdom.

Through it all, it was hard not to see Brexit as a clear vote against globalization though not so completely against the idea of integrated markets. There can be no doubt that Britain still wishes to remain within the European common market but would not like to be bound by all the rules on the ground concerning economic policy coordination. Thus Brexit appears to have been a vote more against the seemingly excessive regulations of the Eurozone than against the spirit of free trade and open markets.



In any event, the aftermath of the referendum occasioned several cautionary steps were taken to neutralize the shock of Brexit.

- the Bank of England loosened up monetary policy quite significantly
- the new government under the stewardship of Theresa May moved fast to tone down the talk of fiscal austerity favored by the previous administration.

In the financial markets there appears to be great concern about the value of the sterling pound and the problem it is likely to have once Brexit begins to bite starting in 2017. For a net importing country such as Britain, a strong currency is much needed as is the access to open markets around the world. Without it there is always a risk of inflation combined with an economic slowdown. Inasmuch as Brexit appears to have jeopardized both the value of the currency and easy access to export markets, the long-term health of the economy is put under great pressure.

The post-Brexit challenges facing the United Kingdom concern all of the following:

- the trade advantages reaped by lower tariffs that will follow the departure from EU may prove to be elusive
- the loss of free access to the European markets
- the likely limitations to accessing global credit for investment purposes.

It is difficult to see how these competing forces that continue to tug at the future economic prospects of a newly liberated Britain can be addressed sensibly. The two most important questions that remain to be answered are jobs and investment both of which happen to be in uncertain territory at the moment.

In sum, post-Brexit economic success depends on the extent to which Britain will have:

- continued access to the European markets
- continued access to global credit markets
- export advantage due to a cheaper sterling pound

3.11 GLOBALIZATION'S FUTURE

There is no doubt that the shape of the world economy in the 21st century could not have been anticipated even half a century ago. Today's world is well into the maturation phase of a process that was unleashed at the conclusion of World War II. The latest surge since the end of the Cold War has been facilitated by

- great strides in information technology
- continued commitment of most industrialized nations to a free movement of capital and free trade

Undoubtedly, the United States has been a dominant force in shaping the latest round of globalization. This has been accomplished largely by:

- establishing multilateral institutions to facilitate trade
- sponsored trade rounds that continue to bring most participating nations to the table
- opening up markets in the developed world and promoting commercial liberalism

However, eminent scholars of international relations see visible signs of strain amid the great explosion of trade and investment around the globe¹². The most notable among these are:

- the steady erosion of the Bretton Woods rulebook established in 1944
- growing reluctance of the US to provide strong political leadership
- growing risk of financial upheavals that can threaten the global markets
- gathering currents of economic nationalism across the developed world

Clearly, the departure from a gold-backed US dollar in the 1970s (Bretton Woods) eroded a big chunk of the economic guarantees behind globalization. While it may be easy to argue that this signature move facilitated free movement of financial capital around the globe, it also meant enhancing the volatility of international finance, a questionable prospect that most advocates of globalization choose to forget.

Instead of forging larger global alliances, the receding of the shadow of the Cold War, has witnessed the emergence of several regional economic blocs:

- The European Union
- Asia-Pacific Economic Cooperation (APEC)
- North American Free Trade Agreement (NAFTA)

Given that the Chinese yuan has recently joined the US dollar, the UK pound, the euro and the Japanese yen as an international reserve currency only reinforces the idea that the promise of global integration is fast being replaced by a global economy pulled between competing regional blocs that are in turn dominated by fewer powerful economic players.

As it happens, more and more of the trade deals, tax arrangements and investment activity are taking place outside of the rule-based regimes of the postwar period. The economic globalization that we witness today appears to be in dire need of new rules and institutions but how quickly these are likely to be established is impossible to predict. The prospect of globalization looks uncertain at best.

STUDY FOR YOUR MASTER'S DEGREE N THE CRADLE OF SWEDISH ENGINEERING

Chalmers University of Technology conducts research and education in engineering and natural sciences, architecture, technology-related mathematical sciences and nautical sciences. Behind all that Chalmers accomplishes, the aim persists for contributing to a sustainable future – both nationally and globally.

Visit us on Chalmers.se or Next Stop Chalmers on facebook.



Questions

- 1. Explain why globalization is considered to be an inherently multi-disciplinary issue. Why does it defy easy theorizing?
- 2. Evaluate the merits of the world-systems paradigm and what it suggests about the true nature globalization.
- 3. Globalization theories appear to have come in three waves. Briefly outline their key features.
- 4. Explain briefly the three important facets of globalization that are directly within the purview of international economics.
- 5. What are some of the inherent limitations associated with the economics of globalization? Is there any feasible way to overcome them?
- 6. Explain the role that the IMF, the World Bank and the WTO play in the dynamics of globalization. What may be some of the shortcomings associated with their policy stance?
- 7. From a radical perspective globalization appears to be an exploitative system. Do you agree? Why or why not?
- 8. In Europe, East Asia and Latin America there is a noticeable departure from and growing reluctance to accept the demands of globalization. What factors might explain this growing aversion?
- 9. Explain why Brexit may have unsettled the future of globalization in a big way. What might be the economic outcome of the fateful British referendum?
- 10. What is the future of globalization? How might the growing reluctance of the U.S. to take a more active role in managing globalization affect its direction?

4 NATURE AND ENVIRONMENT

4.1 INTRODUCTION

The environment is an inherently global construct. This should be evident from the many life-sustaining ecosystems and watersheds without which our lives would have been impossible. Consider for instance the atmosphere; it protects our climate while shielding us from very harmful UV rays.

We have little choice but to view the environment as a common heritage of humankind that cannot possibly be cordoned off for private use. Furthermore, given that environmental pollution does not respect national boundaries nor any imaginary lines that we may believe to divide continents or oceans, the environment needs to be responsibly managed in the collective interest.

However, the task is quite difficult with globalization pushing for ever-higher standards of living all the time. It cultivates an appetite for all kinds of products and services which in turn fuels an ever-enlarging scale of consumption, production and unavoidable waste. A few side-effects are:

- greater waves of urbanization
- large-scale expansions in infrastructure and superstructure
- an expanding scale of landscape intrusion
- destruction of natural surroundings
- interruption of the natural processes of drainage and filtration
- interruption of the processes of natural rejuvenation

The tremendous surge in globalization and industrialization in the last couple of decades has increased the overall scale of exploitation and transportation of raw materials, fuels and goods to heretofore unimaginable levels.

The trouble is that not all the associated costs are faced by the present generation but passed onto the future. Consequently, the undesirable effects may be felt over many generations to come. What makes matters worse is when the impact is irreversible.

Take plastics for instance; it is one of the most toxic pollutants and it is a non-biodegradable product. It has the potential to influence the environment long after the immediate consumptions needs have been satisfied.

In this section we shall first familiarize ourselves with environmental basics before looking at how globalization interacts with the environment. We shall examine the endowment of natural resources, the environmental stresses and scarcities that accompany globalization and the economic questions that arise therefrom. The chapter concludes with a look at the promise of renewable resources and the pressing matter of sustainable development.

4.2 NATURAL RESOURCES

We have already noted that globalization is all about expanding markets. As may be expected, opening up new markets very often means finding new reserves of natural resources as well. This often means laying claims on:

- virgin forests (e.g. rainforests in Latin America and Southeast Asia)
- untapped mineral reserves (e.g. bauxite, tungsten, cobalt)
- fossil fuels (e.g. coal, natural gas, oil)
- fish and wildlife
- fresh water sources (e.g. the Great Lakes in North America)



Unfortunately, none of these resources are as abundant as we would like to imagine. A growing scarcity of valuable resources is therefore inevitable as populations continue to grow along with greater demands for a better standard of living.

The problem of scarcity extends from oil, timber and metal all the way to energy, water, ecosystems, biodiversity and the atmosphere. While the world's natural resources are too numerous to count, we shall look at three broad groupings:

- minerals (e.g. iron, copper)
- fossil fuels (e.g. coal, oil)
- ecosystems (e.g. water, rainforest)

4.2.1 MINERALS

There is already a growing perception that the global economy is slowly drifting toward acute shortages in the supplies of non-renewables.

A 2012 BBC report on the remaining stock of global resources noted that some essential minerals are likely to run out within the next twenty years. Following the time line of resource exhaustion, we might sample a critical list:

- Antimony used for drugs and batteries (supply to run out within the next decade)
- Indium used for touchscreens and solar panels (expected to run out in twelve years)
- **Silver** for awards medals and jewelry (expected to run out within the next two decades)

If the horizon of resource exhaustion is extended to about fifty years then three more metals could be added to the list; they are:

- Copper, needed for brass, wires and piping
- Titanium, needed for aircraft and armor
- Tantalum, needed for mobile phones

4.2.2 FOSSIL FUELS

Within the next decade the fossil fuels that are in serious danger of being depleted are: oil, natural gas and coal. Currently these three provide close to 90% of the energy needs of the world. By the end of the 21st century nearly all of the fossil fuels that are economically recoverable (i.e. profitably extractable) are likely to be gone.

Since around 80% of the global international trade in goods relies on ocean shipping, it means a significant consumption of fossil fuels. Consequently, any depletion in fossil fuels must have a sizeable impact on maritime transport.

The same may be said of air transport as well since each ton of freight moved by plane uses about fifty times as much energy per kilometer compared to moving the goods by ship. Add to that the rising costs of ground transport and the picture is not too appealing.

As yet we do not have cheaper or better substitutes for oil. Admittedly, there are unconventional hydrocarbons that are gradually becoming more available. These include:

- liquefied natural gas
- heavy oil (used for marine diesel engines)
- synthetic oil made from chemical compounds artificially made
- biofuels (e.g. ethanol, biodiesel and biogas)

These alternative sources of energy have undoubtedly added to the existing oil supplies but this cannot detract from the fact that the largest and most productive oil fields are fast becoming depleted while new discoveries have been very slow to come on line in the sense of being commercially viable.

The recent tapping into proven reserves of shale gas, most notably in the U.S. and Canada, may have postponed the day of reckoning by a decade or two. But according to the Parisbased International Energy Agency, by 2030 the rate of decline in fossil fuels is likely to fast accelerate¹.

Notwithstanding our boundless optimism regarding the technological possibilities of the future, once the reserves of fossil fuel go into serious decline, no technology may come up with suitable substitutes to pick up the slack.

4.2.3 ECOSYSTEMS

The last on the resource list marked for rapid depletion are our ecosystems. An ecosystem refers to an environment made up of living species and non-living elements. The essential components of most ecosystems are: water, air, sunlight, soil, plants, microorganisms, insects and animals.

Ecosystems fall into three major classes:

- terrestrial ecosystems (e.g. tundra, deciduous forest, tropical rain forest)
- fresh water ecosystems (e.g. streams, rivers and lakes)
- marine ecosystems (e.g. coral reef, estuaries)

In our growing world there is a greater need for the production of crops and biofuels; this is already causing tropical forests to be cleared continually. Not surprisingly, this also hastens the extinction of animal species while bringing about a degradation of biodiversity. The result is a loss of vital ecosystem services such as:

- nutrient retention in the soil
- supply of clean water
- availability of top soil
- carbon storage capacity



Moving onto water ecosystems that are equally vital to our lives and livelihoods, we find that they are hugely instrumental in:

- replenishing water resources
- purifying water resources

Consequently, a blanket elimination of marshes and wetlands in favor of economic development is rather shortsighted. Given that wetlands and marshes are a natural sponge for runoffs, their elimination means:

- A diversion or alteration of the flow of surface water
- increased exploitation of underground aquifers
- contamination of groundwater by waste and discharges from industry and transport, household and human waste.

Tragically, marine ecosystems are not beyond the pale of a changing environmental reality either. Some of the best examples of a recent decline in marine habitats are:

- mangrove forests in intertidal zones (i.e. an area of the shore that is between the low and high points of the tide)
- seagrass beds that fringe coastlines
- salt marshes that are important as natural storm barriers
- shellfish reefs that filter seawater

Modelling studies by American scientists a few years ago estimated that the northern polar waters could become completely ice-free within a few years². This is part of the global warming phenomenon that is much talked about. It is expected to contribute to a sea level rise thereby inundating coastal habitats.

The growing concerns about coastal ecosystems have to do with the:

- wetlands that act as natural filtration systems for freshwater
- estuaries that provide choice habitat for fish and other foods sources
- irreplaceable mangroves that are home to crabs, shrimp, oysters and mussels
- **coral reefs** that are essential spawning, breeding and feeding grounds of numerous organisms

All of these key pieces of the coastal ecosystem act not only as indispensable barriers against sea level fluctuation but valuable storehouses of biodiversity.

4.3 ENVIRONMENTAL STRESSES

The most visible impact of the complex interaction between globalization and industrialization falls on the ecological cycle as pollution levels begin to rise at all levels. The outcome is an all-around reaction chain that involves:

- an overall increase in the greenhouse effect.
- depletion of ozone layers
- straining of nonrenewable sources of energy
- release of various undesirable chemicals into the soil
- the growth of many noxious weeds and plants

The rest of this section looks at the environmental stresses produced by the greenhouse effect, the process of deforestation and the overexploitation of oceans and ecosystems.

4.3.1 GREENHOUSE EFFECT

Admittedly, the needs of development cannot be ignored but one of the fastest growing problems in our world today is carbon dioxide emission. These emissions are due to:

- burning coal, natural gas and oil for electricity and heat
- industrial emissions from chemical, metallurgical and mineral transformation processes
- deforestation and clearing land for agriculture
- management of agricultural soils, livestock, rice production and biomass burning
- fossil fuels (petroleum-based fuels: gasoline, diesel) burned for transportation (road, rail, air and marine)
- commercial and residential buildings: on-site energy generation and burning fuels for home-heating or cooking

Nitrogen and other gases are also released into the atmosphere from biodegradable waste and wastewater that release methane and other gases. The increased emission of greenhouse gases succeed in trapping the rays of the sun in the earth's atmosphere. Scientists find the resulting greenhouse effect to be largely responsible for global warming and climate change³.

Increasingly it appears that the surface temperature of the earth is rising which in turn is causing polar ice sheets and ice caps to melt. Scientists trace the rise of the earth's temperature to:

- a phenomenal growth of industrialization in the developing world
- a massive increase in the level of transportation crisscrossing the globe
- a growing reliance of humans on fossil fuels

Transportation alone has increased manifolds within a relatively short period of time, causing the emission of greenhouse gases to rise spectacularly.

4.3.2 **DEFORESTATION**

Another factor that aggravates the problem of carbon emissions is deforestation. About half of the forests that once covered the earth are already gone. But deforestation is still advancing at an alarming rate and penetrating into the remaining areas of undisturbed forest due to:

- Timber concessions that lead to cutting down age-old trees
- Rapid logging using modern technology and equipment
- Expanding global timber market due to changing fashions (e.g. hardwood flooring in modern homes)

It may be said that most of the native forest wood currently exported from Australia amounts to destroying a great natural heritage. However, what makes the preservation of any natural heritage so difficult is that in the wake of globalization, goods and people are constantly on the move.



This means a constant demand for building infrastructure and superstructure ranging from new seaports and airports to high speed railways. This often means zipping open densely forested areas to create roadways using no more than a bulldozer.

4.3.3 OVERFISHING

Today even the world's oceans are not safe from the grasping reaches of globalization. The most significant problem facing our oceans are:

- big fishing trawlers that continue to vacuum up fish from the ocean
- overfishing that pushes fish stocks down below acceptable levels.

This is reminiscent of the early 1800s when the hunt for blubber for lamp oil decimated the whale population. In the mid-1900s the same fate greeted the Atlantic cod and herring as well as California's sardines, pushing all of these species to the brink of extinction.

By the late 20th century, these disruptions were no longer regional problems but became global and catastrophic. At present, cod, a staple in the highly iconic English fish and chips, is fast becoming scarce and the authorities are toying with the idea of strict rationing to regulate fishing for global markets.

Today more than 70% of the species are being fished at or beyond sustainable capacity. More than a decade ago, the Food and Agricultural Organization of the UN raised an alarm about global stocks of fish, especially the commercial species⁴. Nonetheless, the spectacular rates of exploitation have continued unabated so that:

- more than half of the fishing grounds in the world today are already in decline
- a quarter of the global fishing grounds are completely fished out commercially.

4.3.4 HABITAT DESTRUCTION

The threat to the ecosystem has to do with its innate fragility. For instance, unsustainable developments in aquaculture, tourism, transportation could easily wreck an ecosystem. Biologists consider the chief proximate cause of ecosystem fragility to be:

- agricultural use that includes crops and grazing activity (e.g. slash-and-burn agriculture in Madagascar, Indonesia and Brazil);
- surface mining causing pollution (e.g. air pollution dispersing nitrogen oxide, sulfer dioxide which can alter the metabolism, fitness and mortality of flora and fauna)
- use of chemical herbicide and pesticide

- water pollution, air pollution and acid rain
- urban development and infrastructure: roads, power plants, desert solar arrays, pipelines and transmission lines
- timber harvesting and deforestation
- introduction of invasive alien species nonnative to an ecosystem

Closely associated with the fragility of ecosystems is the harsh reality of what biologists think of as habitat destruction which means:

- Rendering a natural habitat unsuitable for supporting the species dependent on it
- Driving animal species and organisms to extinction
- Reduction of biodiversity

Ultimately, an irresponsible use of ecosystem services could mean a steep loss in the economic value of the environment. These days, the visible signs of stress to our ecosystems come by way of:

- topsoil erosion causing land infertility and desertification
- reduction in sustainable yields of fisheries, forests and other biotic resources
- loss of pollinators (bees)
- reduction in water quality due to sedimentation
- loss of carbon storage capacity of the environment
- reduction of surface water resources
- loss of genetic material that provide medicinal value.

Not unexpectedly, all of these in turn have an extensive impact on biodiversity and weather systems all over the world.

4.4 WATER SCARCITY

There are critical linkages between water, health and ecosystems that we can ignore only at our own peril. Here are a few sobering thoughts:

- Most of the earth's surface is covered by water
- Most of the human body is composed of water
- More than a third of the world's population lives around coastal ecosystems

Thanks to the increased economic growth triggered by globalization, freshwater consumption has risen steeply in recent decades as the supplies of freshwater all around the globe have begun to dwindle. Looking over the last hundred years, the following facts stand out:

- Growth in global freshwater consumption at a rate more than twice that of population growth
- Worsening access to potable (i.e. safe to drink) water for nearly a fifth of the world population
- greater vulnerability to waterborne diseases (e.g. cholera, E. Coli) among the world's poor

Somewhat surprisingly, mostly in developing countries, total freshwater withdrawals (both surface and groundwater) are believed to have increased only marginally since the late 1980s, while in most developed countries, freshwater withdrawals have actually declined or stabilized. This suggests:

- definite improvements in the efficiency of water use
- increased importation of water-intensive goods, in particular, food.

Luxurious accommodation

ido

Central zone 1 & 2 locations

Meet hundreds of international students

BOOK NOW and get a £100 voucher from voucherexpress

Nido <u>Student Living</u> - London

Visit www.NidoStudentLiving.com/Bookboon for more info. +44 (0)20 3102 1060

A 2014 United Nations World Water Development Report notes that groundwater supplies are diminishing fast with an estimated 20% of the world's aquifers being over-exploited, some rather massively. This is not surprising since with the scale of globalization moving into overdrive, the global demand for water withdrawals is projected to increase by more than 50% by 2050.

There is every reason to anticipate significant growth all around the globe in

- manufacturing industries
- thermal power generation
- commercial agriculture
- expansive domestic use

However, the real challenge to usable water resources is compounded by:

- pollution degradation along with reduced retention of freshwater resources (e.g. loss of wetlands)
- natural soils and detritus replaced with pervious soils and even pavement.

Most shockingly, nearly 800 million people around the globe continue to struggle without access to an improved source of water. This combined with the fact that more than a third of the global population continue to exist without access to improved sanitation pushes the problem of water scarcity to a crisis level.

Therefore, globalization faces an ethical challenge given that nearly half of the global citizenry is deprived of a fundamental human right to water while the essential linkages in ecosystems, from waste disposal to protecting people from contaminated water resources continue to be strained to a breaking point.

Unfortunately, the challenges created by global forces need to be addressed at the local level for human survival depends on the intricate connections between basic hygiene, filtration and storage practices, municipal sanitation and waste disposal systems. By the same token, local resources may be simply inadequate to extend development priorities to include regular monitoring of:

- water quality standards
- water-related disease indicators
- the long-term health of water resources.

4.5 **BIOINVASIONS**

Often enough, the emission of toxic waste as a byproduct of industrialization interferes with the genetic makeup of plant life thereby producing results that are not always beneficial to the sustained health of human life on earth.

Fast-paced industrialization has been known to create a few nasty surprises. On top of the list should be the influx of invasive species that crop up as a reaction to the release of pollutants and toxic substances into nature⁵.

• Note: Invasive species could be any plant or organism that has been introduced to an environment in which it is not native. It can still take to the new surroundings and spread fast, thereby crowding out native species and damaging the environment, ecological balance and human health.

Invasive species are capable of bringing about a subtle form of habitat destruction as well. Most often, flora or fauna introduced by humans tend to crowd out native species. Two examples stand out:

- European settlement in the mid-1800s introduced exotic European and Asian grasses that eventually destroyed the California coastal prairie
- Blooming pfiesteria in the Chesapeake Bay area as a natural adaptation to toxic runoff from overactive commercial farming.

Believe it or not, in recent times, globalization has also facilitated an epidemic increase of bioinvasions. The list of alien species stretches from exotic seeds (carried by hikers) to gypsy moths and zebra mussels.

As the invaders quite successfully take to their new homes they are also capable of precipitating unexpected health crises. Lately scientists have begun to cite bioinvasion as a major cause of species extinction.

With the spectacular rise in global transport, billions of organisms are also on the move, traveling thousands of miles concealed in cargo or lying low in the ballast of ships. They may even be in our travel luggage or stick to our shoes or even cling to the sides of the ships that criss-cross the global waters.

By far the most lethal aspect of globalization is the spread of living organisms that can transmit infectious diseases between humans or from animals to humans. The 2009 pandemic known as "swine flu" illustrated the potential for contagion as air travel helped to spread the disease to numerous countries in record time.

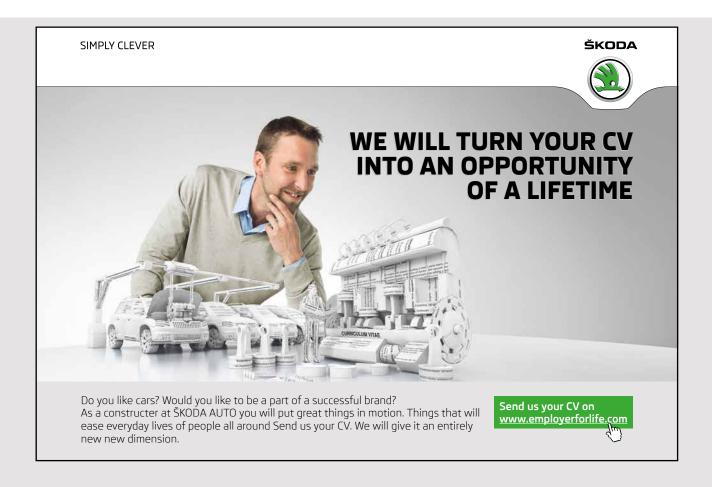
Last but not least, the globalization of food supplies creates a huge potential for spreading disease. Consider the spread of bacteria such as Salmonella and E.coli. The demand by affluent nations for fresh fruits and seafood year-round means that these foods have to be imported from foreign lands that do not necessarily follow the best health standards concerning harvesting, storage, processing and transport of food.

4.6 ECONOMIC EXTERNALITIES

As we have seen thus far, globalization impacts the balance between economic development and the environment, one that is becoming increasingly precarious with every passing decade.

On the face of it, the relationship between globalization and the environment has two essential dimensions:

- **Demand side**: population growth that creates an increased demand for essential resources (e.g. demand for coal in China since 2001 when it joined the WTO and became an active participant in global trade)
- **Supply side**: better technology that makes possible more efficient extraction and on an ever-increasing scale (e.g. bottom trawling in fishing that cleans out marine life from the ocean floor)



Inasmuch as globalization allows a free flow of information, culture and ideas along with ever-newer technology, the changing scale and composition of demand have a sizeable impact on the environment.

Let's not forget that along with collapsing our sense of time and space, globalization constantly fuels new fashions and fads. We could say that mass consumerism is the most visible feature of demand that taxes local environmental resources.

On the supply side, technological progress makes possible very large increases in productivity and supply. These in turn make possible large scale extractions of minerals and other resources at greater speed and efficiency.

Consider for instance how commercial fishing trawlers are so effective at vacuuming fish out of the ocean while threatening to deplete fish stocks to dangerous levels (e.g. Bluefin tuna, Atlantic cod and halibut). This makes it impossible to ignore the tremendous power of the global economy to:

- exploit nature that may actually exceed the innate capacity of the environment to replenish and sustain itself
- generate globalized externalities that are seldom confined to national boundaries

Already the losses to fisheries and agricultural productivity have reached into the hundreds of billions of dollars per year. In addition, the loss of topsoil and pollinators means:

- an alarming loss of food security for many hundreds of millions of people
- an escalation of food and water conflicts around the world
- a heightened risk of famines and warfare

Here it would be wise to remember that not only does globalization impact the environment but the health of the environment in turn impacts on the pace, direction and quality of globalization. This reinforces the idea that economy and ecology are not completely separate entities nor can they operate independently of each other.

The tremendous consumption possibilities opened up by globalization bring in a whole host of externalities or spillover effects that need to be properly accounted for.

• Note: Externality is the cost or benefit of an economic activity that is experienced by an unrelated third party who did not choose to face such an outcome. A **positive** externality means unintended positive benefits for all third parties while a **negative** externality imposes unintended costs upon others.

A most common example of a negative externality is a manufacturing activity that produces air or water pollution. In contrast, making improvements to one's residential property is a positive externality that may help improve the value of all the properties in the neighborhood.

The enormous push to modernize that accompanies globalization could take negative externalities to an extreme level. Such is the fear of the Dongriya forest people of Orissa in India. Their way of life is being threatened by a global mining company that wants to dip into vast reserves of bauxite, the mineral from which we get aluminum⁶.

Often enough all it takes is to build modern roads into deep forests which is the surest way to disrupt a tribal way of life, not to speak of destroying a forest habitat. It could be just as devastating as the transmission of disease vectors and animal pathogens we saw earlier.

Irrespective of whether it is the risk of pandemics or irresponsible industrialization, the negative externalities need to be monitored carefully to avoid the severely adverse economic impact that could easily make an economy unravel without warning.

4.7 TRADEOFFS

All things considered, globalization provides an interesting platform on which to weigh the question of preserving environmental health versus finding new ways to alleviate poverty for broad swathes of humanity.

It is not so easy to strike a meaningful balance since environmental protection could easily be a drag on economic growth in the short run, but adversely affect human well-being over the long term.

As may be expected, compliance with strict environmental regulations could easily:

- drive up the operational costs of industries
- erode the competitive position of industries
- destroy the comparative advantage of nations in trade

In fact, environmental compliance might even force businesses to lose their competitive position in global markets thereby adversely affecting the overall health of an economy.

However, environmental activists consider slower growth to be entirely worthwhile if that means returning the environment to good health. But their detractors find it far better to:

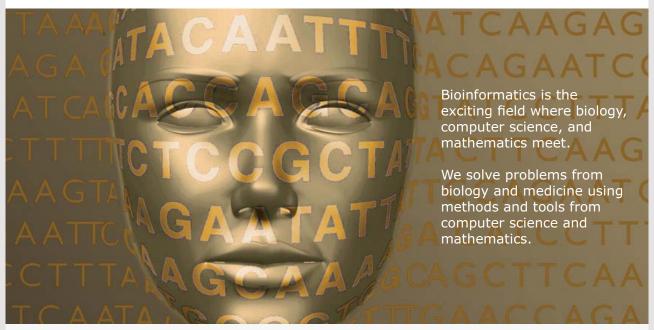
- Rely on unrestricted market forces and technological advances to solve environmental problems (e.g. sharing eco-friendly technology)
- Answer environmental challenges by lifting people out of poverty first before resorting to greater regulation (e.g. growing environmental consciousness born of affluence).

After all, it cannot be denied that oppressive poverty in developing countries has been known to cause serious environmental degradation. Often enough, traditional forms of agriculture involve deforestation which could seriously ruin the rich biodiversity of rainforests (e.g. the Brazilian Amazon).

Interestingly enough, free market advocates point to an environmental Kuznet's curve according to which globalization may at first worsen environmental health but not to the point of no return. Eventually economic improvements and rising living standards could lead to greater public awareness and restore the environment back to health⁷.



Develop the tools we need for Life Science Masters Degree in Bioinformatics



Read more about this and our other international masters degree programmes at www.uu.se/master

As we can appreciate, there is no easy way to sort through the complex interconnections between the environment and economic health and toward an easy resolution. Thus countries invariably get entangled in a web of restrictions, threats and counter-threats which have to be resolved sensibly.

The danger is, if countries begin to close down their borders one after the other then a massive global economic slowdown is almost certain. Consequently, there is every reason to avoid such a disaster by forging trade agreements as well as creating workable environmental alliances. This also invites:

- Healthy sponsorship from MNCs that stand to win big and benefit handsomely from environmental alliances.
- Organized campaigns to promote environmental awareness and responsible management of the dwindling environmental resources.

In the end, it is worth remembering that there are very few instances when environmental disasters may be contained within national boundaries. The implications could be quite serious as has been seen from the:

- Chernobyl nuclear disaster in the Ukraine in 1986 causing uncontrolled release of radioactive substances into the environment
- Japanese earthquake and tsunami of 2011 that caused the nuclear power plant at Fukushima to buckle and release substantial amounts of radiation into the atmosphere

4.8 MOUNTING INSECURITY

According to the United Nations there are several serious threats to human security and well-being:

- Continual resource depletion
- Unmonitored environmental degradation
- climate change (global warming and water tables rising)

Either separately or in combination with many other factors, these developments could be quite onerous when it comes to protecting lives, ensuring livelihoods and responsibly managing ecosystems. As may be expected, most conflicts generally arise over the crucial questions of ownership, management, allocation and control over scarce resources. From an economic viewpoint, there are three main causes behind an increase in resource scarcity:

- **Demand-induced scarcity**: when existing supplies cannot meet demand (e.g. water or cropland not meeting all local needs, population growth, new technologies or increases in consumption needs per capita).
- **Supply-induced scarcity**: environmental degradation, pollution, natural variation or breakdown in delivery infrastructure that threaten to interrupt a supply chain.
- **Structural scarcity**: when different groups in a society face unequal access to vital resources (e.g. fresh water, cropland, grazing land). This may be due to established cultural practices, gender dynamics, social and economic barriers.

Since local and national institutions often lack the capacity to resolve skirmishes and disputes that may arise over the degradation or depletion of resources, violent conflicts are a definite possibility. The situation worsens as:

- both populations and economic growth continue to increase in tandem
- there are ever-larger demands made for scarce resources, the extraction of which pushes beyond the powers of natural renewability.
- national governments give up the power to manage and control local environments in the face of demands from expanding global markets

Consequently, it is increasingly crucial that policymakers understand how to prevent conflicts over natural resources, and how to contain and defuse such conflicts when they occur.

Not surprisingly, the stock of vital renewable resources is gradually becoming a predominant concern in global policy deliberations. These involve:

- the availability of freshwater resources
- ready access to fertile cropland
- sufficient availability of rangeland
- preserving the global stock of forests
- the availability of fisheries and other wildlife.

Disputes over renewable resources are also becoming a regular feature of modern life as social fissures and deepening rifts and resentment threaten to trigger widespread unrest at every turn. Apart from negatively impacting on ecosystems, these can easily destabilize livelihoods, and undermine peace and development.

It may be foolhardy to imagine that technological progress is the answer to finding substitutes for a ransacked environment or replenishing depleted reserves of natural resources. Thus globalization creates a new urgency to address the social stresses that arise due to uneven adaptations to the demands of global markets.

For starters, the tensions arising out of the scarcity of the life-giving environmental resources should be allowed to define the future contours of globalization. Above all, we need to devise social institutions that can balance our need for a satisfactory quality of life with responsible environmental management.

4.9 SUSTAINABILITY

This brings us to the question of sustainability. The idea is intimately connected to the simple principle that directly or indirectly, our survival and well-being depend critically on the health of the natural environment.

The goal of sustainability is to create and maintain the conditions under which both humans and nature can coexist in productive harmony and meet the social, cultural and economic needs of present and future generations.



The idea of sustainable development came out of numerous environmental movements over the last couple of decades. Early on environmental activist groups such as Greenpeace and Friends of the Earth pushed to introduce environmental issues into business and government agendas.

This gradually shifted to the problem of sustainable development that focused on:

- Climate change
- Energy scarcity
- Biodiversity loss
- Water scarcity
- Social justice

Thus sustainability may be best viewed as a mishmash of environmental, social and economic issues. The fact that the scope of the problem has broadened over the last decade is an indication of the growing stresses and strains underlying globalization.

The World Economic Forum (WEF), an international institution committed to improving the state of the world through private-public cooperation, suggests that economic competitiveness may increasingly be coming at the expense of social and environmental sustainability. Their list of concerns includes:

- Rising unemployment rates in many advanced countries
- Rising income inequalities and social unrest in rapidly growing economies
- Increased pressure on natural resources and high levels of pollution

In response the WEF seeks to define a set of institutions, policies and factors that might enable all members of a society to develop the best levels of health, participation and security.

While there is no way to deny the pressing need for sustainable development and growth all around, the complexity of economic calculations often tends to overwhelm serious concerns about environmental health and that must be avoided as best as possible.

4.10 RENEWABLE RESOURCES

Clearly, the first step toward sustainable development must be to welcome the possibility of generating more renewable resources. The U.S. currently relies heavily on coal, oil and natural gas for its energy needs. With fossil fuels being essentially nonrenewable, their supplies will eventually:

- move onto a path of fast decline
- become too expensive to access or extract
- cost too much in terms of environmental damage

Logically, it is not possible to discuss the issue of sustainability without factoring in renewable resources and by far the most important piece of the puzzle is renewable energy. The U.S. Energy Information Administration ranks renewables according to usage:

- Biomass (use of plant matter and animal waste to create electricity)
- Hydroelectric power (use of flowing water to move turbines to generate electricity)
- Wind power (using wind to run turbines to generate electricity
- Geothermal energy (using heated water and steam from the earth to run power stations)
- Solar power (using photovoltaic panels, solar collectors and thin-film solar sheeting)

Unlike fossil fuels, the renewable resources are not depleted once harvested. Instead they can be regenerated or replenished with careful management.

Wind power is one of the fastest-growing energy sources and at present it is also the least expensive alternative fuel source available. By comparison solar power continues to be far more expensive. While biomass in the form of wood once supplied most of U.S. energy needs, today it supplies less than 10 percent of the total needs.

According to the World Water Assessment Project of the UN, hydroelectricity continues to be by far the largest renewable source for power generation in the world. Its share in total electricity generation is expected to remain around 15% all the way through 2035⁸.

When we consider the global primary energy supply, less than 2% of it comes from renewable resources at present. Given the existing stock of technological knowledge, these alternative sources of energy are not very likely to grow fast enough to fill the fossil fuel gap any time soon. Nevertheless, with the rising cost and decreasing availability of nonrenewable fossil fuels, finding renewable resources is turning out to be a pressing imperative.

Questions

- 1. Explain how a steadfast push for global abundance still manages to create a worldwide scarcity of a lot of essentials.
- 2. What do scientists mean by the greenhouse effect? How is it connected to the forces of globalization?
- 3. Since scarcity always causes prices to rise, couldn't we expect people to begin to conserve our global resources through pricing alone? Why or why not?
- 4. The fact that global fossil fuels are plentiful at present should keep us from desperately looking for alternative sources to ease any shortages. Do you agree? Explain.
- 5. Cite a few reasons why globalization may be blamed for creating environmental stresses.
- 6. If globalization promotes environmental stresses could it also be relied upon to generate an environmental consciousness? Why or why not?
- 7. What is the difference between supply-induced scarcity and demand-induced scarcity when it comes to the relationship between the environment and globalization? How do these compare to structural scarcity?
- 8. What is the connection between globalization and human insecurity? Why is it nearly impossible to find a reasonable solution at the regional or local level?
- 9. Provide three examples of how globalization continues to aggravate the precarious state of the environment's ability to restore and rejuvenate itself.
- 10. Explain what environmentalists mean by sustainable development. What kind of challenges does globalization pose to the idea of sustainability?

5 WORK AND WAGES

5.1 INTRODUCTION

Critics of globalization often say that global economic integration tends to increase worker insecurity. This is not least because financial capital can flit around the globe quite freely but labor does not possess the same quality.

The advocates of globalization counter this view with the assertion that modern technology is just as able to take work across national boundaries as to bring work to a willing worker. Thanks to the internet and the telecommunications revolution, workers are now able to telecommute which means being able to perform a task online without physically having to travel to a job.

However, the debate does not end there. As globalization permits the offshoring and outsourcing of labor, it also makes labor demand quite highly responsive to market forces. This does not always translate into equitable pay or benefits across labor markets. Add to this the resolute push for market flexibility all around and we can begin to see why workers everywhere have begun to complain about rising uncertainty and insecurity.

Brain power

By 2020, wind could provide one-tenth of our planet's electricity needs. Already today, SKF's innovative know-how is crucial to running a large proportion of the world's wind turbines.

Up to 25 % of the generating costs relate to maintenance. These can be reduced dramatically thanks to our systems for on-line condition monitoring and automatic lubrication. We help make it more economical to create cleaner, cheaper energy out of thin air.

By sharing our experience, expertise, and creativity, industries can boost performance beyond expectations. Therefore we need the best employees who can meet this challenge!

The Power of Knowledge Engineering

Plug into The Power of Knowledge Engineering. Visit us at www.skf.com/knowledge

SKF

In this section we shall look at the labor market issues a bit more closely. We shall begin with the shift in economic sentiments in the 1970s and the structural changes that followed. How these impacted the nature of work, labor standards, occupational composition and income security will be considered next before concluding with the global outlook for labor.

5.2 SHIFTING SENTIMENTS

It seems that by the end of the 1970s the global economic certainties that underscored the golden age of capitalism after the end of WWII were gradually evaporating. The onslaught of stagflation (see section 1.6.3) had a lot to do with it.

As it happens, economic policy direction soon turned to a reassessment of business priorities and a reevaluation of the employment and wage-setting practices current at the time. With inflation being a major concern in the capitalist world, it led to:

- Startling transformations in union contracts.
- well-publicized efforts by businesses to freeze wages or to install wage cuts.

On one side this meant a push to cut production costs and a simultaneous effort to expand markets on the other. Since business expansion ordinarily depends on easily available credit and the latter in turn depends on the expected profit picture of a business, a fervent search for cheaper resources around the globe combined with a call for integrated capital markets. Together these renewed the impetus for globalization.

Understandably, flexibility became a byline for globalization which meant:

- a systematic deinstitutionalization of labor (e.g. dismantling unions)
- deregulation of finance (e.g. lifting depression era banking rules)

This suggests that the playing field was not quite even from the start. After all, financial capital is inherently more mobile and flexible; it can traverse the globe at the speed of light but the same cannot be said about labor. Not surprisingly, labor market flexibility often means that:

- employers need not be stationary entities confined to national boundaries
- employers are no longer bound by past obligations to their workers
- past labor standards could be relaxed citing the pressure of global market competition

Thus globalization introduced significant changes in the structural mechanics of labor markets¹. At a mundane level, this meant significant changes in the relative demand for:

- different kinds of labor (e.g. manual versus analytical)
- different types of skills (e.g. mechanical versus tech-savvy)
- different types of capital (i.e. various types of techniques and technologies used in production)

5.3 TECHNOLOGICAL CHANGE

From an economic perspective, the labor-abundant countries have a comparative advantage in producing labor-intensive goods while the labor-scarce countries have an advantage in producing technology-intensive goods.

Ever since the labor-abundant countries (e.g. India and China) joined the global marketplace the prices of consumer electronics (e.g. DVD players), apparel and the cost of call center operations began to come down. On the flip side this also made global labor demand more price-sensitive.

Trust and responsibility

NNE and Pharmaplan have joined forces to create NNE Pharmaplan, the world's leading engineering and consultancy company focused entirely on the pharma and biotech industries.

Inés Aréizaga Esteva (Spain), 25 years old Education: Chemical Engineer - You have to be proactive and open-minded as a newcomer and make it clear to your colleagues what you are able to cope. The pharmaceutical field is new to me. But busy as they are, most of my colleagues find the time to teach me, and they also trust me. Even though it was a bit hard at first, I can feel over time that I am beginning to be taken seriously and that my contribution is appreciated.



 NNE Pharmaplan is the world's leading engineering and consultancy company focused entirely on the pharma and biotech industries. We employ more than 1500 people worldwide and offer global reach and local knowledge along with our all-encompassing list of services.

 nnepharmaplan.com

nne pharmaplan®

A topic that regularly comes up for discussion is that of the import and export of work. Inasmuch as, globalization has made work into a tradable commodity that is perpetually chasing international price signals, a lot of globally connected businesses are now able to:

- **Import** work that was traditionally considered untradeable (e.g. call center operations, software programming, back office tasks).
- **Export** work which is popularly goes under the labels of outsourcing and off-shoring.

Thanks to information technology, very few sectors can ignore the shifting currents of economic advantage any longer. Even service-sector jobs are no longer immune from offshoring.

Ideally, technological change should be factor-neutral in the sense that it should impact on all factors of production to an equal degree. However, that simple rule does not quite hold in our information age.

The information technologies happen to be quite partial to skilled labor. Consequently, some people may simply be lucky enough to work with technology while others are easily replaced by it. In the economic literature this is known as a skill-biased technological change.

• Note: Skill-biased technological change is a shift in production technology that favors skilled over unskilled labor. This increases the relative productivity of skilled workers thereby increasing their relative demand and wages.

To be sure, the information age has also brought about significant changes in the nature of work. This may be best summed up in terms of three visible trends:

- Virtualization
- Fragmentation
- Casualization

Virtualization refers to a shift from physical work to more mental duties. This suggests that the average worker nowadays is expected to handle more information. By the same token, many are also able to work from home which causes the least bit of disruption to their lifestyle.

However, while not all workers may be lucky enough to benefit from virtualization, it brings clear changes in the organization of work. Most significantly, with the onset of the digital revolution that serves as the backbone of the entire information industry, what has ensued is a **fragmentation** of tasks which can then be distributed to various points of production around the globe.

In effect, fragmentation means:

- intricate divisions of labor within tasks and occupations
- changes in the organizational structure and styles of management
- changes in the demand for occupational skills.

Thanks to the steady advancement of information technology there have also been two further changes in the institutional makeup of work:

- The traditional fixed work contracts have been replaced by more flexible work arrangements.
- Life-long employment policies have also been gradually phased out in favor of temporary work contracts.

This transformation is often referred to as **casualization** inasmuch as labor contracts no longer have the traditional safety clauses that once protected employees against summary dismissal.

Not surprisingly, in recent decades, the developed market economies of the world have seen a tremendous surge in:

- part-time employment
- perma-temps who are locked in a world of temporary jobs
- placement agencies that specialize in matching temporary work with job-seekers

In many ways, these adaptations are the flip side of the stiff barriers that continue to restrict the mobility of humans across national borders. Despite our familiarity with Indian software engineers in Silicon Valley, Central American fruit pickers on the west coast of the U.S. and Filipina maids in the Persian Gulf countries, therefore, the labor markets around the world may still be seen as an unexploited frontier of globalization.

5.4 LABOR MARKETS

When it comes to the globalized labor market, three features readily stand out:

- An enlarged labor supply
- A price-responsive labor demand
- An Enhanced skills premium

The most obvious advantage of globalization is the creation of a huge pool of labor. Advancing technology makes this pool increasingly accessible to business interests. Likewise any economy opening up to foreign trade and investment also makes the demand for labor more price-responsive.

Much of this is because integrated markets make the demand for tradable products more responsive to price changes. In the same fashion, the demand for labor also becomes more sensitive to changes in its cost. This means growing flexibility in:

- wages and benefits (e.g. retirement and pensions)
- labor standards (e.g. working conditions)
- government regulations (e.g. severance pay)

As may be expected, all of these are important facets in the collective push for labor market flexibility.

• Note: Labor market flexibility essentially means that both employers (who buy foreign labor) and consumers (who buy foreign products) are able to substitute foreign workers for domestic workers more easily.



When it comes to labor costs, therefore, the comparative advantage of a nation in global markets depends on:

- The relative price of skilled versus unskilled labor
- The size of the market that the key businesses operates in
- The institutions that govern labor markets (e.g. unions, labor standards etc.)

Since the developing countries tend to rely on an abundance of low-skilled labor in their export industries and do not always have stringent labor standards, they could easily compete against low-skilled labor-intensive production in the advanced nations.

Not surprisingly, most experts discover that an increased exposure to trade with low-income countries widens the skills premium in the advanced countries.

Note: Skill premium is the difference between the wage of skilled labor and that earned by the unskilled. In developed nations it is measured by taking the wage difference between college-educated and those with only a high school degree

Beginning about 1980 the skills premium began to rise in all nations of the OECD; this is widely seen to be due in part to globalization and the ongoing technological change.

5.5 LABOR STANDARDS

Orthodox economic theory maintains that wages and earnings are governed strictly by worker productivity. But since markets are not perfectly competitive as economic theory assumes, there are other factors to consider such as:

- The scope of occupational regulations
- Rules governing the level of unionization
- Rules that relate to the bargaining rights of workers

As may be imagined, the economic value of human labor is closely governed by the political and social institutions of a country. Thus the political history, cultural mores and traditions of a country may be seen to influence the value of human labor as much as if not more than productivity.

All the advanced economies of the world have detailed regulations that govern employment practices. These are primarily meant to set the terms for the:

- Eligibility to work in a country
- Minimum wage standards
- Acceptability of nature of work
- The maximum hours of work
- The mandatory worker benefits
- The conditions of employment
- The Freedom to unionize
- Rules for collective bargaining
- Rules for severance of employment contracts

It is the global depression of the 1930s that brought in elaborate rules and regulations to govern work and labor in the advanced capitalist economies of the world. However, with the speeding up of globalization in recent decades, some of those long held rules have been relaxed or circumvented.

From the point of view of business profitability, the sources of labor overseas often have a distinct advantage over the domestic markets in that:

- They may not be governed by the same type of work rules (e.g. employment of child labor
- They may not have the same rules regarding working conditions (e.g. worker safety or health requirements)
- They may not have the same type of environmental regulations in place (e.g. housing conditions and living standards)

These aberrations offer tremendous cost advantages for multinational corporations since bypassing labor regulations could help to cultivate competitive advantage.

In the extreme case, the labor standards in various countries could easily be pitched into a competitive struggle for attracting business interests and capital investment. This has gained popularity as:

• Note: Regulatory arbitrage is defined as a practice used by firms to circumvent unfavorable regulation. This is often done by restructuring transactions, creative financial engineering and geographical relocation designed to play the regulations or their absence to one's advantage.

A question that arises time and again is whether there should not be common labor standards across the board since work continues to be priced in global markets. But this invariably comes up against the foundational notion of comparative advantage as well as the deeper question of what really constitutes free trade. As yet, there are no easy answers.

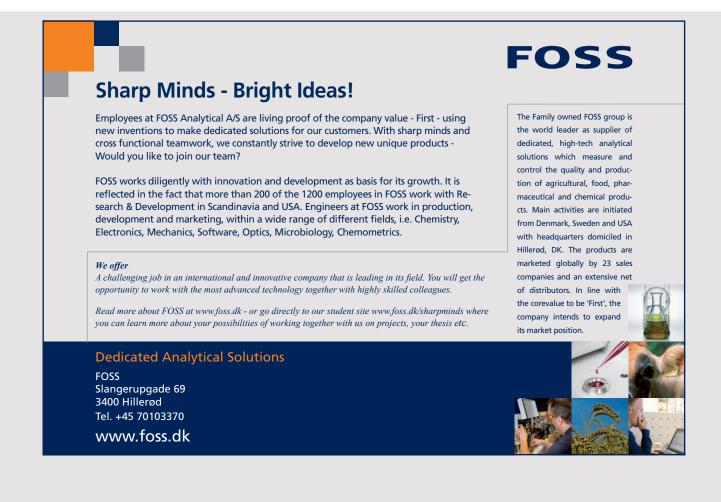
5.6 OCCUPATIONAL TRENDS

As it happens, the significant occupational growth areas today are in healthcare, business management, computing, food service and personal care. This is not an accident since advancing technology continues to direct workers away from traditional manufacturing and into service occupations.

Unfortunately, the salaries for many fast-growing occupations are also lower than those that they are replacing. This is primarily due to:

- increased competition for service sector jobs
- limited opportunities for career advancement in most of service sector jobs

Given that any task that can be encrypted and digitized could easily be shipped overseas means that the service sector jobs are not totally immune from the great advances in technology.



By most accounts there has been a steep loss of clerical jobs in the US since 2007; this is the result of new technologies continuing to replace office workers. The report connects this to falling median household incomes and growing income inequality.

Globally, we could cite many jobs that have been on a declining path. Here is a sample of the clerical jobs on the retrenchment list:

- Bookkeepers (e.g. backoffice bookkeeping and day-to-day accounting)
- Bank tellers being replaced by ATMs and online banking
- Data entry personnel as manual data entry is gradually phased out
- File clerks being replaced by online filing facilities
- Typists being replaced by word processing
- Retail cashiers being replaced by internet shopping and self-checkout systems

Since about mid-1970s, the labor markets in the U.S. and Western Europe have not done so well for lower-skilled and unskilled workers. This problem has manifested itself in several different ways:

- Growing wage premium for skilled workers
- Erosion of real earnings of the low-skilled
- Growing volatility in earnings and hours worked
- Growing economic inequality across skills groups

Overall, neither the US nor Western Europe may be credited with keeping up a steady pace of job creation at decent wages. We could even say that the labor markets in the advanced global economies have been in a troubled state for quite some time and there is every reason to believe there is more turbulence ahead.

5.7 UNEVEN DEVELOPMENTS

As may be gathered thus far, the relationship between globalization and labor is tenuous at best². This is best illustrated by the proliferation of:

- Uneven employment relationships
- Labor market segmentation
- Human trafficking

5.7.1 EMPLOYMENT RELATIONSHIPS

One of the most visible signs of uneven development triggered by globalization is the tilting of domestic manufacturing production in the developed nations away from labor-intensive industries such as apparel toward more professional-intensive industries such as, aircraft.

For low-skilled labor, this type of a shift in direction presents a double whammy:

- a reduction in demand bolstered by global competition
- an increased sensitivity of employers to wage costs due to the ease of substituting labor across national borders

To add to it, the employment relationships are made even more uncertain by the unpredictable fluctuations in the:

- production costs other than labor
- predictability of hours worked
- bargaining power of workers

Among the changing employment relationships brought about by globalization, perhaps the most noticeable is the constant threat of downsizing of businesses in response to the changing winds of global competition. Not surprisingly, the cost of adjusting to the sudden shifts in direction is pushed almost entirely in the direction of the worker.

It seems as though downsizing has become a constant feature of global competition. While clear links may not be established between this structural change and the openness to trade, it is hard to deny that over the last three decades there has been:

- greater inequalities within and across skills categories
- greater instability in wages and employment
- greater competition in product markets
- increased churning in labor markets exerts downward pressure on wages

These speak to the restrictive patterns of wage negotiations precipitated by the trade winds of globalization. Thus wages may very well continue to wobble in competitive markets even in the face of shrinking trade imbalances. Not surprisingly, these only add to the perceptions of growing insecurity for broad sections of the global workforce. While the monetary gains reaped by the professionals and high-skilled may very well outweigh the losses of the non-professional or unskilled workers, it makes for a decidedly uneven economic landscape which does not carry happy portents about out economic future.

It is almost too easy to shrug off all of it as merely due to a skills gap but it has broader implications by way of:

- increasing dispersion of earnings among the low-skilled
- increasing volatility of wages and hours worked which reduce the ability to absorb market shocks
- corroding social harmony and contributing to social pathologies

In the long run, all of these untoward developments could impair the effective demand for goods and services in advanced nations thereby compromising the health and security of the global economy.



WORK AND WAGES

5.7.2 MARKET SEGMENTATION

As it happens, labor markets are quite segmented internationally than might appear at first flush. This accounts for the tremendous wage disparities across national borders. While this may mean comparative advantage for developing nations, segmented markets could easily prove to be a drag on global economic health as well.

The prominent factors behind the segmented labor markets are:

- The restrictive visa policies of the develop nations that prevent workers from poor countries from gaining ready access to their lucrative job markets.
- The preference of the developed world for highly skilled and well-educated workers from abroad which automatically eliminates the poor from the economic race

An added problem with segmented labor markets is the decline in unionization which has been particularly dramatic in the US and the UK. This is largely responsible for the growing wage disparity between the skilled and unskilled in the US and UK over time.

By comparison, unions have remained fairly strong in Western Europe so that the wages of the less skilled have not collapsed so completely. When it comes to the unemployment rate however, the US and UK have fared much better than Western Europe over the last decade or so.

5.7.3 HUMAN TRAFFICKING

The International Labor Organization (ILO), created as a specialized agency of the UN in 1946 notes a sense of desperation in broad swathes of the global population amid an otherwise robust global dynamic. Perhaps the most visible expression of it is human trafficking.

There are two prominent elements that play in human trafficking:

- use of threat or abduction, force, fraud, deception or coercion to recruit, transport and transfer persons across national borders
- unlawful payments extracted with the promise of a better life
- clear intent of unlawful exploitation of those who are vulnerable.

The ILO estimates that at any point in time there are around three out of every 1000 persons worldwide who are either involved in forced labor or subjected to human trafficking³.

Oftentimes innocuous job advertisements lure the vulnerable to the lair of unscrupulous traffickers. The root causes of this problem are:

- Abysmal poverty in various parts of the world made worse by growing populations
- Absence of plentiful employment opportunities in developing countries
- Inefficient labor migration networks throughout global markets

Inasmuch as improved modes of transportation and communication have made possible a shrinking world, it should be expected that these also create greater chances of migration, both voluntary and coerced.

The ILO contends that human trafficking is a hugely profitable business and expects it to thrive so long as there remains:

- Stubborn pockets of poverty untouched by bigger policy shifts
- Disintegrating communities and support networks that create social redundancy
- Broad swathes of homeless people across the world

While human trafficking may border on slavery it would be a mistake to think of it simply as an outcome of globalization. Instead it is an integral part of the globalization process itself. This is largely due to

- the overt push for integrated labor markets
- accepted disruptions to settled lives and livelihoods
- proliferation of workshops and factories in developing countries that serve as newer avenues of exploitation for displaced labor

We should therefore agree that the push to integrate labor markets worldwide is not without steep costs, the impact of which is not always balanced or even. Ironically, the internet that serves as an iconic symbol of globalization works incredibly well in facilitating and furthering the exploitation and trafficking of individuals.

As is gradually becoming clear, the internet could be used not just for sharing information but as:

- A prized tool of misinformation or disinformation
- A great tool of recruitment for purposes of economic exploitation

Clearly, the existing barriers to migration worsen the problem of exploitation of labor but very few free trade advocates would go so far as to propose a complete elimination of all barriers to migration in the name of economic freedom.

This is not only because the carefully cultivated strategies of comparative advantages might be lost in the process but also that it would also fritter away the chances of economic development for a nation that wishes to advance through globalized markets.

5.8 RACE TO THE BOTTOM

The race-to-the-bottom argument is heard a lot these days. It refers to the notion that workers in the North (affluent nations) have to give in to labor standards that are low enough to prevent employers and capital to take flight in favor of the South (developing nations).

One of the key problems with globalization is that:

- the benefits may be huge but diffuse (e.g. lower prices for foreign imports)
- the costs, arguably smaller by comparison, are relatively concentrated (e.g. cheaper imports displacing domestic production and workers)



Low-speed Engines Medium-speed Engines Turbochargers Propellers Propulsion Packages PrimeServ

The design of eco-friendly marine power and propulsion solutions is crucial for MAN Diesel & Turbo. Power competencies are offered with the world's largest engine programme – having outputs spanning from 450 to 87,220 kW per engine. Get up front! Find out more at www.mandieselturbo.com

Engineering the Future – since 1758.





Consequently, the losses from globalization may be more acute than the gains from it. More often than not, the losses are almost imperceptible as:

- a gradual watering down of labor standards
- a gradual erosion of pay and benefits
- a slow easing up of firm labor contracts

The truth of the matter is, nations that wish to maintain higher labor standards can simply maintain them at a higher cost irrespective of what their trading partners are doing in the world. Nevertheless, given the price-sensitive nature of labor demand noted earlier, any attempt to raise labor standards usually risks steep job losses.

This is not to say that there are no clever modes of adapting to the higher cost. Consider for instance:

- Using currency devaluation which can reduce domestic costs thereby improving competitiveness
- Adjusting wages downward as compensation for staying with higher standards than elsewhere
- Letting taxes in the country go up so as to pay for the cost of higher labor standards

Most noticeably, none of these promise long-term economic betterment for a majority of the citizenry. In the end, anything having to do with the condition of labor or the mobility of capital has to be addressed from a collective viewpoint. Unfortunately, globalization also makes it increasingly hard for workers to force others in society to bear a fair share of their economic cost of adjustment.

One might even say that globalization tends to blur the idea of collective purpose. Whether it be through currency devaluation, taxation or wage cuts, it is very likely that the workers ultimately are forced to bear the brunt of the costs of adjustment. Ironically, the more responsive the demand for labor to global market forces, easier it is for employers to unburden a whole host of costs in the direction of the workers. This is the crux of the race-to-the bottom argument (see Rodrik 2011).

WORK AND WAGES

5.9 **RESHORING**

Back in the 1990s activists worldwide sharply protested actions by the World Bank and International Monetary Fund for all the economic imbalances that had resulted in the wake of globalization. The fear was all too palpable back then about:

- Steep losses of manufacturing jobs in the developed world
- an imminent dismantling of the middle class.

Encouragingly enough, the tide appears to be turning of late. Thus some segments of manufacturing, admittedly the upper end of highly technology-incentive processes, have begun to gradually come back on shore, in both the UK and the US.

American corporations that once offshored manufacturing to China, a process that went on for two long decades, have slowly begun to bring jobs home. Most notable in that group are Apple, Motorola, General Electric and Ford.

It may well be that globalization has advanced to the point that the cost of labor between the developed nations and some emerging markets has begun to converge. Evidently, the outsourcing destinations of yesteryears are not cheaper any more so that with the erosion of cost advantage, the companies are slowly coming back home.

In many industries, including computers and electronics, machinery, appliances, electrical equipment and furniture, the cost of manufacturing in certain parts of America exclusively for the American market is much the same as producing in China⁴. This calculation is based on:

- **Direct cost** of labor, property and transport
- Indirect cost of supply-chain risks (due to geopolitical uncertainties)

It is also said that the labor markets overseas may be getting overstretched in the sense that:

- the overseas supply of high-quality labor may be just about exhausted (e.g. in China).
- the pay for senior management for several emerging markets (e.g. China, Turkey and Brazil) either matches or has begun to exceed that in America and Europe.

There is also something to be said about geographical proximity. These days, Mexico is proving to be an attractive destination for a lot of foreign businesses. Chrysler has begun to use Mexico as a base for shipping cars to Southeast Asia while the country is also turning out to be a hub for the aerospace industry.

Furthermore, the proximity of Mexico to the giant markets in Canada and the U.S. provides a huge advantage in terms of having to deal with fewer uncertainties or interruptions to the supply chains.

Thus the factors that have begun to help with onshoring or reshoring of jobs⁵ in the U.S. as well may be seen as:

- Rising labor costs and overstretched skilled labor markets overseas
- Malleable labor (e.g. ease of wage-setting, hiring and firing decisions) due to prolonged periods of high unemployment
- Transportation costs have begun to rise, making the cost of extending the global reach of production less attractive
- Steadily falling price of energy due to discovery of new sources
- Advent of new technology (e.g. robotics) that promises to substantially reduce the use human labor in production processes

On a not so attractive note, high unemployment over an extended period also makes the labor force more flexible so that higher productivity can be extracted at lower pay. This is especially true in the southern part of the U.S. where union presence is rather weak and the labor force is more malleable to the terms of employment.



These days, while labor cost may have come under control, the cost of shipping has become one of the most serious impediments to globalized production. This is due to:

- the problem of rising customs duties and other fees
- tying up enormous amounts of time in shipping over huge distances and unwanted time lag between manufacturing and design
- Inevitable delays in introducing useful innovations and improvements in production

A more recent advantage for the U.S. in reshoring has to do with the falling price of energy. The successful extraction of shale gas has made a large contribution toward lowering the price of energy significantly which has begun to drive down the cost of manufacturing in the U.S. substantially.

It is expected that over the long term, reshoring will also receive a huge boost from advanced manufacturing techniques bringing in far less labor-intensive processes. The two most visible features of this transformation are:

- 3-D printing
- Robotics

The cutting-edge method of 3-D printing allows individual machines to build products by simply depositing layer upon layer of material instead of having to assemble components from scratch. This highly innovative process is already being used across research departments and factories.

One day, it is hoped, 3-D printing might even completely replace assembly by hand (e.g. 3-D printed lighting for interactive toys as are being developed by Disney). Nonetheless, this could also be seen as an advancing process by which the skills of labor are simplified even further.

The same may be said about robotics, thanks to which, the share of labor in the total cost of production is also falling steeply. Being cheaper, user-friendly and very predictable, robots are fast being adopted by factories all around the world.

Given that the cost of robots does not vary too much irrespective of whether they are used in America or in China, there is an obvious attraction to using them. This coupled with the fact that the cost of a robot has also fallen 40 to 50% in many advanced economies since the 1990s, along with robots becoming both safe and simple, the need for skilled labor in manufacturing may also not be as critical in future.

WORK AND WAGES

5.10 GLOBAL OUTLOOK

Evidently, broad segments of the global labor market seem to be trapped in a very uneven and fragile situation. In many ways the U.S. economy is representative of the economic stress lines that are increasingly becoming visible worldwide:

- routine transaction and production jobs that may be scripted and automated continue to disappear
- mismatches in skills and education between workers and jobs continue to grow

These factors are contributing to jobless economic recoveries and sluggish recessions. The situation is made worse by other signs of imbalance:

- The pace of job creation continues to fall short of the growth in jobseekers
- A serious delinking of productivity and wages that leads to stagnant earnings
- Significant increase in vulnerable employment, self-employment and informal employment
- A progressive lengthening of unemployment spells eroding employment prospects
- Growing numbers of discouraged workers leaving the labor force
- A growing incidence of youth unemployment which threatens social order

The ILO examines labor issues around the world with a special focus on social justice. The organization aims to:

- Promote labor rights at work
- Encourage decent employment opportunities
- Enhance social protection for labor
- Strengthen dialog on work-related issues

According to the ILO, the global economy needs more than 42 million jobs each year to meet the growing number of new entrants into the labor market. However, lately the global economy has been able to create only 40 million new jobs every year.

Consequently, the incidence of unemployment is likely to remain high, especially in the East Asian and South Asian regions which together represent close to half of the additional jobseekers. A particular problem is youth unemployment which continues to be almost three times as high as the adult unemployment rate.

The youth-to-adult unemployment has reached a historic high in the Middle East and North Africa as well as in parts of the Caribbean and Southern Europe. This could prove to be hugely disruptive of social order in the long run.

The two most visible stress signs on the global front are that:

- small scale enterprises are continuing to find it difficult to access credit since the 2008 crisis
- there may still be too many uncertainties that are likely to impede hiring decisions for years to come
- productivity gains translate into tangible wages at a very slow pace
- technological advancement has been extremely effective in combining expanding markets with an improved ability to hold down wages
- little is being done to prevent a reemergence of financial bubbles

Thus it is not surprising that globally there is:

- A failure to check the growing incidence of working poverty
- A failure to check the expanding scale of informal jobs and undeclared work

Technical training on WHAT you need, WHEN you need it

At IDC Technologies we can tailor our technical and engineering training workshops to suit your needs. We have extensive experience in training technical and engineering staff and have trained people in organisations such as General Motors, Shell, Siemens, BHP and Honeywell to name a few.

Our onsite training is cost effective, convenient and completely customisable to the technical and engineering areas you want covered. Our workshops are all comprehensive hands-on learning experiences with ample time given to practical sessions and demonstrations. We communicate well to ensure that workshop content and timing match the knowledge, skills, and abilities of the participants.

We run onsite training all year round and hold the workshops on your premises or a venue of your choice for your convenience.

For a no obligation proposal, contact us today at training@idc-online.com or visit our website for more information: www.idc-online.com/onsite/

TECHNOLOGIES

OIL & GAS

ENGINEERING

ELECTRONICS

MECHANICAL

ENGINEERING

INDUSTRIAL

DATA COMMS

ELECTRICAL

POWER

AUTOMATION &

PROCESS CONTROL

Phone: +61 8 9321 1702 Email: training@idc-online.com Website: www.idc-online.com

Even in the advanced nations, working poverty remains a serious problem since even working full time at low wage jobs does not create enough of a living wage. Consider for instance that low-wage workers at Walmart, the biggest employer in the U.S. if not the world, qualify for public assistance, that ranges from food stamps and Medicaid to subsidized housing⁶.

The significant increase worldwide in vulnerable employment or self-employment should be cause enough for alarm. With informal employment being widespread in most developing countries it is increasingly difficult to combat poverty, especially in developing nations.

In addition, the total absence or a steady weakening of protective social safety nets continues the make the situation worse. The growing problem of discouraged workers is only a symptom of a deeper malaise.

In the case of the advanced nations, so long as recovery remains weak, the average unemployment spell continues to last longer. This is especially true of the recent crisis areas in the eurozone (e.g. Greece, Portugal and Spain).

Weak job creation over the long term could easily short-circuit the globalization dynamic by:

- draining the public purse thereby contributing to higher fiscal deficits
- promoting a loss of skills on the part of the unemployed which dims their employment prospects further

These are indeed disturbing portents that explain why the ILO fears that the global economy may be on an uncertain footing that promises lackluster performance for the foreseeable future.

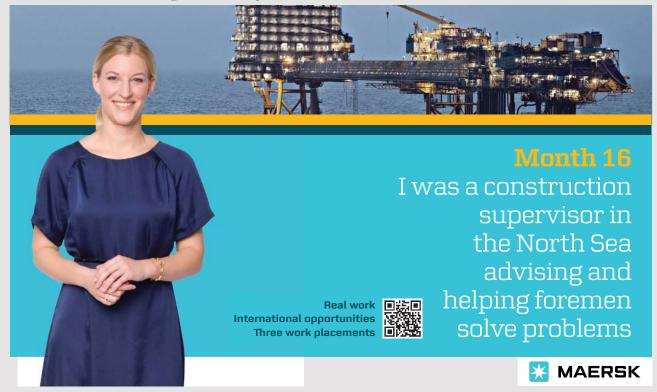
Questions

- 1. Explain why some economists consider the labor market to be the last unexplored frontier of globalization. Why do policymakers refuse to fully integrate labor markets?
- 2. What is skill-biased technological change? What does it have to do with the growing incidence of inequality in the developed world?
- 3. The visible inequality in income that has greeted most of the industrialized nations of the world may not be exclusively due to globalization. Do you agree? Why or why not?
- 4. Could we say that when it comes to market integration capital has a distinct advantage over labor? Why or why not?
- 5. Why is it that labor in the developed nations of the world is reluctant to embrace globalization? Cite at least three valid reasons.

- 6. It is often said that globalization allows businesses to play regulatory arbitrage in the sense of playing the different regulatory environments across countries to their advantage. Could the same be said about labor standards? Why or why not?
- 7. What are the reasons behind the recent signs of the reshoring of jobs into the U.S.? Are these only temporary changes or likely to last for a long time?
- 8. Explain how technology can play on both sides of the labor market in the sense of creating jobs as well as destroying them. Can globalization be expected to strike a meaningful balance between the two forces? Why or why not?
- 9. Why does the ILO consider the global outlook on unemployment to be so gloomy? Are these connected to the structural changes brought about by technological progress?
- 10. Is there some kind of connection between globalization and wage stagnation that most commentators find to be detrimental to the health of labor in most market economies? Explain.



The Graduate Programme for Engineers and Geoscientists www.discovermitas.com



6 FINANCE AND INVESTMENT

6.1 INTRODUCTION

Finance and investment are two different entities altogether. In general, finance involves raising funds to start and operate a business but often it also refers to a complex relationship between the owners of a business (e.g. stockholders) and its lenders (e.g. banks).

Thus financing activity could involve:

- Floating new stocks
- paying dividends on existing shares
- issuing new securities (bonds)
- repaying debt to banks and other creditors

In contrast, investment involves the actual enlargement of the scale and scope of business interests. This involves buying and selling of business assets as well as making and collecting loans.

For the most part, finance is the mechanism by which the surplus savings generated in an economy is channeled toward profitable investment opportunities. However, on the global front, finance is by far the most important facilitator. It is the engine that drives the global economy so that the more flexible and responsive a financial system, the better an economy is able to function over time.

As we noted earlier, in recent decades financial globalization has proceeded at a much faster pace than trade globalization. This is not least because money is able to flit around the globe at much greater speeds than ever before.

This chapter deals with the crucial links between finance and investment, the nature of integrated financial markets, the nature of global investments, the benefits and risks in the dynamics of globalization and the ongoing challenges it presents.

6.2 GLOBALIZED FINANCE

Once upon a time, a manufacturer building a new factory would be restricted to borrowing from a domestic bank. These days there are many more options available. The manufacturer can shop around the world for:

- better interest rates at which to borrow
- borrow in a foreign currency if that is more advantageous
- issue stocks or bonds in either domestic or international markets
- buy financial contracts at home or abroad to hedge against possible investment risks

As we noted in section 2.6, financialization is a key feature of globally integrated markets.

• Note: Financialization refers to the growth in the size and importance of a country's financial sector as a share of the overall GDP. It indicates the prominence of financial markets and institutions in the global economy.

There are various forces behind the globalization of finance. The IMF identifies four primary factors¹:

- advances in information and computer technologies
- production, consumption and investment activities skipping national boundaries
- liberalization of national financial and capital markets (e.g. relaxation of regulation)
- increased competition among providers of financial services (e.g. hedge funds)

While the facilities for collecting and processing information have improved tremendously, there have been vast improvements in the ways to measure, monitor and manage financial risk as well.

The enhanced ability of market players to price and trade complex financial instruments (e.g. derivatives) has meant a surge in financial innovations that has in turn caused a tremendous growth in cross-border movements in financial capital.

As a result of all these innovative changes, the structure of global capital markets has undergone dramatic transformations. It is well worthwhile to ponder the following:

- Old fashioned bank loans and deposits have been replaced by tradable securities.
- There is greater competition from nonbank financial institutions (e.g. pension funds)
- Relaxed regulatory barriers now allow commercial banks to diversify revenue sources (e.g. take up investment banking activities, asset management and insurance)

All of this has meant a definite shift away from industrial capitalism to financial capitalism for most market economies of the world. Since the 1980s, the U.S. has been at the forefront of the financialization of the advanced economies. This has brought about significant growth in:

- Both commercial and investment banking
- financial asset management the global investor
- personal and institutional insurance services
- venture capital availability (e.g. for business startups)

While the developed nations of the world have long been stalwart supporters of financial integration, the developing countries have begun to open up their financial systems to global interests only since the 1990s. The outcome has been a tremendous increase in cross-border linkages in the international investment positions of prominent global investors².

Unfortunately, with financial markets becoming more competitive, the profit margins of conventional banks have been squeezed considerably. As a result the commercial banks have been forced to look for alternative sources of revenue and to diversify their investment holdings.

This has led to a wave of consolidations in the financial industry. Although there has been relatively little consolidation of financial institutions in continental Europe, a lot of banks in North America and the UK have been very successful in:

- merging with other banks
- merging with securities and insurance firms (e.g. Citigroup)

This has made the emerging institutions big enough to compete in global markets, permitting both economies of scale and improved market shares. Going by asset size, China dominates the list of the biggest 25 banks around the globe followed by the U.S. and the U.K.

This in itself is a testimony to China's vigorous economic growth over the last decade and robust trading position in the global marketplace.

6.3 FINANCIAL MARKETS

Financial markets are where buyers and sellers come together to trade financial assets such as stocks, bonds, commodities, derivatives (e.g. options and futures) and currencies. These are of tremendous importance when it comes to:

- setting prices and interest rates for global trade
- raising financial capital for short and long term needs of businesses
- transferring liquidity from net savers to net investors in global markets
- transferring risk from the risk-averse to those who are risk-takers

The two most commonly used segments of financial markets are the money market and the capital market.



6.3.1 MONEY MARKET

Money markets deal with assets that have maturities of up to one year. The choice assets in this category are:

- U.S. Treasury bills (e.g. with 3-month or 6-month maturities)
- negotiable certificates of deposit that may be traded in secondary markets
- repurchase agreements (backed by securities) offered by banks and other financial institutions
- collateral loans and short term bills of exchange

The institutions that regularly operate in money markets are central banks, commercial banks and other financial institutions.

Given the short-term characteristics of the money market assets, they are ideal as a temporary place to park one's funds. The two key advantages of money markets are:

- Liquidity: money market assets could be readily converted into cash.
- Safety: money market assets tend to be relatively safe

The availability of money market assets helps with the operating expenses of businesses and providing working capital both to companies as well as the government.

Often enough older individuals living on fixed incomes rely on money market funds just because of the safety associated with these types of investments along with ready liquidity (i.e. convertibility into cash).

However, money market funds are not appropriate when it comes to undertaking long term projects or making capital improvements. For that we need to look at capital markets.

6.3.2 CAPITAL MARKETS

Capital markets deal with long term assets that last for more than a year. In the dynamics of globalization, they play a critical role in directing a whole range of investment decisions such as:

- setting up businesses with other people's money
- turning creative ideas of bright individuals into lucrative businesses
- smoothing out expenditures over time
- enabling individuals and businesses to cope with risk and uncertainty over time
- securing insurance for both person and property

The size of the capital markets in a nation is directly related to the:

- Size of the national economy.
- Available infrastructure, resource availability and workforce skills
- Local business climate
- Regulatory environment
- Degree of political and economic stability
- Openness to regional and international trade

As we noted in chapter 1, globalization relies on integrated markets in labor, resources and finance. Economists generally agree that open capital markets help with:

- Optimal resource allocation across nations
- Optimizing market decisions over time
- Enabling international investors with portfolio diversification
- Imposing discipline on policy makers through price signals (e.g. interest rates)

Capital markets are an effective conduit for channeling the wealth of net savers to those who need investible funds for long-term productive use.

The suppliers of financial capital in the global markets are:

- **Retail** investors (e.g. individuals)
- Institutional investors (e.g. pension funds and mutual funds)

In contrast, the demanders in the capital markets are usually:

- Municipalities and other governments
- Companies and organizations
- Banks and financial institutions

As may be expected, the suppliers of financial capital seek the maximum possible return for their money at lowest possible risk while the users of their funds seek to raise capital at the lowest possible cost.

6.4 INTERNATIONAL INVESTMENT

Over the past several decades foreign investment has grown at a significantly more rapid pace compared to either global trade or even global production. International investment happens to be a very powerful force as it involves expenditures on capital goods like tractors and machinery, as well as infrastructure (e.g. roadways and power plants) and superstructures (e.g. convention centers). These are all directed toward productive capacity thereby helping to enlarge it for the future.

Investment initiatives are very important in bringing about closer economic integration in the world. This is because investments are capable of altering entire methods of production through the:

- Transfers of knowledge
- Transfer of technology
- Dissemination of management techniques



As productive capacities are enhanced all around, living standards are expected to improve as well. There is therefore good reason for supporting companies that choose to invest overseas. Thus corporate foreign investments are fueled by a need for:

- **Bigger markets**: Seeking to expand markets in general (due to saturated domestic markets or gaining a competitive edge overseas)
- Large resource pools: a foreign facility or subsidiary of a company may have easier access to the needed resources for production

In addition, there are several avenues for making clear efficiency gains for businesses. Three possibilities readily come to mind:

- Network efficiency: global markets open up possibilities for establishing new distribution networks and lucrative supply chain arrangements.
- **Trading efficiency**: MNCs often seek to reorganize production so as to take full advantage of changing trade agreements or currency changes that would open up newer opportunities for competitive advantage
- **Fiscal and regulatory efficiency:** MNCs are very effective at playing off one set of national regulations against another while minimizing their tax obligations (e.g. Burger King moving to Canada³)

Not surprisingly, international investment flows have reached levels not seen any time before. This phenomenal growth has been helped by several factors:

- Technological advancement: telecommunications and information technology
- Emerging markets: fast growing economies in East and Southeast Asia promised higher returns for global investors
- Economic reorientation: many developing nations committed to socialist planning models switched to the market economy model
- Financial liberalization: lifting of limits on foreign investments or on foreign currency holdings and exchange

6.5 UNEVEN LANDSCAPE

These days, the financial choices available to investors around the globe involve foreign assets and liabilities which in the common parlance of economists is referred to as portfolio diversification. Since not all investments are of the same duration nor are they intended to serve the same purpose, the globalization of financial markets cannot avoid being most uneven. While a bulk of the global foreign direct investment takes place among developed countries. However, the financial crisis of 2008 may have changed that configuration somewhat since the direction of the flows seems to have reversed.

According to a 2013 report from the United Nations Conference on Trade and Development (UNCTAD), the developing countries received more foreign investment inflows than the developed world in the years following the last crisis. By comparison, Sub-Saharan Africa actually lost a good share of the global investment during the same period. This presents a very uneven picture when it comes to global investment flows.

As it happens, different areas of the globe have typically depended on different sources of investment. The global capital flow patterns over the last decade show that:

- Latin American nations, the Middle East and Europe depended most heavily on foreign portfolio investment
- Asian nations received most of their investment from foreign direct investment.

As may be expected, the factors that influence investment decisions are intimately connected not only to the economic outlook of a country but also to the economic policy environment within. When it comes to foreign direct investment, prospectors tend to look at:

- The rules and regulations that apply to foreign investors compared to nationals
- The infrastructure of local markets when it comes to functional efficiency
- Commitment of local governments to promoting a business-friendly environment
- Trade policy and property rights
- Restrictions on repatriation of earnings from investments

Since direct investment is often about gaining a controlling stake in a business and usually involves direct ownership of physical assets, it cannot be liquidated at the drop of a hat. In contrast, portfolio investments that deal with stocks and bonds and other creative financial instruments could be promptly liquidated (see section 2.6).

As much as effective international linkages call for establishing smooth channels for the flow of goods and resources across national borders, it inevitably creates tensions among competing interests.

6.5.1 NECESSARY COSTS

A big barrier to international investment happens to be transaction costs. After all, investing overseas involves a lot of uncertainties that call for a lot of specialized research ahead of time and these do not come cheap. Besides, the cost of intermediary services (e.g. brokerage commissions) and other associated costs need to be factored into returns as well.

The cost of hiring analysts and researchers with familiarity with the destination markets and having the necessary accounting expertise to wade through reams of foreign financial statements and administrative hurdles could be quite formidable. In addition, there are additional costs that cannot be avoided such as:

- stamp duty
- trading fees
- local taxes
- exchange fees
- transaction levy

After these fees have been cleared there is the additional fear of risks associated with investing in another country. This is because the market value of investments can change dramatically in the global arena.



6.5.2 UNAVOIDABLE RISK

With the main attraction of international investments being the diversification of one's portfolio, a diversified financial portfolio is expected to reduce the overall risk of one's investments.

The experts generally divide the risks associated with global investing into:

- Portfolio risk
- Currency risk
- Liquidity risk

The first of these could be reduced through diversification in the sense that if one's money is invested in a broad range of financial assets then the overall risk of the portfolio may be reduced substantially.

By comparison, currency risk arises due to currency volatility. For instance, when investing in a foreign market, one has to exchange the funds from the domestic currency to a foreign currency at the going exchange rate. However, there is no guarantee that the exchange rate is going to stay the same over an extended period of time.

Let's say that an American investor expects a return of 8% a year on some investment in Europe denominated in the euro. If the value of the euro depreciates by 2% in a year then the net return on that investment must be 6%. On the other hand, if the euro appreciates in a year then the effective return could be much higher.

Hence it is not surprising that a lot of investors choose to hedge currency risk using tools such as

- currency **futures** or forward contracts (standard or customized contract between two parties to buy or sell currency
- **options** (paying for an option to buy currency at a specified price on a future date)

Needless to say, these instruments prove to be too complex for the average investor. For the faint-hearted there is the opportunity to buy ETFs (Exchange Traded Funds) which are readily accessible and relatively liquid.

• Note: Exchange Traded Fund (ETF) operates with the goal of achieving the same return as a particular stock market index. These funds are increasingly popular with investors and are listed on stock exchanges around the globe.

This brings us to the question of liquidity risk which involves the ease of converting one's stocks or other financial assets quickly into cash. Often enough, foreign investments may carry substantial liquidity risks which may cause investors to turn tail and return to safe grounds.

As may have been gathered by now, trying to minimize risk by linking up the stock markets around the globe does not always produce the desired result. Often enough, it resembles creating a giant casino that contributes to:

- a pyramid of promises stretching out over space and time
- the already very complex structure and mechanics of global finance.

Therefore, anytime something goes wrong somewhere in the intricate network of finance, there could be devastating consequences rippling across the entire global economy. Very few nations ordinarily have the resources to handle the fallout effectively.

6.5.3 NATIONAL BANKRUPTCY

We got an earlier glimpse of this scary problem in section 2.9. It is however serious enough to be looked at again.

On the face of things, since national governments possess both the power to tax and the power to print money, they are a much better risk than private borrowers. Nonetheless, sovereign nations can default on their loans now and again which can easily create a nightmare scenario for global creditors.

Prominent economists Carmen Reinhart and Kenneth Rogoff have taken log of all the sovereign defaults from 1800 until the early 2000s in their treatise, *This Time It's Different*. They count 250 instances of sovereign defaults in 200 years which works out to an average of a little more than one crisis every year.

In the 1980s many governments of developing countries defaulted on their debt, a prime example being Mexico in 1982. More recently, Greece defaulted in 2012 on euro-denominated bonds that were held by banks and other investors. By the looks of it the trouble with creditors is not over for Greece⁴.

While nations may not go to war anymore over unpaid debt, the options that are open to find a way out are often limited to:

- · loaning emergency funds to the distressed nations subject to stringent conditions
- imposing austerity measures to bring the defaulting nations back in line
- restructuring debt repayment plans according to an agreed schedule

6.6 MAJOR PLAYERS

Over the last two decades four influential groups of investors appeared on the global scene who benefited the most from integrated global markets. They are:

- Major oil exporters with significant stashes of international reserve currencies
- Sovereign wealth funds (e.g. national investment funds of export-surplus nations)
- Hedge funds (usually private investment partnerships that invest in specialized assets)
- Private equity groups (i.e. investors who directly invest into private companies or conduct of public companies)

Before the financial crisis of 2008, all of the above qualified as significant power brokers with considerable influence in global financial markets. By comparison, pension funds, mutual funds and private endowments are not so significant as global players.

For the oil-producing countries a large portion of the revenues generated from exporting oil may be channeled into areas not related to oil. This diversifies the associated risk. In contrast, a sovereign wealth fund may be best described as a state-owned pool of money that may be invested in a variety of financial assets.



The sovereign funds arise out of:

- A nation's budget surplus, i.e. tax revenues generated over and above government spending
- revenues generated from exports or accumulated through a trade surplus
- foreign exchange reserves accumulated by a country's central bank

Being state owned, a sovereign fund also has fewer restrictions on finding investment outlets. A sovereign fund may invest in real assets as well as financial assets. In fact there is a whole range of assets into which such a fund may be directed. The following are popular choices:

- corporate stocks or equity
- corporate and government bonds
- real estate (e.g. buildings and ports)
- precious metals
- private equity funds
- hedge funds.

Among the other major players, a hedge fund is a limited partnership of investors that usually possesses the following characteristics:

- open to only a limited number of investors
- requires a very large initial minimum investment
- engage in high risk investment strategies for large gains
- investments are quite illiquid with restrictions on time commitment

Hedge funds typically engage in risky investment strategies in both domestic and international markets. The select strategies involve

- using leverage (i.e. borrowed funds)
- taking up long position (i.e. to buy an asset in future)
- taking up short position (i.e. to sell an asset in future)
- derivative positions (e.g. options and futures).

The last on our list of major players in global market are private equity groups. Private equity refers to equity capital that is not quoted on a public exchange (e.g. the New York Stock Exchange).

More often than not, private equity involves institutional investors and other large private investors who can commit huge sums of money for extended periods of time. Private equity groups tend to

- make direct investments into private companies
- conduct buyouts of public companies thereby taking them private (i.e. delisting from public equity).

These investments may be used to fund new technologies, expand existing businesses, make new acquisitions, strengthen the balance sheet of a company or take a distressed company private with the intention of turning it around. The size of the private equity market has grown steadily since the 1970s.

6.7 ECONOMIC BUBBLES

As we have noted earlier, global finance is all about matching up savers with investors. When global investment demand skips ahead of the amount of savings globally available then there is a veritable boom in financial markets. In contrast, when savings exceeds investment it might set off economic forces in a somewhat unsavory direction.

Since the U.S. is the world's largest economy, it has both the biggest and deepest capital markets. However, with the capital markets becoming increasingly integrated, no market economy is totally immune from global turbulence.

Often enough, when an economy is trying to get out of an economic slump a central bank might:

- lower interest rates to make overall borrowing easier
- try to stimulate growth through massive injections of new money (e.g. by buying government securities).

After the financial crisis 2008 this is exactly what happened; the world's major central banks engaged in a multi-year campaign to hold down interest rates along with engaging in bouts of quantitative easing (i.e. injecting money into the system). These were meant to ease up frozen credit lines and make borrowing easier all around but could well have helped with a renewed drive toward risky assets, rampant speculation and strategic gaming.

6.7.1 RISKY ASSETS

The conventional investment outlets (e.g. new business ventures, real estate) do not always offer attractive returns to investors. Hence the attraction of risky assets (e.g. stocks and other speculative assets) that promise higher returns. This creates the possibility of a speculative bubble.

• Note: Speculative bubble refers to a spike in asset values within a particular industry, commodity or type of asset.

A speculative bubble has a tendency to feed upon itself inasmuch as exaggerated expectations of future growth or other events trigger an increase in asset values. This in turn confirms the bloated expectations thereby attracting more buyers who force prices even higher. Naturally, the resulting inflation in prices eventually runs afoul of the economic fundamentals which makes a burst imminent.



There are two examples from recent history that illustrate the problem beautifully:

- In the 1980s a spectacular real estate bubble burst in Japan ushered in a prolonged period of economic stagnation.
- In 2008 the bursting of the US housing bubble triggered enormous wealth destruction on a global basis, paving the road to the Great Stagnation.

In our present day financial markets, speculation is rife as lucrative bets on exotic financial assets continue to proliferate. This is likely to continue unabated so long as global interest rates remain low and regulators choose to overlook the excesses.

6.7.2 CURRENCY SPECULATION

Currency transactions fall into two different areas:

- **primary exchange market**: directly related to trade and investment involving the exchange of real goods and services.
- secondary exchange market: a speculative market tied to shifting prices in global markets

Not surprisingly, the secondary market (i.e. a resale market for securities) is much bigger than the primary market (i.e. a market for newly issued securities) both in terms of size and volume of trade.

Currency speculation is all about buying a foreign currency, not because someone needs to pay for an import or plans to invest in a foreign business but because of hopes to sell the currency at a higher rate in the near future. The trick of speculation is to buy low and sell high thereby making as much profit as possible in the shortest possible time.

Of course some currency speculation is a necessary part of international trade so long as there is a need to:

- Pay for imports and build up a reserve from exports
- Actively raise money for foreign direct investment

Most experts maintain that currency speculation generally works to benefit exporters, importers and investors. This is by making it easy for traders and investors to buy and sell foreign exchange as needed which in turn helps with market liquidity.

Thus it should come as no surprise that the turnover in foreign exchange continues to rise on a fast clip so that the ratio of yearly foreign exchange market turnover to merchandise exports which was in the teens in the late 1970s climbed to about 50 in the 1980s and has doubled again since.

6.7.3 STRATEGIC GAMING

The trouble with speculation is that it is basically a guessing game about the appreciation or depreciation in the valuation of commodities, financial contracts and currency. Consequently, the speculator must always be on guard to minimize exposure or risk.

This means developing clever tactical strategies for outmaneuvering the market. Unfortunately, the strategies adopted for that purpose, no matter how sophisticated, often involve:

- Acting on biased information
- Relying on a "herd" instinct to follow leading speculators
- Using "forward exchange" markets that guide future actions (e.g. enter contract to sell a particular commodity or currency at an agreed upon price at a future date)

It is often a combination of the herd instinct and self-fulfilling prophecies that sets the stage for a financial crisis. Given that market players may not always get it right, they might inadvertently trigger a panic in a mad rush to get out of the door.

Even seasoned strategists may sometimes be spooked by subtle changes in the economic environment such as:

- Signs of increased government regulation in the making
- Tougher environmental standards coming down the pike
- Early signs of opposition from organized labor (e.g. unions)

When an artificial bubble eventually bursts most short-term investors are wiped out so that the market can return to more realistic economic values. While gaming strategies may not be the primary cause of an economic melt-down, they could make financial markets especially prone to crises and turn a small problem into a giant catastrophe.

This makes it all too tempting to suggest that in order to avoid these unsettling possibilities, the developing nations in the emerging markets should avoid getting short-term capital altogether (e.g. portfolio investment). However, that in turn would:

- hurt the prospects of getting funds for good long-term investments
- limit investment opportunities for all investors while heightening the risk

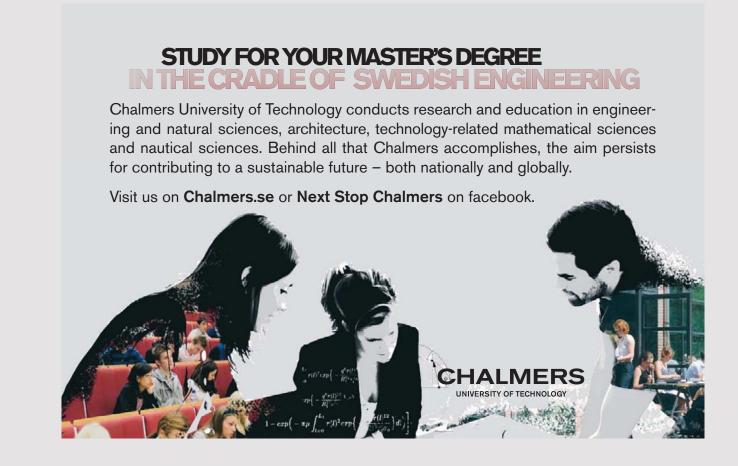
We have to remember that capitalist systems ride on financial gambles which cannot easily be separated from the chance of producing a higher standard of living for the best part of the citizenry.

Thus businesses will always need ready access to funds to smooth out cash flow problems but without a well-functioning capital market none of it is possible. Consequently, countries that are aspiring to develop must do everything in their power to keep the channels of credit and capital flows open.

This may make them more vulnerable to market swings than they realize but then again, intelligent plans must always be ready on hand to prevent these possibilities which calls for considerable international cooperation and sensible direction.

6.8 SECULAR STAGNATION

Since the financial crisis of 2008 and the onset of slow global economic growth the idea of secular stagnation has gained popularity among economists⁵. The concept was first introduced into the economics lexicon by economist Alvin Hansen.



• Note: Secular stagnation as defined by economist Alvin Hansen in 1938 usually results when a slowdown in population growth as well as technological progress reduce investment opportunities in a market economy.

The appeal of the secular stagnation thesis fizzled in the post-WWII years as an economic boom had returned allowing most market economies of the world to grow at a very fast clip. However, the idea seems to have made a surprising comeback after the last financial crisis.

In light of Hansen's ideas on stagnation, the global economy today faces the challenge of a savings glut that cannot find profitable outlets. Understandably, without profitable investment outlets, the savings and capital flows that pile up would cause economic growth to fizzle and lead to economic stagnation over an extended period.

Back in 2005, Ben Bernanke, then chairman of the Federal Reserve System, argued that there was clear evidence of a global savings glut in the making; he saw it to be the result of:

- Dramatic increases in the ratio of retirees to workers in a number of major industrial economies creating a steady push toward savings
- Steep rise in U.S. current account deficit (i.e. more imports than exports) reflecting a reversal in the flows of credit from the developing nations to the developed world.

These days, with the economic residue from the fallout of the last crisis still with us, it seems to be getting harder to return the global economy on a firm growth path. Secular stagnation theorists have begun to cite a set of key factors as responsible. *The Economist* (2014b) provides us with a useful list:

- shrinking working-age populations in most developed economies
- Increased savings by an ageing populations that depresses consumption
- Rising levels of wealth and income inequality across the rich world causing an increase in savings all around
- Slow increase in real wages in the developed market economies of the world
- Technological progress threatening a large number of jobs with automation
- Fiscal retrenchment (e.g. a push by governments to cut back spending and balance their budgets)
- Cash hoarding by big companies (e.g. Apple and Microsoft)

6.9 GLOBAL PROSPECTS

Looking over the last three decades, most economies of the world have undergone significant transformations. The result has been:

- a substantial rise in economic transactions between nations
- a replacement of the role of governments by an increased role of markets
- a significant growth in financialization of global economies

This has created several challenges that remain front and center of the global economy. In a 2007 report the Brookings Institution provided a useful list of challenges of which the important ones are:

- Energy and environmental security
- Incidence of poverty and conflict
- Face of competition in the new era of globalization
- Problem of economic exclusion of youth
- Power of global corporations
- Global governance

Energy and environmental security is obviously the front-runner among all the challenges listed above. This is because uncertain energy supplies and the growing possibility of environmental disasters could easily compromise the long-term health of an economy and society while also damaging national security.

Unfortunately, as globalization blurs the boundaries and borders between economic zones, what may have once been distant threats continue to metastasize into immediate problems:

- an ongoing fight against global poverty that conflates into a struggle for global security.
- Advancing technology creating fierce competition for markets and jobs
- Alarming exclusion of youth as number of job seekers continues to exceed available jobs

Chances are these problems are going to get progressively worse as technology advances at an even faster pace. Meanwhile the power of MNCs seems to be showing no signs of abetting. This is often illustrated through:

- MNC monopoly over technological and intellectual property rights which allows them tremendous hold over local and national governments.
- A simple threat of market withdrawal can bend local governments to the will and dictate of MNCs given the speed with which goods, services, technology and financial capital can move across national borders

Probably the biggest challenge facing the global economy of the future is that of synchronizing economic policies across nations. Often enough, global trade negotiations reach a deadlock as do efforts to coordinate strategies to fight nuclear proliferation or even to fight the ever-increasing threat of pandemics.



More alarmingly, there are new trade pacts in the offing that may seriously undermine the long term economic prospects of workers, communities and the environment. Take for instance the Transatlantic Trade and Investment Partnership (TTIP) talks that have been initiated of late⁶. There appears to be a lot of opposition at the ground level even within the EU regarding the trade pact. The specific areas of concern are:

- Settlement of trade disputes through investor tribunals that are believed to be blatantly skewed in favor of powerful financial interests
- Compromising employment security by watering down existing labor standards
- Relaxing environmental standards and regulation

A startling feature of TTIP is the idea that international businesses could claim compensation for government policy changes that might adversely affect them.

There is another storm cloud gathering over the companion proposal of Trans-Pacific Partnership that was being forged behind closed doors which made it highly suspect; the fear is that the secretive negotiations tend to further corporate interests rather than the public good⁷.

Currently, the IMF is expressing concern that global financial risks may directly arise out of a mix of:

- tight fiscal policy which means austere government budgets
- accommodative monetary policy that keeps interest rates low

This may very well prove to be an unsustainable mix in the long haul, not least because an easy money policy tends to feed speculative bubbles especially when businesses are reluctant to undertake investment initiatives in the face of a lackluster economy.

Questions

- 1. Explain the difference between investment and finance. What role does each play in the globalization dynamic?
- 2. What is the difference between short-term capital and long-term capital? Why do countries not rely on long-term capital alone so as to secure a safe path to economic development?
- 3. How many types of risks are associated with globalization? Explain how these risks tend to be interrelated and it is impossible to control one without impacting on the others.
- 4. Explain how globalization has created new challenges for conventional banking and how commercial banks have tried to meet them.
- 5. Compare the benefits and costs of financial globalization. Is there any reason to believe that the benefits should outweigh the costs in the long run? Why or why not?
- 6. What is the meaning of secular stagnation? How is it relevant in today's world?
- 7. While portfolio diversification may eliminate a certain type of risk it may not be so effective in diffusing all other risks so well. Do you agree? Why or why not?
- 8. From what we have seen in this chapter is it reasonable to conclude that only those countries with developed capital markets stand to gain the most from globalization? Why or why not?
- 9. Globalization seems to have allowed a proliferation of speculative financial assets. Do you agree? Explain.
- 10. What are some of the challenges faced by the global economy today? Which of these might be most critical? Explain.
- 11. Do you think that the expanded financial arena created by globalization has added to the instability of the global economy? Why or why not?
- 12. Why are global activist groups often opposed to the design of trade pacts that are believed to promote free and balanced trade? What might be their pressing concerns?

7 POLICY QUESTIONS

7.1 INTRODUCTION

The question of economic policies arises because a market system cannot be left completely to its own means without risking instability. One of the key problems of globalized existence is that whenever something happens in a remote corner of the world it could easily send reverberations all over.

The globalization of markets and production has introduced new challenges for society. Most importantly, there have been considerable changes in the distribution of income both within and between countries which continues to create economic and social tensions that governments are called upon to address.

Very few disagree that globalization increases the exposure of countries to external shocks but when it comes to balancing the domestic economic conditions with those of their trading partners, national governments have a very limited set of options by way of policies.



The trouble is that national governments no longer have the freedom or autonomy to address economic problems as they arise. They can no longer expand domestic demand through various types of stimuli nor to adopt structural reform that conforms strictly to domestic interests.

In this chapter we shall first look at the nature of economic fluctuations and then weigh the macro policies designed to cope with them. This will lead to an examination of the special challenges posed by globalization and how they are likely to impact the long-term economic outlook.

7.2 ECONOMIC CYCLE

The health of a market economy is usually judged by three things:

- The size of the national output or GDP
- The rates of job creation and unemployment
- Prices and inflation

Given the swings and shifts in demand and supply that are integral to market dynamic, it is perhaps inevitable that there should be ups and downs in production and employment over time. These are referred to as economic cycles.

An economic cycle is made up of the stages of growth, peak, recession and trough. A sustained upswing in a nation's GDP is called economic **growth** and a slowdown is called **recession**. The trouble is that no one knows exactly how long each phase is likely to last.

As such, the symptoms of economic growth or slowdown are not too difficult to enumerate. During economic growth:

- The demand for goods and services grows at a fast clip, fed by increased investment
- the inventory/sales ratio of businesses continues to fall

In many ways this is self-reinforcing inasmuch as growth raises expectations for further growth which in turn triggers job creation and additional demand.

However sooner or later, the scarcity of available resources kicks in or else there may be some unexpected event or disturbance that might upset the sense of orderly progress. This is often called a supply shock.

POLICY QUESTIONS

There are many types of external supply shocks:

- an oil embargo imposed by OPEC (Organization of Petroleum Exporting Countries)
- A spate of bad weather or a natural disaster
- an unexpected bout of geopolitical uncertainty

Any of these could cause serious disruptions to the production cycle by driving up production costs and fueling a whole range of uncertainties.

Inasmuch as businesses tend to pass on their increasing costs to their customers in the form of higher prices, workers are likely to demand higher wages as well. Of course the latter depends on the extent to which labor in the country are organized and the stringency of the existing labor laws.

At any rate, any rising pressure of costs and prices is likely to slow down demand in the economy and if timely policies are not adopted to neutralize the negative forces then the economy may slip into a phase of recession.

As it happens, the downward forces could be equally self-reinforcing so that slowing demand could bring about matching cut backs in supply which means layoffs and rising unemployment.

A long time ago economists recognized that market economies may have a built-in tendency to go through periodic ups and downs, almost by design. Orthodox economists tend to blame the problem on:

- an inflexibility of prices
- institutional rigidities (e.g. strict labor laws)
- existing fiscal and monetary rules and regulations

However, the Keynesian economists who believe in the efficacy of macro management insist on using sensible policy measures to neutralize an economic cycle. Unfortunately, there are simply too many unknowns that could derail macro policies as was seen in the stagflationary seventies. The crucial test of policymakers is to get the timing of preventive measures right but as yet there exists no definitive way to neutralize an economic cycle.

POLICY QUESTIONS

7.3 MACRO POLICIES

The three primary goals of policy making being GDP, inflation and unemployment, a national government generally aims to:

- promote economic growth
- keep inflation under control
- achieve full employment

There is a broad range of macroeconomic indicators that policymakers regularly look at to gauge the state of an economy's health. They are:

- market interest rates
- the level of average wages
- the size of average household debt
- the size of government debts
- the size of trade deficits



Chastened by the Great Depression and WWII, policymakers explored new ideas about macroeconomic management. This led to the discovery of a set of suitable policy instruments:

- monetary policy dealing with the domestic money supply and interest rates
- fiscal policy dealing with taxes and government spending
- incomes policy dealing with the security of incomes and benefits
- **balance of payments** policy dealing with trade flows, capital flows and exchange rates

7.3.1 MONETARY POLICY

The focus of monetary policy is on money supply and interest rates. Here the central bank of a country plays a crucial role which involves:

- issuing legal tender (i.e. official money)
- acting as a lender of last resort
- supervising banking activity
- maintaining the value of money

At the heart of monetary operations is the monetary base that is shared by both the nonbanking public and the banking system:

• Monetary base is made up of the financial assets (e.g. government securities) on the basis of which banks conduct their lending activity.

While commercial banks tend to rely on private savings and treasury assets (mainly bonds) to finance their activities, with globalization there are also other available channels for securing funds. These days banks can also rely on foreign sources to fund both their lending and borrowing.

The quantity of deposits created within a banking system is usually a multiple of the monetary base depending on:

- **Required reserve ratio**: how much the central bank expects banks to hold on hand as reserves
- **Currency drain**: how much the nonbank public is willing to hold in the form of currency

Through their deposit and lending operations banks contribute to money creation that supports economic activity. However, a present day market economy relies on constant monetary innovations with which to facilitate transactions at minimum cost. Financial intermediaries are essential players in that dynamic, ensuring the smooth functioning of the economy.

POLICY QUESTIONS

The function of a financial intermediary is to:

- take the savings of depositors and channel them into profitable investment outlets (e.g. interest earning loans)
- convert a liability (e.g. a bank deposit) into an asset (e.g. a credit line or a loan to a business).

Since the business of banking is all about converting liabilities into assets, someone has to make sure that the liabilities and assets are roughly in balance over an extended period of time. This explains the need for the present day stress tests¹ that have lately attracted a lot of attention.

• Note: Bank stress test popularized since 2009 involves making up hypothetical scenarios (described by the IMF as unlikely but plausible) that are unfavorable by design, The aim is to determine whether a bank has sufficient capital to withstand any of it. These tests are meant to inform both banks and regulators to take preventive measures early on to prevent a full-blown crisis.

Stress tests are to ensure that money does not go off the rails. For instance, credit lines could freeze up all of a sudden, thereby bringing the global economy almost to a standstill. This calls for monetary policy intervention by the central bank.

Unfortunately, there are various competing goals facing monetary policymaking that may often run at cross purposes. Consider for instance the goals of:

- price stability (i.e. controlling inflation)
- low unemployment and economic growth
- balance of payments equilibrium

These cannot all be secured at once. While the short administrative time lag of monetary policy may be very attractive its actual impact may play out over a considerable time period thereby introducing a significant element of uncertainty in global markets.

In theory central banks can expand or shrink an economy by altering the cost and availability of credit in the economy. Unfortunately, a restrictive policy tends to be more effective than an expansionary one since central banks can control the availability of credit but they cannot actually force banks to lend. Besides, there are global consequences to domestic monetary policy shifts. For instance, an expansionary monetary policy move at home is likely to lower the value of a country's currency overseas, assuming that the exchange rate is flexible. This could also translate into inflation at home.

On the other hand, if the exchange rate were to be fixed at the outset, then any attempt by the central bank to ease up on credit is likely to cause global financial capital to look for a fast exit unless of course the central bank stands ready to defend the currency in which case the policy goal itself is frustrated.

Thanks to globalization, the effectiveness of monetary policy is closely connected to:

- the mobility of financial capital
- the presence of fixed or floating exchange rates

All said and done, it would not be an exaggeration to suggest that the free mobility of financial capital could render monetary policy measures completely ineffective.

Luxurious accommodation

ide

Central zone 1 & 2 locations

Meet hundreds of international students

BOOK NOW and get a £100 voucher from voucherexpress

Nido <u>Student Living</u> - London

Visit www.NidoStudentLiving.com/Bookboon for more info. +44 (0)20 3102 1060

POLICY QUESTIONS

7.3.2 FISCAL POLICY

Fiscal policy involves taxes and government spending. Just like monetary policy it is also aimed at achieving low unemployment without inflation. Taxes in general are built into the economic system as an automatic stabilizer. Thus tax revenues typically increase in times of economic growth and inflation but shrink automatically in times of economic slowdown.

In other words, taxes tend to tone down the swings of an economic cycle. Of course the stabilizing effect of taxation cannot always be counted upon given the time lag built into fiscal decision-making and administration. Consequently, there is always a danger that fiscal policy might amplify an economic cycle instead of neutralizing it.

What complicates fiscal matters more are the problems of deficit and debt. When the tax revenues are not large enough to support expenditures the government has to resort to borrowing which easily translates into an accumulation of debt over time.

Back in the 1970s and 1980s the spending by governments in industrialized countries began to increase faster than tax revenues thereby contributing to rising deficits.

Interestingly enough, there were also other factors at play:

- A drift toward deindustrialization (i.e. shifting from manufacturing to service industries)
- An overall economic slowdown triggering increased expenditures for transfers (e.g. welfare and unemployment compensation)
- A growing interest obligation on a steadily rising public debt burden

As may be imagined, growing government debt burdens invariably raise questions about financing. There are essentially three ways to finance a government's debt:

- Relying on tax revenues
- Borrowing at home or abroad by selling government securities
- Borrowing from the central bank thereby expanding the monetary base

However, so long as the monetary base is not changed, any effort by the government to borrow more creates the added problem of what economists call a "crowing-out effect".

• Note: Crowding out effect refers to a shrinkage or crowing out of private sector spending (e.g. consumption spending and investment) due to a rise in interest rates caused by a government's efforts to borrow in the face of an unchanged monetary base.

The crowding out effect could pose a significant threat to economic health when:

- an economy is close to full employment
- public spending is a substitute for exports
- there is free capital mobility.

Much of this has to do with the idea that when exports do not pick up under an expansionary stimulus then the public sector is forced to borrow at a higher interest rate.

In the previous section we saw how monetary policy is completely ineffective once the exchange rate is fixed but the same is not true of fiscal policy. The latter is very effective under fixed exchange rates and all the more so if financial capital is mobile.

This is because an expansionary fiscal policy sets off a chain reaction:

- it tends to raise the money supply
- this reinforces the expansionary effect of fiscal policy
- a fixed exchange rate prevents foreign investors from considering the fiscal expansion to be reckless.
- the government has an easy time borrowing overseas and not have to adjust domestic interest rates upward.

This is not to suggest that any sensible government could happily run deficits year after year for a steady accumulation of public debt might eventually jeopardize the government's ability to borrow.

The issues of deficit and debt are of course closely related. While there are no definite limits as to how far a country can go with its debt/GDP ratio (e.g. the ratio for Japan currently stands at more than 200) it never fails to raise an alarm, especially in conservative circles about what it might mean for the long term prospect of an economy. What is feared is a:

- · severe economic contraction down the road due to pressures to finance the debt
- loss of confidence of global investors in the economic prospects of the country

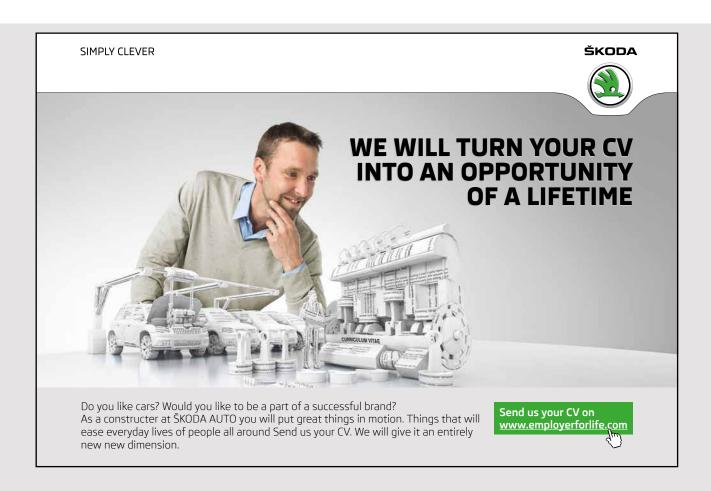
Followers of economist John Maynard Keynes are not generally averse to letting the government incur debt. This is because they maintain that deficit spending tends to have a larger impact on income compared to trying to match increased spending with a matching increase in taxes.

The trouble is that raising taxes is not an attractive political option in most circumstances. Consequently, when it comes to alleviating unemployment through expansive fiscal policy, policymakers choose one of two things:

- cut taxes across the board
- increasing government spending

Sadly, in either case, the result is a bigger deficit along with a bigger debt for the government.

Often enough public opinion latches onto the debt-GDP ratio as a good indicator of the ability of a government to manage an economy. But by itself the ratio is misleading for it does not accurately indicate whether the government is facing a serious risk of insolvency. Consequently, frenetic efforts to bring down the ratio could prove to be extremely shortsighted.



POLICY QUESTIONS

7.3.3 BALANCE OF PAYMENTS POLICY

Balance of payments refers to a combination of trading balance (i.e. between exports and imports) and capital movements (see section 2.8). Ideally, the goods trade balance and the balance of capital flows should sum up to zero but this seldom happens. The result is a:

- balance of payments surplus which means an increase in foreign currency reserves
- balance of payments deficit which means a decrease in foreign currency reserves

Persistent deficits can exhaust a country's holdings of foreign currency reserve. Given that a balance of payments equilibrium is an ideal long-run economic policy objective, however, countries often seek to offset the deficits incurred in some periods with surpluses from other periods.

However, there are exceptions; the U.S., a prime issuer of an international reserve currency (see section 1.6.2), could presumably go on building trade deficits so long as the dollar continues to be accepted globally.

Unfortunately, trade deficits cannot be racked up forever. Considering that the dollar is no longer backed by gold, there is always a danger that:

- her trading partners might lose faith in the ability of the US to pay back her creditors.
- the dollar might plunge in value in global exchange
- there could be serious economic dislocations all around

All things considered, carrying a balance of payments surplus appears a better alternative but that in turn has its own peculiar set of problems. A continuing balance of payments surplus means

- Deficits for one's trading partners
- A rise in the monetary base producing an upward pressure on prices

Thus globalization makes it possible for a country to export its economic troubles to others or in turn import the problems of others. The balancing act becomes especially tricky depending on the long term goals of a country.

If a country wishes to increase the global market shares of its national firms then a good formula would be to:

- maintain a surplus on goods trade
- maintain a deficit on the capital front

This calls for the domestic currency to be kept sufficiently weak which helps exports. This is a strategy that has long been popular with China, much to the consternation of the U.S.

While maintaining a balance of payments equilibrium may be a worthwhile long-term objective, it could still come up against a whole set of competing objectives. These may concern:

- promoting domestic competitiveness in global markets
- managing domestic demand so as to reduce a trade deficit

We have already seen how managing domestic demand could impact on currency value overseas thereby impacting the balance of trade. Contrarily, efforts to reduce a trade deficit may bring about restrictions in domestic demand which many increase unemployment.

In the face of such uncertain tradeoffs it is always tempting to play with the exchange rate as a policy instrument but this is not as easy as it sounds.

7.4 CURRENCY MATTERS

A country's ability to control its exchange rate depends on the exchange rate regime to which it subscribes. There are primarily two exchange rate regimes of interest:

- Fixed exchange rate regime (e.g. the gold standard)
- Floating exchange rate regime (i.e. free floating currencies)

Under a fixed exchange rate regime there is a preset band (around a central rate called **parity**) within which a currency is allowed to fluctuate. Policymakers can alter the exchange rate only by altering the parity or central rate.

In the mid-1990s a severe currency crisis hit Southeast Asia (section 2.6) which seems to have been caused by an earlier currency market liberalization. When a currency is liberalized then:

- speculators are free to move in and bet on currency values moving up or down.
- currency prices tend to gyrate wildly thereby frustrating predictability in trade
- policymakers are forced to adopt desperate measures to fend off speculation.

A similar drama played out in Argentina in 2001 which is widely seen as a result of the pegging of the Argentinian peso to the US dollar.

POLICY QUESTIONS

When a currency is pegged to the dollar (see section 1.6.4.) then any weakness in the former:

- compels the central bank to deplete dollar reserves (by buying back its own currency) in order to shore up the currency
- triggers a contraction in the domestic economy which means economic hardship for a lot of people caught off-guard.

As may be gathered, maintaining currency values is difficult in the face of free capital movements. This has been especially true with the growth in eurocurrency markets.

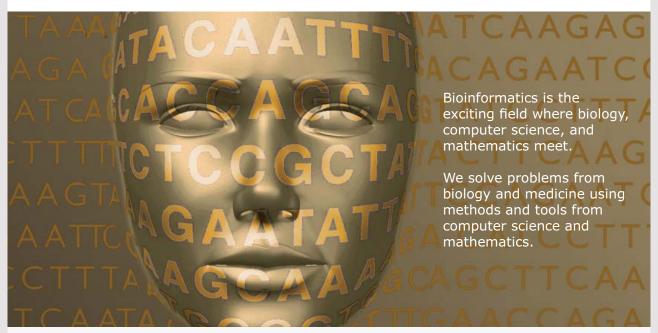
• Note: Eurocurrency market is a market in which international banks borrow or lend in a currency that is held in banks outside the country in which it is legal tender. A good example would be the eurodollar which refers to the US dollar held in banks outside the United States.

The general attraction of the eurocurrency market is not too hard to figure out. Compared to domestic markets, the eurocurrency market offers:

- higher interest rates on deposits
- lower interest rates on loans



Develop the tools we need for Life Science Masters Degree in Bioinformatics



Read more about this and our other international masters degree programmes at www.uu.se/master

Since the eurocurrency market happens to be largely unregulated, it is utilized by large firms and extremely wealthy individuals who wish to avoid:

- domestic regulations on capital holdings
- domestic tax laws governing financial dealings
- domestic restrictions or caps on interest rates

Since domestic depositor protections do not apply on overseas holdings nor do domestic rules and restrictions apply there, freely moving capital can fuel market volatility. This is because as capital moves through the eurocurrency markets, any effort to defend a currency can fuel uncertainty thereby upsetting a lot of plans for business investment.

For the most part, currency movements around the globe can make a lot of money for speculators but do not necessarily guarantee an efficient allocation of resources although a lot of free market advocates take exception to that observation.

At any rate, with international organizations being charged with monitoring currency movements and detect signs of trouble so as to take preventive action in time, global markets should feel safe and secure. Then again, the very same organizations are also faulted for misdirecting global traffic or else to stand by and do nothing when a currency crisis seems imminent.

For instance, the International Monetary Fund (IMF) has on occasion been blamed for:

- reducing market discipline by acting as a lender of last resort
- not having enough financial resources for addressing a large scale global crisis
- imposing harsh austerity measures on the beneficiaries of its financial assistance

7.5 FINANCIAL STRUCTURE

To fully appreciate the complexity of the global market dynamic, it is vital to understand all the key pieces of the modern financial system. At a glance, this includes:

- financial markets (e.g. for stocks and bonds)
- an infrastructure of payment and credit settlement (e.g. credit and debit cards)
- financial trading mechanisms (e.g. options and futures contracts)
- an elaborate network of rating agencies (e.g. Moody's; Standard and Poor)
- an insurance infrastructure to support financial products

There are however definite structural trends within the financial system that are worthy of note. The features that readily come to mind are:

- the financial trading and investment strategies that are changing constantly
- a fast rise in innovative financial instruments and off-balance sheet activity
- a rising incidence of financial consolidation that accounts for big market swings
- households and private savers taking on greater risk (e.g mortgage markets)

As it happens, risk nowadays is great raw material for the financial business since information technology offers lightning fast and very innovative ways to price and package risk into marketable financial products for the broad global market.

To be sure, the task of market-making in the financial arena has been helped tremendously by the creation of mammoth institutions that are distinctive in terms of:

- sheer size and scale of operation
- the enormous risk level at which they operate
- their complex interconnectedness

An added presence in that setup is the shadow banking system² that appears not to have been completely reined in by all the regulations that govern global finance.

• Note: Shadow banking system refers to the financial intermediaries that create credit across the global financial system but are not subject to strict regulatory oversight anywhere. Examples include hedge funds, and some innovative financial instruments of credit (e.g. unlisted derivatives).

Since its members do not attract private deposits like conventional banks, the shadow banking system has managed to escape regulation for the most part. Thus conventional capital requirements do not apply to them which also enables them to engage in highly risky activity without much accountability.

In a way macroeconomic policy serves as an insurance against downside risks but it can easily lead to:

- systematic under-pricing of financial risk going forward
- increased adventurism in investment exposures using leverage (i.e. debt)
- proliferation of increasingly complex and opaque financial contracts

POLICY QUESTIONS

Clearly, macro policy intervention faces a very uncertain terrain here. In theory early interventions may prevent financial risks from creating economic bubbles (see section 6.7) but once such a bubble pops, any remedial action might even encourage bad behavior on the part of strategists who are bent on gaming the system.

In addition to this the experts caution against making repeated attempts to fine tune a mechanical or electronic system after a systemic malfunction. This is because the policy instrument itself could then become unstable thereby leading the economy toward a free-fall as best exemplified by the flash crash of 2010 when stock indexes collapsed but then quickly recovered within barely a half-hour³.

7.6 SYSTEMIC RISK

Inasmuch as the complex interconnectedness of all financial institutions may be ideal for an efficient processing of information, it could also act as an amplification mechanism that can easily turn a slight disturbance into a full scale crisis.



As it happens, banks and other financial institutions are continually exposed to three key risks:

- credit risk (i.e. a borrower might default on a loan)
- liquidity risk (i.e. ability to turn a financial asset quickly into cash)
- market risk (i.e. loss due to factors affecting financial markets as a whole)

The idea of systemic risk⁴ is often connected to "market volatility" or "market risk". A globalized market system is constantly at risk of its financial sector seizing up or breaking down all of a sudden, thereby inflicting massive damages to the real economy.

In the popular jargon of investors, systemic risk cannot be diversified out in the sense of reducing one's risk exposure simply by diversifying the mix of one's financial assets.

Systemic risk may arise from:

- a sudden failure of large and interconnected institutions
- the inherent imbalances within a system becoming cumulative over time
- a sizeable and totally unexpected external shock to the system

According to Hyman Minsky (2008), an authority on financial instability, market volatility may be best explained in terms of a sequence of plausible events:

- During good times both consumption and investment spending increase.
- A rising demand fuels even more consumption and investment spending
- Investors increasingly are neglectful of the associated risks.
- The slightest sign of a slowdown triggers a prompt re-pricing of risk
- a steep unraveling of a credit boom follows, causing market seizure

Then there is the innate problem of asymmetric information that is an inherent feature of a financial system.

• Note: Asymmetric information refers to a situation in which one party to a transaction or exchange has more information compared to the counterparty. This opens up the possibility of one party taking advantage of the other due to a simple lack of information.

With the specter of asymmetric information ready on hand, the task of channeling the savings of those unaware of profitable opportunities to those who know of opportunities but do not have the necessary funds, gets frustrated. Economists call this an **agency problem** that rides on the backs of informational asymmetry.

• Note: Agency problem refers to the inherent conflict between the interests of agents (e.g. managers) and those of the principals (e.g. stakeholders).

It is widely believed that with the advances of technology in the information age, people have easy access to a broad range of information; consequently, asymmetric information may be on the decline.

Some experts believe that the problem may be best handled through:

- well-specified financial contracts
- clear standards of enforcement of legal contracts

However, no matter how well articulated, financial contracts and rules of enforcement do not always allow for all manner of contingencies. This creates a real danger that personal gains may be procured at the expense of steep social costs. A prime example is the massive bank bailout in the U.S. in the wake of the 2008 crisis.

What makes the financial system an especially critical sector of a globalized economy is the presence of:

- Sizeable negative externalities that can compound a systemic unraveling
- Information asymmetries that have been cited above
- Powerful feedback mechanisms that could amplify crises

All of these problems surfaced in the wake of the financial crisis of 2008 that threatened a global meltdown. Many commentators have since blamed the global catastrophe on:

- the speed with which the global financial markets had integrated since the 1990s
- the tremendous increase in leverage or debt piled up by global financial institutions
- sensational advancements in technology that allow instantaneous transmission of information worldwide
- undetected accumulation of global imbalances over a long period of time

In view of the spectacular economic fallout from that crisis it is impossible not to agree that individual behavior that is perfectly rational in the strictly economic sense could still be remarkably wasteful in social terms. In other words, it may be foolhardy to expect that financial markets can always be relied upon to guide optimal social allocation of our scarce resources.

Legendary economist John Maynard Keynes famously considered the financial markets to be ruled by "animal spirits" the taming of which is very difficult to say the least⁵. Besides, engaging the animal spirits to serve the broader interests of society is close to impossible. To add to it, he saw a real danger in allowing the economy to become a bubble in a whirlpool of speculation.

Brain power

By 2020, wind could provide one-tenth of our planet's electricity needs. Already today, SKF's innovative know-how is crucial to running a large proportion of the world's wind turbines.

Up to 25 % of the generating costs relate to maintenance. These can be reduced dramatically thanks to our systems for on-line condition monitoring and automatic lubrication. We help make it more economical to create cleaner, cheaper energy out of thin air.

By sharing our experience, expertise, and creativity, industries can boost performance beyond expectations. Therefore we need the best employees who can meet this challenge!

The Power of Knowledge Engineering

Plug into The Power of Knowledge Engineering. Visit us at www.skf.com/knowledge

SKF

7.7 SUPRANATIONAL INSTITUTIONS

As we saw in section 1.6.2., after WWII had ended, saner minds quickly returned to reinstate the global channels of trade and exchange but with appropriate safeguards in place. The Bretton Woods model worked beautifully for three long decades. Back then international economic policy was supposed to be subordinate to domestic prerogatives such as maintaining:

- full employment
- economic growth
- social insurance
- a welfare state

Most significantly, the policies to regulate the global economy were conceived in the spirit of multilateralism which meant setting the rules of operation through international organizations. This worked well with the IMF and the World Bank along with GATT (see section 2.3).

The emergence of the WTO in 1995 signaled a sharp change in the orientation of globalization. Since then the supranational institutions seem to have changed their orientation, apparently to deal with newer challenges on the global front.

This has mostly meant:

- a more strict interpretation of free market capitalism than ever before.
- a push for more noninterfering national governments in the conduct of global trade.

In many ways, a completely new type of globalization has succeeded in reversing the priorities that had once defined the Bretton Woods model. Thus domestic economic management has come to be subordinated to the needs of international trade and finance.

Accordingly, there has been a definite resetting of the globalization compass. This has called for a completely new set of rallying points for the global players that could best be listed as:

- low corporate taxation
- fiscal conservatism (i.e. tight fiscal policy)
- financial deregulation (i.e. more financial innovations)
- labor market flexibility (i.e. reducing union power)

Apart from maintaining balanced budgets and keeping monetary policy relatively flexible, the new shift in direction suggested a more ambitious plan than ever before. Much of this reflects a steady push by multinational companies for more market flexibility which of course would undoubtedly help their international profit position.

The most visible changes have included:

- bringing agriculture and certain services within the orbit of trade negotiations
- extending WTO scrutiny to domestic health and safety regulations
- New rules on patents and copyrights to establish international standards
- Tighter controls on domestic industrial policy and import restrictions

Under GATT trade policies the dispute between countries had been mostly about tariffs and quotas. However, with tariffs and quotas being gradually phased out over five long decades since WWII, the focus of WTO shifted to removing what were deemed as remaining market imperfections in the global trading system.

Henceforth trading partners could effectively challenge:

- Tax systems within nations
- Food safety rules within nations
- Environmental regulations of countries
- Industrial promotion policies within countries

As we look to the future, there appears to be growing resentment among the developing countries about not having enough of a voice in the global trade negotiation forums that tend to be dominated by the interests of wealthy nations.

There continues to be a considerable bit of tension between domestic prerogatives and external obligations and this goes beyond the delicate balancing act of trade negotiations toward addressing bigger questions about global economic stability⁶.

7.8 CHANGING REALITY

Now we know, while globalization refers to an increased interdependence of economic and social systems throughout the world, it also presents a formidable task of coordination, a policy nightmare. As it happens, the fast movement of goods, labor and financial capital across national borders alters the economic landscape but not always to the benefit of everyone.

Given that the proponents of globalization continue to emphasize the efficiency gains reaped from integrating markets around the globe, there is also an ever-present threat of social dislocation to contend with. A primary example is the phenomenon known as deindustrialization across the global economy.

• **Deindustrialization** refers to the gradual decline in the importance of manufacturing in progressive capitalism which is at times associated with a deskilling of labor (i.e. redundant skills) as well.

Often hailed as a desirable shift from old-fashioned manufacturing to service industries, the deindustrialization process appears to have serious long term implications for jobs and wages.

Globalization undoubtedly increases competition but it is as yet uncertain whether the broader social effects are likely to be mitigated over the long haul. In particular, even the developed world seems quite vulnerable to the long march of:

- large scale automation
- widespread computerization
- disappearance of low-wage, low-skilled work

Trust and responsibility

NNE and Pharmaplan have joined forces to create NNE Pharmaplan, the world's leading engineering and consultancy company focused entirely on the pharma and biotech industries.

Inés Aréizaga Esteva (Spain), 25 years old Education: Chemical Engineer - You have to be proactive and open-minded as a newcomer and make it clear to your colleagues what you are able to cope. The pharmaceutical field is new to me. But busy as they are, most of my colleagues find the time to teach me, and they also trust me. Even though it was a bit hard at first, I can feel over time that I am beginning to be taken seriously and that my contribution is appreciated.



 NNE Pharmaplan is the world's leading engineering and consultancy company focused entirely on the pharma and biotech industries. We employ more than 1500 people worldwide and offer global reach and local knowledge along with our all-encompassing list of services.

 nnepharmaplan.com

nne pharmaplan®

One of the leading areas of concern among economists is about the effects of globalization on income inequality. Some researchers have discovered interesting contrasts in the patterns of inequality (see *The Economist* 2012):

- a decline in global inequality as poorer countries have begun to catch up with richer ones
- growing inequality within nations which is reaching alarming proportions.

Within developed and developing nations alike, much of the ongoing debate is about:

- widening wage differences between skilled and unskilled workers due to a so-called digital divide
- a polarization of incomes leading to the disappearance of a solid middle class

After ignoring the problem for a very long while, the IMF has finally begun to admit that runaway income inequality has the potential to:

- slow down economic growth
- cause or quicken the pace of financial crises
- weaken overall global demand for goods and services

Apart from the idea that runaway income inequality could give rise to social tensions there is also a danger of fostering social pathologies, from obesity to suicide.

Sociologists and social philosophers worry that runaway income and wealth inequality could also clamp down on social mobility and restrict the opportunity for advancement for vast segments of the growing global population. These problems could easily make for a very unstable world and that also in the not-too-distant future.

POLICY QUESTIONS

Questions

- 1. Explain why monetary policy is likely to be totally ineffective in the case of fixed exchange rates while fiscal policy is ineffective when exchange rates float freely.
- 2. Could it be said that in the face of globalization MNCs are in a better position to dictate national economic policies than the policymakers themselves? Explain.
- 3. When it comes to addressing economic volatility is it better to have a fixed or floating currency in international exchange? Compare the merits of each.
- 4. What is the difference between multilateralism and regionalism? Does globalization invariably promote multilateralism? Why or why not?
- 5. Instead of steering the global economy away from trouble, supra-national bodies such as the IMF and the World Bank often deepen economic crises once they strike. Do you agree? Why or why not?
- 6. Given what we have seen here could we say that the popular slogan of "think global and act local" does not quite work when it comes to the economic security of lives and livelihoods at the local level? Explain.
- 7. What are NGOs? What explains their growing popularity in recent years?
- 8. Name a few risks posed by globalization to national welfare. Doe globalization have built-in mechanisms to address these risks? Why or why not?
- 9. Explain why globalization makes it so difficult for policymakers to manage their domestic economies.
- 10. What possible backlash could we anticipate against globalization in the near future? What could be the outcome?

8 PUZZLING PROSPECTS

8.1 INTRODUCTION

In this concluding chapter we shall examine the puzzles and paradoxes associated with globalization. These will become clear as we look at the tensions that underlie the globalization process. At a fundamental level, there remain questions of productivity versus distribution that cannot be settled through free trade and integrated markets alone.

Most advocates of globalization prefer to ignore these pressing issues, claiming that market processes will somehow cure all the problems in due course. However, it may be a mistake to have too much faith in market exchange as an automatic mechanism that can address all the tensions created by its own dynamic.

We shall first look at a few obvious paradoxes and puzzles underlying globalization before turning to the economic success stories from Southeast Asia. This will lead to an examination of the economic miracle that is China. The ongoing challenges that globalization poses to policymakers will be summed up next before examining the possibility of a backlash to the entire globalization initiative. The chapter concludes with a few thoughts about our economic future.



8.2 GLOBALIZATION PARADOX

Let's say we create for ourselves an easy scenario, stretching from the early stages of development in an emerging market economy all the way to mature growth. While globalization is widely believed to release untold growth possibilities, the accepted formula runs on two basic tenets:

- very few things in life are beyond the pale of trading and market exchange
- a growing network of exchange is the key to improving the human condition

However, this prepares the ground for many puzzles and paradoxes as we shall see here. These happen as market expansion often opens up possibilities of serious resource depletion, corrosive social processes and even a loss of local autonomy.

8.2.1 **RESOURCE DEPLETION**

Chances are, a country that just opened up to global trade may be best positioned to trade in natural resources such as minerals and forest products. These resources may also be plentiful and easily available from the outset; consequently, it is logical that the less developed nations should rely on the export of natural resources as a first step toward globalization.

With access to the latest technology that globalization has on offer, it then becomes easy to tap into all the natural resources that exist either above or below ground. Thus it becomes all the more lucrative to engage in a massive exploitation of a natural resource base.

Consequently, the first impetus to development comes from marketable products or commodities made out of:

- virgin forests
- pools of clean water
- pristine natural sites

Going forward, it is hoped that this clear development plan will shift onto supplying basic staples for broader global markets. However, this may not always work out as planned.

8.2.2 COMPETITIVE ADVANTAGE

Both the World Bank and the IMF recommend a formula for growth and development that relies on:

- specialization in production
- open markets free of trade barriers
- a reliable monetary unit in terms of which to conduct trade

All of these are perfectly in keeping with the conventional notion of comparative advantage that we had seen earlier in section 1.4. However, that idea also carries a crucial caveat about the mobility of financial capital that most mainstream economists choose to ignore.

Once financial capital wins free mobility across national borders, the idea of comparative advantage becomes practically impossible to define¹. This is because with business interests no longer being confined to the national boundaries it is not clear what constitutes national advantage.

Of course this seldom dissuades mainstream economists from giving up on the notion of comparative advantage as the rationale for globalization. Nonetheless, if the mobility of capital were to be factored in then comparative advantage would have to be replaced with the competitive variant. After all, large businesses can easily employ higher levels of efficiency to eliminate competition, thereby capturing ever-larger market shares around the globe.

Understandably, a lot of developing nations have lately begun to complain about just that. They see the global economic dynamic to be skewed in favor of the developed nations of the world. This is the flip side of further capital market integration and trade liberalization being pushed by the WTO.

This makes it difficult to dismiss the charge that the WTO, World Bank and the IMF may be geared more to preserve the established positions of advantage in global trade than to promote economic development around the world.

8.2.3 COMMODITIES TRAP

Back in 1960, economist W.W. Rostow had envisioned five steps through which all nations have to go in order to enjoy the benefits of economic development:

- Traditional society relying on subsistence agriculture and little trading
- Preconditions to take-off with emphasis on manufacturing and international outlook
- Take-off: a short period of intensive growth and rapid industrialization
- Drive to maturity with rising standard of living and increased use of technology
- Mass consumption promoted by mass production and consumerism

Following Rostow's development template, the trade-based approach to development should proceed according to the following script:

- A nation begins by exporting primary commodities and natural resources
- Then develops a manufacturing base and industrializes using foreign capital investment
- Gradually moves into more competitive industries and competes actively in global markets
- Enjoys mass consumption and rising standard of living for most citizens

Thus when the trading circle expands, a poor country can easily capitalize on its innate advantages of:

- making simple manufactured goods using an abundance of cheap labor
- attracting capital investment from the high labor cost nations (e.g. call centers)

However, the path may not be so simple. Once a nation chooses to specialize in commodities and raw materials, it could easily get sucked into what is often thought of as a commodities trap.

FOSS Sharp Minds - Bright Ideas! Employees at FOSS Analytical A/S are living proof of the company value - First - using The Family owned FOSS group is new inventions to make dedicated solutions for our customers. With sharp minds and the world leader as supplier of cross functional teamwork, we constantly strive to develop new unique products dedicated, high-tech analytical Would you like to join our team? solutions which measure and control the quality and produc-FOSS works diligently with innovation and development as basis for its growth. It is tion of agricultural, food, pharreflected in the fact that more than 200 of the 1200 employees in FOSS work with Remaceutical and chemical produsearch & Development in Scandinavia and USA. Engineers at FOSS work in production, cts. Main activities are initiated development and marketing, within a wide range of different fields, i.e. Chemistry, from Denmark, Sweden and USA Electronics, Mechanics, Software, Optics, Microbiology, Chemometrics. with headquarters domiciled in Hillerød, DK. The products are marketed globally by 23 sales We offer A challenging job in an international and innovative company that is leading in its field. You will get the companies and an extensive net opportunity to work with the most advanced technology together with highly skilled colleagues. of distributors. In line with the corevalue to be 'First', the Read more about FOSS at www.foss.dk - or go directly to our student site www.foss.dk/sharpminds where company intends to expand you can learn more about your possibilities of working together with us on projects, your thesis etc. its market position. **Dedicated Analytical Solutions** FOSS Slangerupgade 69 3400 Hillerød Tel. +45 70103370 www.foss.dk

• Note: Commodities trap refers to the inability of a nation to push through to manufactures and other tradable products, i.e. a more broad-based formula for development.

This is often because of powerful local interests that are entrenched enough to oppose further economic development. Being locked into commodities production over an extended period of time, a nation may have to:

- abandon the possibility of long-term growth and development altogether
- remain vulnerable due to exposure to the swings and fluctuations of global markets

8.2.4 STRUCTURAL PRESSURES

Inasmuch as globalization opens the door to new technologies and new innovations in products and processes, it calls for the development of critical capabilities at all levels of society. This often calls for:

- adapting foreign technologies to local conditions
- ensuring that domestic workers acquire the necessary skills
- assuring that the specialized inputs for production are home-grown
- balancing complementary investments in diverse areas

However, any nation on the development path that has to be receptive to structural changes may not be able to address it in an organized fashion. Consequently, the result may well be a deepening of social fissures and mounting tensions between competing groups.

8.2.5 STATE INTERVENTION

While a well-coordinated plan for trade-based development may promise great social gains, short-term private profitability could also stand in the way. This pushes the state to take an active role in managing a country's economic development plan thereby challenging an otherwise laissez-faire vision of globalization.

If the truth be known, ever since the financial crisis of 2008, most of the advanced market economies of the world have shifted toward a more state-directed model of capitalism. This is evident from the way big chunks of GDP were directed to:

- bail out big banks so as to save the global economy from a credit freeze
- stimulus packages to resuscitate growth and ensure economic stability

The trouble is that this kind of state interventionism introduces what economists call market imperfections that go against the grain of free market competition. Consequently, it is paradoxical that the best way to ensure free global trade may be by enhancing the role of the state in directing markets.

8.3 PRODUCTIVITY PUZZLE

Economists often contend that the cause of poverty is low productivity. As it happens, a popular explanation of poverty is that the poor simply do not produce enough to feed, clothe and house themselves adequately. Consequently, they are forever doomed to poor health and low quality education which help perpetuate their unfortunate condition.

A whole host of factors could be brought in to explain this malaise. It may have to do with:

- a lack of access to the latest technologies
- an absence of opportunities for innovation
- a general lack of education and skills in a population
- a lack of access to credit

To add to it, in a world of market-driven production, the simple lack of access to expanding markets may be a big reason for keeping broad swathes of a nation's population underproductive and poor.

What could then be better than to rely on globalization to reverse all that. Then again, the countries that are best able to take full advantage of globalization need to possess three necessary characteristics:

- A significantly large stock of fairly well educated and skilled workers
- A well-functioning legal system and stable governance
- Openness to foreign capital investments

Chances are, in the absence of any or all of these traits, trade could easily turn into cultivating a lop-sided dependency of sorts between countries in the core versus those in the periphery. In today's world most nations fall into two distinct categories:

- Those at the **core** are highly industrialized and regularly take up a big share of the global markets
- Those on the **periphery** concentrate mostly on the export of natural resources and raw materials

Being forced to strike a balance between the import of essential staples (e.g. corn) with the export of nonessential goods to other countries (e.g. cut flowers), a developing nation in a polarized world could easily slip into a lop-sided productivity growth pattern.

The problem is likely to be compounded as:

- the advanced countries in the core continue to enlarge their supply of skilled labor
- countries in the periphery keep their stock of workers deliberately unskilled so as to capitalize on the outsourcing and offshoring of low-skilled work from the advanced nations.

Thus as the long-term prospects of the advanced nations continue to improve that of the developing nations could stagnate, making rising inequality an obvious outcome.

Admittedly the situation could improve once a developing country adopts advanced technology but it does not put the advanced nations entirely off the hook. This is because advancing technology could easily make vast segments of even a skilled population quite redundant.



Consider for instance the professional and highly competitive areas of medical diagnostics, paralegal services and tax preparation. Only a short while ago these jobs seemed full-proof against offshoring but not anymore.

Thus it is no surprise that there is growing evidence of an increase in the inequality within countries while simultaneously making select groups of citizens across nations extremely wealthy (*The Economist* 2012). Thus unbalanced outcome suggests that simply thinking global and acting local may not offer a satisfactory resolution.

8.4 ADDED TURBULENCE

Once a market is opened up to global economic forces of course, it has to be kept open but this presents a whole new set of challenges. We could readily identify four critical areas of concern surrounding the globalization dynamic:

- Health and safety
- Integrity of property rights
- Economic security

8.4.1 HEALTH AND SAFETY

Consider for instance the salmonella scare on Mexican fresh produce a few years ago; it alarmed the public against consuming fresh salads and uncooked fresh vegetables. A more complicated but interesting case cropped up when the WTO ruled against the U.S. for a ban on tuna from Mexico for using catching techniques that endangered dolphins.

The ongoing French ban on American steroid-treated beef may be discounted as a simple case of overreaction but the American partial ban in 2007 against toothpaste made in China which was found to be laced with hazardous chemicals was deadly serious.

Not surprisingly, the WTO is embroiled these days in a lot of controversy surrounding unfair trading practices and there is no way to sort these out to everyone's satisfaction. This is in addition to the pressing need to monitor a whole host of safety standards surrounding advancing technologies.

For instance, complex regulations and legal requirements already rule the auto, energy and telecom industries. The first of these is famously riddled with concerns about emission standards, seat belt features and air bags.

However, by far the most serious are the regulations that typically accompany

- nuclear technology in all its various applications from energy production to medical diagnosis
- genetic engineering that extends from food production all the way to medical applications

There are simply too many serious health and safety concerns in all these areas that we can overlook only at our own peril. Nevertheless, without tacit agreement across nations to enforce the necessary rules and regulations none of these concerns could be meaningfully addressed.

8.4.2 PROPERTY RIGHTS

Free trade is virtually inseparable from property rights. Therefore, trading practices that might impinge on property rights could short-circuit even the best laid plans of globalization.

As it happens, lucrative channels for violating intellectual property rights are opened up by globalization. Hence the growing complaints against China about copyright infringements on U.S. movies, music and software. Left unattended, these violations can deprive those industries of hard earned revenues.

This makes it all the more important to establish clear ownership before trading can continue but there is an additional need for law courts to enforce legal contracts. Add to that the vast amounts of research and development expenses to support inventions and innovation and we are talking about a huge national commitment in terms of time, energy and resources.

8.4.3 ECONOMIC SECURITY

Often enough unrestricted trade can also lead to a general loss of economic security for big segments of the global citizenry.

While it is true that imports tend to be a price depressant due to a feverish increase in competition, if taken too far, an unrestricted flow of imports could also lead to:

- depressed domestic wages
- the elimination of jobs that were once protected by union contracts
- the elimination of long-standing work benefits and pensions

Naturally, the domestic workers thus affected may not easily find alternative jobs or even decent wages and adequate income security.

These questions take a most unsavory turn when we factor in the role of child labor. It is a reality we cannot ignore. Although it is justifiably frowned upon on humanitarian grounds in most developed parts of the world, restrictions against child labor could also pass for a subtle form of trade restriction designed to thwart the developmental aspirations of a poor nation.

Given the scope all of these problems we have seen here, the fear of a race to the bottom (see section 5.8) may be too palpable to ignore².

8.5 ECONOMIC CRISES

In the era of globalization, economic crises could arise out of several possible causes. The following are especially noteworthy:

- geopolitical uncertainty born of some political unrest somewhere in the world (e.g. the ongoing crises in the middle-east)
- natural disaster causing sudden stoppage or interruption in resource flow (e.g. the 2011 earthquake and tsunami in Japan)
- sudden change of national policy direction regarding currency value or macro stability (e.g. uncertainty with the Russian ruble)



Low-speed Engines Medium-speed Engines Turbochargers Propellers Propulsion Packages PrimeServ

The design of eco-friendly marine power and propulsion solutions is crucial for MAN Diesel & Turbo. Power competencies are offered with the world's largest engine programme – having outputs spanning from 450 to 87,220 kW per engine. Get up front! Find out more at www.mandieselturbo.com

Engineering the Future – since 1758.





Since the 1970s there have been several crises of note. One might say that the US going off the gold standard in 1971 may have been instrumental in introducing a considerable amount of uncertainty in global markets but that is a weighty question that cannot easily be settled one way or the other.

Meanwhile, it is hard not to agree that the severity of economic crises has not decreased over the last four decades. If anything, ever since globalization moved into high gear in the early 1980s, the frequency of crises has increased significantly and every new crisis promises to be more amplified than the last one.

8.5.1 POLICY RESPONSE

As we have already noted, the economies that are globalized may have become more vulnerable to external shocks while national governments have less maneuvering room either to:

- stimulate **aggregate demand** (i.e. the sum of consumer spending, business investment demand and net exports)
- adopt structural reform (e.g. regulating financial high-rolling)

We have also noted that the conventional monetary and fiscal policy measures may not be suited to handle the challenges posed by globalization. While diehard optimists may find the unpredictability of globalization to be particularly exciting, what could be quite unnerving is when the risk-taking activities of unruly prospectors begin to hit the middle classes especially hard.

Ironically, the policies adopted to date to address a crisis fallout seem only to prepare the ground for the next one. It is as if the global economy is destined to travel from crisis to crisis rather than from crisis to solution.

8.5.2 UNRESOLVED ISSUES

Ultimately we are faced with two critical questions that have long shadowed the discipline of political economy:

- Could markets really be self-governing or self-stabilizing according to the ideal of free enterprise?
- Is the public interest best served when private enterprise is allowed to operate completely free from government interference?

These questions assumed critical importance in the wake of the near catastrophe triggered by the financial crisis of 2008, widely described as the worst crisis since the Great Depression. Since then the great economic powers of the world have put in place some safety precautions but critics have disparaged them as at best half measures.

It is true that the precautionary measures adopted in the wake of the last crisis were focused primarily on freeing up credit channels and restoring the financial industry back to health. This meant that most of the fundamental structural deficiencies in the global economy were for the most part left unattended.

Thus globalization hobbles along as a rather amorphous operational field wherein:

- the rules of the game keep changing constantly
- all the players are constantly pitched against each other, jockeying for competitive advantage
- national governments are on occasion totally bereft of the necessary resources with which to address pressing domestic interests

All said and done, it would do us considerable good to remember that social gain is not the same thing as private profits nor should the former be subjected to the terms set out by the latter.

8.6 ASIAN MIRACLE

Back in 1993 a World Bank report presented an impressive collection of expert analyses on how a group of Asian nations had enjoyed spectacular growth since the early 1960s.

This group, also known as the Asian Tigers, included South Korea, Taiwan, Hong Kong, Singapore, Malaysia, Thailand and Indonesia. What these countries had in common was a:

- · dedication to export-led growth as the surest path to economic prosperity
- central role granted to their respective governments in guiding and coordinating growth.

For the World Bank this prescription to growth was a bit hard to swallow since it suggested a blatant departure from the standard formula of laissez-faire market economics. Most critical of all was the control that the state governments exercised over financial markets. This meant that all efforts to accelerate industrialization and growth had to be coupled with:

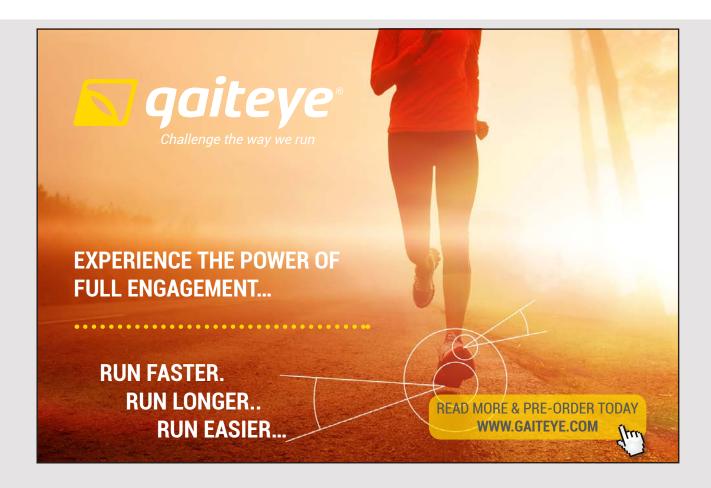
- explicit ceilings on interest rates
- generous credit subsidies targeted at new industries
- stiff restrictions on capital flows in and out of a country

To add to it, an active government for nurturing a market economy is an accepted fixture in the variant of globalization popular in Southeast Asia.

Accordingly, state involvement takes the form of:

- tax incentives for investment in designated sectors
- direct supply of inputs to businesses
- direct assistance to overcome bureaucratic hurdles
- protection to nascent industries from global competition
- explicit export subsidies to establish domestic firms in global markets

In view of the Asian economic miracle it cannot be stated with any amount of conviction as to whether or not a state should play an active role in preparing private enterprise for global markets. All we can safely say is that there is a need to be pragmatic about the role a government needs to play to ensure that a market economy is firmly situated on a path of economic growth.



PUZZLING PROSPECTS

8.7 CHINA RISING

China is by far the best example of the alternative model of development popularized in Southeast Asia. Most notably, China ignored most of the orthodox prerequisites for development as laid out by the economic orthodoxy. This meant circumventing the stipulated need for:

- clearly established private property rights and rules of contract enforcement before engaging in globalization
- thoroughly financializing an economy by establishing stock, bond and financial markets that provide relatively free access to global investors
- embracing all the rules for complete market integration laid out by the WTO

Perhaps no country could have so completely gone against the economic orthodoxy and still come out ahead. Most strikingly, the Chinese path to growth and development succeeded by:

- not relying on the export of primary goods and staples as a development strategy
- pushing for advanced high-technology products straight off in a labor-abundant and relatively poor country.

Rather astonishingly, the economic strategies adopted by China did not deviate much from the reigning political ideology of central government control over all economic activity. Nonetheless, the Chinese policymakers were hugely successful in their readiness to experiment with alternative institutional arrangements to figure out just what suited the needs of the country best.

For the most part this meant:

- utilizing township and village enterprises in lieu of private property rights
- a gradual removal of trade barriers while opening up to global market forces
- creating special economic zones for promoting exports and foreign investment
- preventing the Chinese currency from being fully convertible in international trade

Thus the WTO prohibitions against export subsidies and other trade restrictions favoring domestic firms were systematically disregarded by China. But by the time China joined the WTO in 2001, a strong industrial base had already been established so that playing by the global market rules proved not to be too difficult from then on.

Ever since joining the WTO China sharply reduced its tariff barriers and also began to phase out most of its prior industrial policies. As yet there is no letting up of active state intervention when it comes to maintaining competitive exchange rates however. Instead very little is spared to:

- keep the currency (yuan/renminbi) artificially cheap in global markets
- keep short-term capital flows out thereby reducing market volatility

All said and done, it cannot be denied that China's unusual strategy mix produced the most spectacular bout of growth in a relatively short period of time. Accordingly, the Chinese economy has enjoyed a doubling of incomes about every decade since the late 1970s and staged the best possible economic miracle in the least possible time.

China has undoubtedly succeeded in a most unbelievable catch-up game with the developed world. By some accounts this rapid pace of growth is widely credited for lifting about half a billion people out of extreme poverty³.

8.8 COORDINATION PROBLEM

As should be clear by now, as markets become more and more integrated around the globe, the task of policy coordination becomes increasingly difficult. In fact a whole network of supporting institutions is needed to keep markets operational and this rule applies equally to global markets just as much to local and regional markets.

Evidently, the policy instruments adopted for securing domestic objectives also have to be coordinated with the priorities of the rest of the world. However, this causes nations to be caught in the cross-currents of:

- multilateralism: trade and policy coordination among several countries
- **regionalism**: creation of free trade areas or trading blocs among select groups of countries

Since the 1980s regionalism has been in full swing with the formation of the North American Free Trade Area (NAFTA) which led to the abolition of tariff barriers between the US, Canada and Mexico. Furthermore, the European economic union movement gathered momentum in the 1990s, concluding with a single currency, the euro, in 1999. In 1991, several countries in Latin America also joined a trading bloc called Mercosur.

Here it is worthwhile to note that forming a trading bloc does not automatically mean switching onto a single currency. NAFTA is a good example of a trade bloc without a single currency agreement as also is ASEAN (Association of Southeast Asian Nations).

The visible drift of countries around the globe toward regionalism may be a clear indication that the spirit of multilateralism that was the original impetus for globalization in the post-WWII period may be on the wane. As yet the academic experts are not clear whether regional integration or multilateralism will set the tone for globalization in future.

Clearly, managing a globalized economy without global governance is proving to be virtually impossible as nations have begun to realize of late. In the past some powerful country or a consortium of countries took the lead to smooth out all the wrinkles in the path of global trade and exchange. The U.K. is a perfect example.

Evidently, the pressure of imperialism in the early days was very successful in holding the global markets together since all it took was the political and military might of an imperial economic power to keep the rest of the world in line.

Technical training on WHAT you need, WHEN you need it

At IDC Technologies we can tailor our technical and engineering training workshops to suit your needs. We have extensive experience in training technical and engineering staff and have trained people in organisations such as General Motors, Shell, Siemens, BHP and Honeywell to name a few.

Our onsite training is cost effective, convenient and completely customisable to the technical and engineering areas you want covered. Our workshops are all comprehensive hands-on learning experiences with ample time given to practical sessions and demonstrations. We communicate well to ensure that workshop content and timing match the knowledge, skills, and abilities of the participants.

We run onsite training all year round and hold the workshops on your premises or a venue of your choice for your convenience.

For a no obligation proposal, contact us today at training@idc-online.com or visit our website for more information: www.idc-online.com/onsite/

AUTOMATION & PROCESS CONTROL

> MECHANICAL ENGINEERING

OIL & GAS

ENGINEERING

ELECTRONICS

INDUSTRIAL DATA COMMS

ELECTRICAL POWER



Phone: +61 8 9321 1702 Email: training@idc-online.com Website: www.idc-online.com In today's world that role has been thrust upon the United States as the biggest economic and military superpower. To a large extent, the G8 group of nations share some of the responsibilities. As of 2008, the G8 consortium has included Canada, France, Germany, Italy, Japan, Russia, the U.K. and the U.S.

While the diehard advocates of globalization continue to see globalization strictly in terms of democracy and a market economy, present day economic reality suggests that multiple pathways may be possible to secure that dream.

8.9 **RESETTING PRIORITIES**

In our globalized existence externalities abound, as we have noted earlier (section 4.6). Add to that mix the health of the global environment and there is no easy way to address any of it. All of us are tied to the environmental commons and this calls for shared responsibility on the part of all concerned.

While it is easy to say that positive externalities (spill-over effects) should be enhanced through grants, subsidies and other incentives while the negatives should be minimized using regulation, taxes, penalties and fines, it becomes a daunting task to coordinate these across national borders.

We have already seen how economic growth and development are popularly seen to be by far the best solution to reducing environmental stresses. This is because rising living standards tend to bring about:

- A commensurate rise in environmental consciousness
- Newer demands for a better quality of life and aesthetics since the environment is thought of as a valuable source of renewable capital.
- advancing technologies used to create better methods of extraction from nature that are not only cleaner but more contained in the amount of externalities they generate.

By the same token, those countries aspiring to the high standards of living achieved in the West must also be given a chance to catch up. Unfortunately, this could easily worsen the environmental health for all concerned.

The idea that the middle classes in India and China strive to emulate western consumption standards is already making environmentalists shudder. There is already considerable alarm about poor air quality in some of the big cities in India and China. Understandably, there is considerable push in the advanced nations for the development of clean energies and the adoption of tech-intensive manufacturing methods. Undoubtedly these are very beneficial in the long run.

Nevertheless, this is creating considerable tension in policy circles of late. This is not least because even the most legitimate concerns about the environment could also be interpreted as nontariff barriers.

• Note: Nontariff barrier refers to trade restrictions that take the form of anything other than a tariff. They could take the form of quotas, levies, embargoes, outright bans and sanctions. These are frequently used by the advanced economies of the world.

As it happens, a whole lot of international, public and private non-governmental organizations have already begun to tackle that very difficult question. There is a lot of effort being made to seek solutions to the environmental problems that routinely arise in our globalized existence. The most prominent organizations that come to mind are:

- United Nations Environmental Program
- Greenpeace
- Worldwatch Institute

These global organizations are excellent sources of information about what is going on in the environmental front. In addition, there is the Intergovernmental Panel on Climate Change (IPCC), a scientific body set up under the auspices of the United Nations in 1988.

Recently, the IPCC identified China, the U.S., the European Union, India, Russia, Japan and Canada to be the top carbon dioxide emitters in the world⁴. Note that all the parties involved are prominent players in the globalization dynamic which reinforces the idea that there is simply no way to regulate emissions without addressing how a country ultimately fares on the economic front.

8.10 POSSIBLE BACKLASH

Given that globalization pitches domestic economic priorities against those of global enterprise, there is always the possibility of a backlash.

If we are absolutely honest, the risk keeps growing every day as nations begin to feel increasingly susceptible to economic crises that may not always be blamed on external sources. It is not an exaggeration to say that the more monetarily integrated a nation is these days, the greater is the risk of market volatility.

Back in the 1930s and 1940s, global economic integration had swiftly moved into reverse gear thanks in large part due to:

- a hasty putting up of tariff barriers to close off markets
- the onset of a worldwide economic depression
- the eventual arrival of World War II

It is worth remembering that it took more than a quarter century after the Great Depression for globalization to return to the level it had reached in 1900.

More often than not, unwanted crises triggered by external sources create an immediate backlash against globalization. Broadly speaking, the possible sources of backlash could be:

- **economic** (e.g. impact of free trade and immigration on wages and employment of low-skilled workers)
- **political** (e.g. concern about loss of national sovereignty and ability of the government to solve economic problems)
- **social and cultural** (e.g. issues of fairness and social cohesiveness compromised by global forces)



- **health and security** (e.g. promotion of universal brands of beverages and fast foods replacing traditional diets and contributing to global epidemic of obesity)
- **environmental** (e.g. depletion of ecosystem services that are often underpriced and overexploited)

These are clearly serious concerns and it is quite possible that in future these might conflate into a ground swell of opposition to globalization.

The biggest problem facing globalization today is a combination of slower growth and falling prices. Some leading economists have begun to call it a deflationary cycle.

• Note: Deflation is a fateful combination of falling prices and falling wages. Technically it may be seen as negative inflation but as people begin to draw down their debt, no amount of credit expansion can bring the economy back onto stable path of growth.

It is often mentioned in the public media that Japan has been in the throes of deflation for nearly two decades while the Eurozone is already showing early signs of the same malaise. It is also not clear if the U.S. can completely escape the global economic drag altogether.

As may be expected, serious deflation can aggravate social tensions and trigger loud demands for income redistribution from the disaffected. Unfortunately, where incomes are already sharply polarized, it becomes very difficult to conduct meaningful dialog, let alone build political consensus.

In the not too distant future, if the U.S. yields to domestic political pressures to reduce its commitment to free trade then it is very likely that other nations will promptly follow suit. This means that globalization could very well unwind and that also, rather sharply.

It does not really matter how advanced our communication and transportation technologies are or how complex the trade and capital flows happen to be. A sharp retreat from globalization could still occur so long as:

- the political forces of protectionism and isolationism are allowed to gain strength
- nations unwittingly fall victim to the untoward forces of depression or war

At this point it is not clear if the U.S. as the most powerful economic nation will have the will power and wisdom to continue to remain committed to the bigger ideal of globalization.

8.11 FUTURE PROSPECTS

So long as we are increasingly pulled between the opposing poles of living healthy versus living comfortably and safely, globalization has no easy answers.

As we have already seen, securing economic growth often calls for:

- reconfiguring lifestyles toward relentless consumerism without which presumably growth cannot be sustained
- displacing entire communities (e.g. tribes and forest peoples) in the name of progressive development
- disrupting intact biospheres, often with irreversible effects

8.11.1 COLLECTIVE EFFORT

Consider for instance the intricate network involving agriculture, energy, industry, fisheries and tourism. These are all interlinked, especially as they are all dependent on water resources.

Evidently, without a coordinated effort, the competition between agricultural versus industrial and recreational water use could easily work at cross purposes. This calls for integrated water resources management which in turn calls for bigger state involvement.

In extreme cases, policymakers might propose strict consumption standards but this also poses a crucial challenge to the future of democratic deliberations. This is because it interferes with:

- consumption norms that are readily equated with one's sense of self and the fundamental right to free choice
- global media and advertising that constantly tend to magnify consumer needs and wants as a part of free expression

Thus it is not possible to address all concerns surrounding globalization without coming up against the question of individual freedom, be it concerning basic expression, personal choice or economic enterprise.

8.11.2 GOING GREEN

As it happens, over the last half century the consumption of global natural resources and water has grown at much faster rates than the global population. In response, some nations have tried voluntarily to shift to technology that minimizes the impact on the environment. This is of course a far better alternative than to confront individual self-expression head on.

The recent push for greener technology reflects that newfound sense of balance. Hence the growing campaign for clean energy technology involving solar, wind, nuclear, battery and clean vehicles. Encouragingly, renewable energy production around the world is said to have doubled from 2006 to 2011 (Broder 2012).

Along with a concerted campaign to use materials that are highly recyclable and free of many harmful substances there is the comparatively recent initiative to minimize electronic waste and to find newer ways to recycle computers and cell phones that regularly end up on the scrap heap.

The goal of all of these innovations is quite praiseworthy as they try to minimize the carbon footprint of all the products that we consume. Then again, there are challenges associated with any such an initiative⁵. This is because, any attempt to reduce the impact of consumption on the environment tends to:

- expand the scale of consumption since the environmental negatives content is reduced for each unit consumed
- create an accelerated rush to attain a certain level of development before a nation can afford a broad environmental initiative.



Thus the issue of responsible environmental management gets caught up in the matter of economic choices which in turn comes up against more vital questions about fair access to natural and environmental resources and markets.

This problem is not likely to go away anytime soon as more and more countries are encouraged to buy into the globalization formula of growth and development as laid out by the IMF, World Bank and the WTO. Understandably, there is a growing demand for creating a supranational body powerful enough to take charge of environmental governance while minimizing the chance of economic strife.

However, there also continues to be a lot of opposition to that initiative, most notably from the WTO. It is indeed ironic that the two countries that continue to oppose the creation of a world environmental organization to coordinate international environmental policies are the United States and China.

Questions

- 1. What is the nature of a trading paradox? Who are the primary players in the global market who set the rules of globalization? What happens to those nations that are not willing to conform all the time?
- 2. What is the difference between comparative advantage and competitive advantage? Under what circumstance could the two overlap?
- 3. What are the salient features of the "Asian miracle"? How does the miracle deviate from the orthodox vision of globalization?
- 4. Why is the formulaic path to trade-based development as promoted by the IMF, the World Bank and WTO not quite work out as expected?
- 5. Why is it that economists and economic historians consider the Chinese formula for export-led growth to be so unique in the world?
- 6. Why is policy coordination such a formidable challenge in the face of globalization?
- 7. What is a globalization paradox? What are some of its popular forms?
- 8. Why is policy coordination so important in the face of globalization? What are the difficulties that nations typically face in coordinating policies?
- 9. Given the nature of globalization as has been evidenced over the last three decades, how real is the possibility of a backlash? Why?
- 10. Explain the nature of a nontariff barrier? Why is it usually associated with welfare loss?

- 1. A good overview of the issues connected with the distance travelled by a typical food item is offered by De Weerdt (2009).
- 2. For optimistic takes on globalization look at Cowen (2009), Wolf (2005), Bhagwati (2004) and Friedman (2000). In contrast, more critical accounts are provided by Rodrik (2011), Stiglitz (2003) and Soros (2002), Wolf (2008), Soros (2002) and Stiglitz (2002). An early account of the possible negative social side effects of globalization may be found in Bauman (1998).
- 3. For more information on how hyperglobalization impacts on the domestic policies of nations see chapter 8 of Rodrik (2011), Stiglitz (2003) and Soros (2002).
- 4. The term "weightless economy" refers to a post-industrial economy where information technology and telecommunications are heavily relied upon to create marketable products. For a discussion of the characteristics of a weightless economy see Quah (1999).
- 5. The remarkable story of Amazon's global success may be found in *The Economist* (2014b).

- 1. A technical note from the OECD (2011) clearly outlines the benefits of lowering trade barriers and how that leads to productivity growth, higher real wages and more jobs.
- 2. For details on the current trends in trade and development look at UNCTAD (2011).
- 3. The 2009 *World Development Report* from the World Bank provides a very informative analysis about the long-term trend in transportation costs and how it has helped global trade.
- 4. Valladares (2014) discusses the huge potential of the derivatives market to precipitate another massive global financial crisis since the market remains largely unregulated.
- 5. Look at UNCTAD (2012) for details on recent global capital flow trends.
- 6. Scott (2014) discusses how currency manipulation tends to influence job creation around the globe.
- 7. Piketty (2014) focuses on the rising inequality in wealth and income in Europe and the U.S. He challenges the idea that inequality is a natural feature of market economies that cannot be effectively controlled.

- 1. See e.g. Krugman and Obstfeld (2002) on the absence of globalization talk from international economics.
- 2. For a discussion of convergence versus divergence consult Gilpin (2001).
- 3. Hirst et al. (2009) offer a good account of the view of the skeptics.
- 4. For a good grasp of the third wave in economic thinking see Martell (2007).
- 5. A good discussion of the tension between global monitors and transitional economics may also be found in Stiglitz (2003).
- 6. See chapter 6 in Ricardo (1817).
- 7. See chapter 7 in Krugman and Obstfeld (2002).
- 8. See p. 166 in Krugman and Obstfeld (2002).
- 9. See Callinicos (2009) for a discussion of the radical view on globalization.
- 10. See Hirst and others (2009).
- 11. Piketty (2014) produced a sensational analysis of the global spread of income inequality.
- 12. See Rajan (2011) for a good discussion of the stresses and strains produced by globalization of late.



- 1. Despite the International Energy Agency estimates that the world needs to add more productive capacity in order to meet growing demand, data on capacity are a well-guarded secret (King and Fritsch 2008); however, considering where global demand is these days, the supply crunch may have merely been postponed.
- 2. Amos (2007) provides a good summary of the dramatic forecasts from scientists in the U.S.
- 3. For important findings about the causes, effects and solutions to global warming see McGrath (2014) who summarizes the second report from the Intergovernmental Panel on Climate Change that outlines.
- 4. More recently, the United Nations Environmental Programme projected that in 40 years the world's oceans could be completely depleted of fish (see Klopsis 2010).
- 5. For up-to-date information on invasive species, the National Wildlife Federation, a non-profit organization in Virginia is a very useful source.
- 6. See BBC News (2010) for a summary account of the plight of the tribals in Orissa for whom forest living is an integral part of protecting their culture and heritage.
- 7. Kuznets (1955) hypothesized that income inequality first rises and then falls with economic development. The Environmental Kuznets Curve popularized by ecological economists suggests a similar relationship between environmental degradation and per capita income that resembles an inverted 'U'.
- 8. For more facts and figures on global water resources look at WWAP (2014).

- 1. Harding (2013) reports on structural shifts in the U.S. labor market as fewer than 20% of the losses in clerical jobs were replaced by managerial jobs. To add to it, the salaries of the fast-growing occupations have been lower than those they were replacing.
- 2. Labor issues are by far the most contested area of globalization. For a discussion see chapter 10 in Rodrik (2011).
- 3. Around 55% of the victims of forced labor are women and girls. Migrant workers and indigenous people are most vulnerable to forced labor according to the ILO (2012).
- 4. Apparently, the credit crisis of 2008 and the ongoing restructuring of the U.S. economy have altered business perceptions about cost-competitiveness (see Rapoza 2014).
- 5. A good outline of all the factors that are contributing to the reshoring of manufacturing to the U.S. look is available in *The Economist* (2013).
- 6. A wonderful illustration of how inadequate wages reappears as taxpayer obligation and becomes part of the public largesse is provided in (*Forbes* 2014).

- 1. Look at Häusler (2002) for details on how financial market integration around the world was set to change the structure of markets and create new risks and challenges for participants as well as policymakers.
- 2. Financialization is also being looked at these days as a possible cause of slow growth of the U.S. economy and a rise in income inequality. See Bartlett (2013).
- 3. In the special jargon of finance, the Burger King move is known as "tax inversion". Ferdman (2014) reports on the tax maneuvers that underlie the shifting outlines of corporate citizenship.
- 4. See Yardley (2015) for the latest account of the credit challenges facing Greece and where the country stands in relation to the bigger goals of the European Union.
- 5. The theory of secular stagnation was popularized again by leading economist Larry Summers. For a nice synopsis of the broader features of the problem look at *The Economist* (2014a).
- 6. See Saha (2014) for a grand overview of the critical issues surrounding TTIP that are being debated by economists.
- 7. For a discussion of the multinational interests forwarded by the Trans-Pacific Partnership which might lead to soaring drug prices around the world see Stiglitz (2015).

- 1. A good introduction to bank stress tests may be found in Eavis (2015).
- 2. A good discussion of the important role of shadow banking in the modern market economy and the need to regulate these institutions may be found in *The Economist* (2014c).
- 3. For an insight into the flash-crash phenomenon see Lewis (2014).
- 4. For an exposure to the broad reach of systemic risk see Morgenson (2014).
- 5. The financial crisis of 2008 provides a great backdrop for understanding Keynesian economics as explained by Skidelsky (2008) and Mankiw (2008).
- 6. According to global leaders, the storm clouds may be gathering again as became clear last year from a financial stability report from the IMF (see Thomas 2014).

- 1. For a discussion of the fate of comparative advantage under international capital mobility see chapter 6 in Ricardo (1817).
- 2. It remains a mystery how economists have for a very long time managed to deny that globalization had any impact on job loss and the stagnation of middle class incomes in the U.S. (see Alden 2012).
- 3. For a discussion of how globalization has managed to lift a bulk of the world population out of extreme poverty look at chapter 7 in Rodrik (2011).
- 4. Look at the fourth assessment report of IPCC that came out in 2007. It provides details on the distribution of the emission of CO_2 by major global contributors.
- 5. For instance, despite the excited talk about the green Macbook from Apple, the company was still placed at bottom of the green league table from Greenpeace. This was because of Apple's reliance on coal to fuel its electricity consumption at its data centers.



REFERENCES

REFERENCES

Alden, E 2012, 'Behind the New View of Globalization,' The New York Times, August 29.

Amos, J 2007, 'Arctic summers ice-free 'by 2013,' BBC News, December 12.

Bartlett, B 2013, ' 'Financialization' as a Cause of Economic Malaise,' *The New York Times*, June 11.

Bauman, Z 1998, *Globalization: The Human Consequences*, Columbia University Press, New York.

BBC News 2012, 'Global resources stock check,' Future June 18.

BBC News 2010, 'India rejects Vedanta plans to mine tribal land,' August 24.

Bhagwati, J 2004, In Defense of Globalization, Oxford University Press, New York.

Broder, JM 2012, 'Clean Technology on the Brink,' The New York Times, April 28.

Brookings Institution 2007, 'Top Ten Global Economic Challenges: An Assessment of Global Risks and Priorities,' *Brookings Global Economy and Development*, February.

Callinicos, A 2009, Imperialism and Global Political Economy, Polity.

Carus, F 2014, 'Apple named 'least green' tech company,' The Guardian, June 3.

Castells, M 1998, End of Millennium, The Information Age: Economy, Society and Culture, Vol III, Malden, MA, Oxford, UK, Blackwell.

Centre for Economic Policy Research 2013, 'Reducing Trans-Atlantic Barriers to Trade and Investment,' *Final Project Report for the European Commission*, September.

Cowen, T 2009, Create Your Own Economy: The Path to Prosperity in a Disordered World, Dutton, New York.

DeWeerdt, S 2009, 'Is Local Food Better?' World Watch, May/June, vol. 22, no. 3, pp. 6-10.

Eavis, P 2015, 'What to Know About Bank Stress Tests,' The New York Times, March 4.

The Economist 2014a, "Secular stagnation" in graphics,' November 19.

The Economist 2014b, 'Relentless.com: At 20 Amazon is bulking up. It is not-yet-slowing down,' June 2.

The Economist 2014c, 'The Lure of Shadow Banking,' May 10.

The Economist 2013, 'A growing number of American companies are moving their manufacturing back to the United States,' January 19.

The Economist 2012, 'Growing inequality is one of the biggest social, economic and political challenges of our time. But it is not inevitable, says Zanny Minton Beddoes,' October 13.

The Federal Reserve Board 2005 'Remarks by Governor Ben S. Bernanke,' *Sandridge Lecture*, Virginia, Virginia Association of Economists.

Ferdman, R 2014, 'Have taxes your way: Why Burger King wants to become a Canadian citizen,' *The Washington Post*, August 26.

Forbes 2014, 'Report: Walmart Workers Cost Taxpayers \$6.2 Billion In Public Assistance,' April 15.

Friedman, T 2000, Lexus and the Olive Tree: Understanding Globalization, Anchor Books, New York.

Gilpin, R 2001, *Global Political Economy: Understanding the International Economic Order*, Princeton University Press.

Harding, R 2013, 'US has lost 2m clerical jobs since 2007,' Financial Times, April 1.

Häusler, G 2002, 'The Globalization of Finance,' *Finance and Development*, IMF, March, vol. 39, no. 1, p. 10.

Hirst, P, Thompson, G and Bromley, S 2009 Globalization in Question, Polity.

International Labor Office 2012, 'ILO Global Estimate of Forced Labour: Results and Methodology,' Special Action Programme to Combat Forced Labor, Geneva.

IPCC 2007, 'Climate Change 2007: Mitigation of Climate Change,' Contribution of Working Group III to the *Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, Cambridge and New York.

King, N and Fritsch, P 2008, 'Energy Watchdog Warns of Oil-Production Crunch: IEA Official Says Supplies May Plateau Below Expected Demand,' *Wall Street Journal*, May 22.

Klopsis, N 2010, 'World's oceans could be completely depleted of fish in 40 years: UN report,' *Daily News*, May 18.

Korten, D 2015, When Corporations Rule the World, Berrett-Koehler Publishers.

Krugman, P and Obstfeld, M 2002. International Economics: Theory and Policy, Addison Wesley; sixth edition.

Kuznets, S 1955, 'Economic growth and income inequality,' *American Economic Review*, vol. 49, 1–28.

Lewis, M 2014, Flash Boys: A Wall Street Revolt, W.W. Norton & Company, New York.



Mankiw, N 2008, 'What Would Keynes Have Done?' New York Times, November 28.

Martell, L 2007, 'The Third Wave in Globalization Theory,' International Studies Review, vol 9, I2, 173–367.

McGrath, M 2014, 'Climate impacts 'overwhelming' – UN,' Science and Environment, *BBC News*, 31 March.

Minsky, H 2008, Stabilizing an Unstable Economy, McGraw-Hill, New York.

Morgenson, G 2014, 'Bailout Risk, Far Beyond the Banks,' New York Times, January 11.

OECD 2011, 'The Impact of Trade Liberalisation on Jobs and Growth: Technical Note,' *Trade Policy Papers* No. 107, OECD Publishing.

Piketty, T 2014, Capital in the Twenty-First Century, Belknap Press, Cambridge, MA.

Quah, D 1999, 'The Weightless Economy in Growth,' *The Business Economist*, vol. 30, no. 1, pp. 40-53.

Rajan, R 2011 Fault Lines: How Hidden Fractures Still Threaten the World Economy, Princeton University Press.

Rapoza, K 2014, 'Globalization's Old 'Race to the Bottom' Finds Unlikely Winners,' *Forbes*, August 19.

Reinhart, C and Rogoff, K 2011, This Time is Different, Princeton: Princeton University Press.

Ricardo, D 1817, Principles of Political Economy and Taxation, John Murray, London.

Rodrik, D 2011, *The Globalization Paradox: Democracy and the Future of the World Economy*, WW Norton & Company, London and New York.

Rostow, W 1960, *The Stages of Economic Growth: A Non-communist Manifesto*, Cambridge University Press, Cambridge.

Saha, D 2014, The Transatlantic Trade and Investment Partnership: Review of the debate on economic blogs,' VOX, CEPR's Policy Portal, July 20.

Scott, R 2014, 'Stop Currency Manipulation and Create Millions of Jobs With Gains across States and Congressional Districts,' *Report: Trade and Globalization*, Economic Policy Institute, February 26.

Skidelsky, R 2008, 'The Remedist,' New York Times, December 12.

Smith, A 1977 [1776], An Inquiry into the Nature and Causes of the Wealth of Nations, University of Chicago Press, Chicago.

Soros, G 2002, George Soros on Globalization, Public Affairs, New York.

Stiglitz, J 2015, 'Don't' Trade Away Our Health,' The New York Times, January 30.

Stiglitz, J 2003, *Globalization and Its Discontents*, WW Norton and Co, New York and London.

Thomas, L 2014, 'I.M.F. Warns of Global Financial Risk from Fiscal Policies,' *The New York Times*, October 12.

UNCTAD 2013, 'Global Value Chains: Investment and Trade for Development,' World Investment Report. United Nations Publication, Geneva.

UNCTAD 2012, 'Development and Globalization: Facts and Figures 2012,' United Nations Publication, Geneva.

UNCTAD 2011, 'Current Trends and Issues in the World Economy,' *Trade and Development Report*, Chapter 1, United Nations, New York and Geneva.

Valladares, M 2014, 'Derivatives Markets Growing Again, With Few New Protections,' *The New York Times*, May 13.

Wallerstein, I 1998, The End of the World as We Know It, The University of Minnesota Press, Minnesota.

Wolf, M 2005, *Why Globalization Works*, Yale Nota Bene, Yale University Press, New Haven and London.

World Bank 2009, 'Transport Costs and Specialization,' *World Development Report: Reshaping Economic Geography*, Chapter 6.

World Bank 1993, 'The East Asian miracle: economic growth and public policy,' *Report* # 1235, September 26.

WWAP 2014, 'Water and Energy,' The United Nations World Water Development Report, UNESCO, Paris.

Yardley, J 2015, 'In Greek Crisis, Rare Moment of Consensus,' The New York Times, February 24.

