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THE EVOLUTION AND UNFOLDING OF FINANCIAL GLOBALISATION

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CONTENTS

1. Economic and Financial Globalization
    - 1.1 Global Capital Flows and their Implications
    - 1.2 A Matter of Definition
    - 1.3 Measures of Financial Globalization
2. Financial Globalization: The Preceding Periods
    - 2.1 Ancient Periods
    - 2.2 Contemporary Period: The First Era of Globalization
    - 2.3 Gold Standard Monetary Regime
    - 2.4 Proliferation of Financial Globalization
    - 2.5 Utilization of Financial Resources
    - 2.6 Melancholy Period of De-Globalization
    - 2.7 The Bretton Woods Systemand the Eurodollar Market
    - 2.8 The Great Moderation: The Post-Bretton Woods Era
3. Engendering Partial Convergence
4. Latter Half of the Twentieth Century
    - 4.1 Asymmetric Initiation
    - 4.2 Proliferation of Prosperity
    - 4.3 Global Economic Integration through Upgradation of Policies and Institutions
5. Shifting Gears of Globalization: The Second Era of Globalization
    - 5.1 Neo-Liberal Policy Environment
    - 5.2 Principal Drivers of Financial Globalization
    - 5.3 Impact on Financial Integration
6. Global Capital Movement and Trade in Financial Services
    - 6.1 Prominent Attributes of Financial Globalization
    - 6.2 Learning from the Emerging Trends
    - 6.3 Information Technology and Financial Markets
7. Innovation through Securitization
8. Destabilizing Impact of Financial Globalization
    - 8.1 Financial Crises Then
    - 8.2 Financial Crises Now
9. Contemporary Global Integration and Expanding Middle-Class
10. Summary and Conclusions

Financial globalization is not a choice, it needs to be the focus of the next greatglobalization.
~F.S. Mishkin (2006) *The Next Great Globalization,* p. 16.

1. Economic and Financial Globalization

Neither the concept nor the phenomenon of economic or financial globalization can be considered as novel.[1] History of evolution and globalization of finance stretches over an extended period, ranging from its recorded origin in the villages of Mesopotamia 5,000 years ago to sparkling numbers on foreign exchange screens in the financial markets of today.[2] The global economy has undergone several waves of rapid and sluggish globalization as well as de-globalization. As for the contemporary phase of globalization, many economic historians believe that it set off around 1980, although Mundell (2000) disagreed.

Progressively increasing cross-border trade in financial assets gives rise to what is called financial globalization. It is the phenomenon of rising trans-border financial flows through various channels, in effect integrating the financial markets into a global whole. During the decade of 1990s concept of globalization acquired a great deal of currency, relevance, acceptance and emotive force. Globalization became a defining economic mega-trend. With that financial globalization consolidated, strengthened and became more innovative. Taken as a whole, financial globalization also accelerated in the post-1990 period and proliferated widely in the global economy. The structure of global financial markets underwent marked transformation in the post-1990 era.

A salient characteristic of the current phase of financial globalization is internationalization of financial services. In addition, financial transactions and securitization became increasingly innovative, affecting both domestic financial markets and the global. New financial innovations of this period, that essentially took place in the United States (US),helped accelerate financial globalization. Digitalization and computerization of the global financial sector went a long way in proliferating these innovations. They were subsequently excoriated for being instrumental in setting off the global financial crisis of 2007-09, severity of which was frequently compared to that of the Great Depression.[3]In the first half of 2009 the global economy was in recession and many systemically important economies had their banking and financial systems in utter disarray. Financial assets prices crashed and in many countries real asset prices also collapsed (Highfill, 2009). The crisis and recession were responsible for the current trend in financial deglobalization. Crises of this dimension are vigorous and authoritative events and have momentous impact over the global economy and finance. The current one is shifting financial tectonic plates in the global economy. The crisis and nascent recovery that began in later

[1] The two expressions “financial integration” and “financial globalization” are being used interchangeably here. Both of them are aggregate concepts implying progressive integration of individual economies with global markets.
[2] Chapter 1 in Das (2009) provides a succinct historical account. See also Ferguson (2008).
[3]The global financial crisis of 2007-09 is referred to in the financial media as the crash of 2008.

2009 altered the economic and financial landscape of the global economy in numerous ways.

From an economic point of view, globalization represents a process of increasing international division of labor on the one hand and growing functional integration of national economies through trade in goods and services, cross-border corporate investment, and capital flows on the other. Experiences of the post-World War II period demonstrate that there is serendipity in globalization. Notable in this regard is the performance of the emerging-market economies (EMEs)[4]. This group of economies discernibly and measurably benefited from globalization during the preceding three decades. The ascent of East Asian and the four BRIC economies was a prominent global economic event of the contemporary period.[5] In particular, China's globalization and vertiginous growth—and moving to the center of the global economic stage—are developments of enormous relevance and consequence (Das, 2008a). During the early phase of the 2007-09 financial crisis, expectations were that China and the other three BRIC economies would function as a locomotive of global growth and pick up the slack. Subsequently, as the crisis grew more severe, these expectations were belied.

Globalization did result in economic and financial convergence. Evidence of certain number of cases of convergence exists for the late 19th century and the latter half of 20thcentury (Williamson, 1996).[6] However, none of the periods of globalization resulted in universal convergence. Interesting parallels between the financial globalization of the late 19th and the late 20th centuries are easy to recognize. Over the 1850-1914 period the erstwhile developed economies, like Britain, Franceand Germany, were financing infrastructure as well as extractive industries and plantation sectors in the underdeveloped world as well as in the so-called New World

[4]The term emerging-market economy (EME) was coined in 1981 by Antoine W. van Agtmael of the International Finance Corporation, the private sector arm of the World Bank. The developing countries in this category are far from homogeneous and vary from small to large, even very large. They are characterized as emerging because they have adopted market-friendly economic reform programs, resulting in sounder macroeconomic policy structures. China is the largest and most important EME, along with several smaller economies like Tunisia. The common strand between these two economies is that both of them embarked on reform programs and consequently recorded rapid GDP growth. Both of them have liberalized their markets and are in the process of emerging onto the global economic stage. Sustained rapid clip GDP growth is the first indispensable characteristics of an EME. Many of them are in the process of making a transition from a command economy framework to an open market economy, building accountability within the system. The Russian Federation and the East European economies that were part of the Soviet bloc in the past fall under this category. Secondly, other than adoption of an economic reform program, an EME builds a transparent and efficient domestic capital market. Third, it reforms its exchange rate regime because a stable currency creates confidence in the economy and investors in the global capital markets regard it as fit for investment. Fourth, a crucial feature of an EME is its ability to integrate with the global capital markets and attract significant amount of foreign investment, both portfolio and direct. Growing investment—foreign and domestic—implies rising confidence level in the domestic economy. Global capital flows into an EME add volume to its stock market and long-term investment into its infrastructure. For the global investing community the EMEs present an opportunity to diversify their investment portfolios. Investing in the EME gradually became a standard practice among the global investors who wished to diversify, although they added some risk to their portfolios.

[5] The acronym BRIC stands for Brazil, the Russian Federation, India and China. It came in use in 2001 for the emerging economic powerhouses.

[6] See section 3.

economies (section 2.4). This group of economies includedAustralia, Argentina, Brazil, Canada and the US. In comparison, since 1990 the East Asian economies, in particular China, were busy financing consumption in the high-income industrial economies like the US. The other three high-borrowing debtor countries were Britain, Ireland and Spain (section 6.1).

The objective of this paper is to elucidate on the evolution, spread and unfolding of global integration, in particular financial globalization, since the mid-19th century. While the primary focus is financial globalization, it cannot be totally extricated from economic globalization. This paper provides a preamble and essentially delves into the principal characteristic features of financial integration and related global economic developments. Unquestionably global economic integration, in particular financial globalization, had made impressive strides during the pre-World War I period and it has been extensively covered in globalization literature. However, economic and financial globalization in the contemporary period for the most part surpassed that in the preceding periods by a sizeable margin.

1.1 Global Capital Flows and their Implications

Economic theory posits that net capital flows should be from the high-income industrial economies to the have-not economies. Within the neo-classical paradigm, capital flows from where it is to any place where it is not and therefore its marginal product is higher. This results in more efficient allocation of capital. The outcome of such a free flow of capital across national borders would be higher global welfare. Economic theory stipulates that financial globalization confers a number of potential benefits. As trans-border capital flows through various channels increase, economies tend to progressively integrate globally. They operate as a means of financial globalization. The financial structures of both capital exporting and those of host economies as well as the world of capital and finance markets *paripassu* tend to change. One of the most significant implications of financial globalization is extremely rapid expansion of international liquidity. There has been an enormous increase in liquid assets available to participants in the global capital markets.

A few decades ago, when the contemporary phase of financial globalization was in its formative phase, a businesspersonwas restricted to borrowing from her domestic market. For the most part, domestic financial markets were where economic agents went for their financial transactions. This is no longer the case. In case she operates in an EME, which by definition is relatively more liberal to capital movements and have access to the private global capital markets, her business firm can exploit and benefit from financial globalization. Several options are presently open to her. For instance, she can choose between issuing stocks and bonds in the domestic or foreign financial markets. She can reduce her cost of capital if foreign currency loans are available at more attractive terms than the domestic loans.

An apt option for this entrepreneur can be selling equity at foreign bourses, which are far more liquid than the domestic ones. A new liquid channel for capital is not the only advantage of financial globalization. The loans can be hedged by using a variety of formerly unknown financial products. The global financial markets are vastly more accessible today than they were two decades ago. In addition, global financial markets offer much superior risk management opportunities now than they did in the recent past.

Financial globalization leads to several primary and beneficial macro- and microeconomic outcomes. On the macroeconomic side, a creditworthy developing economy that has access to the private global capital markets can improve its investment level and allocation of funds to potentially productive projects, in the process increasing its total factor productivity (TFP) and thereby underpin GDP growth. One of the direct effects of financial globalization is imposing discipline over the developing country governments, make them upgrade and fine tune macroeconomic policymaking, and adopt pro-growth reforms and promote a market-friendly business ambiance. This would not only advance income enhancing prospects across the board but also alleviate poverty. Thus, financial globalization can potentially lead to pro-poor growth. On the microeconomic side, it strengthens corporate governance in the financial institutions. The decision makers compete for the most efficient and productive utilization of financial resources that they are managing.

Although some of the above-mentioned benefits did materialize, they did not do so universally. In addition, perceptive and clairvoyant thinking requires that the downside of financial globalization not be ignored. It has frequently been found culpable of creating serious crisis situations in countries, regions and globally. Financial globalization put a serious question mark on the market mechanism. The sub-prime mortgage crisis in the US, that was triggered by a dramatic rise in mortgage delinquencies in 2006 and 2007, in a short time span developed into the first global financial crisis of the twenty first century, leading to a global recession (Felton and Reinhart, 2008).[7]

1.2 A Matter of Definition

Although the term globalization gained currency recently, it is an ancient phenomenon and concept. It has inspired different kinds of analyses and research in the academe. They have traversed in different directions and engendered a rich mosaic of concepts, diagnoses and theories. Recent literature on globalization is by any measure enormous. Academics from different disciplines focus on different kinds of globalizations. In this multifaceted concept, economic and financial globalizations are two of the most important aspects.[8] Put plainly, globalization unleashes market forces and facilitates Adam Smith's invisible hand to operate globally. It eradicates market barriers, eliminates countervailing pressures from governments and unleashes competitive forces.

A functional definition of financial globalization is integration of domestic financial system of an economy with the global financial markets and institutions. It entails increasing global linkages through trans-border financial flows. It implies liberalization of international transactions in financial instruments by a large number of integrating economies. Enabling framework of financial globalization essentially entails liberalization and deregulation of the domestic financial and banking sector as

[7] The origin of this crisis was the bursting of the housing bubble in the United States (US). The US housing market peaked in 2006. The global economic and financial crisis that followed was the most severe since the Great Depression. In an interview on the CNN on May 4, 2009, Waren Buffet called it the "economic Pearl Harbor".

[8] Das (2009) provides a detailed discussion on various facets of the definition of globalization.

well as liberalization of the capital account, which implies a free flow of funds in and out of a country's economy.

Financial integration occurs when liberalized economies experience an increase in cross-border capital movement and they make a widespread use of international financial intermediaries. This process strengthens an individual country's linkages to global capital markets. In a globalized financial environment domestic lenders and borrowers participate in the global markets and utilize global financial intermediaries for borrowing and lending. The resulting trans-border capital flows tend to integrate the domestic and global financial markets, institutions and systems.[9]

The advanced industrial economies are the most active participants in the global financial markets and also the most financially globalized. Participation of some groups of developing economies has grown and became substantial. Secondly, one of the most significant aspects of financial globalization is rapid growth of international liquidity. There has been an enormous increase in liquid assets available to global market participants. Third notable feature is the recent transformation in the borrowing and lending groups of countries. Some large borrowers of the past have turned into the new lenders of massive amounts of capital. An overarching feature is the flow of capital from the have-not, low-income, countries to the high-income industrial countries. Fourth, new players, like the sovereign-wealth funds (SWF), mutual funds and hedge funds have emerged on the global financial stage. These institutions are awash with liquid resources and are the new financial heavyweights that are changing the structure and character of the global capital and financial markets as well as capital movements (Das, 2008b; MGI, 2008).

1.3 Measures of Financial Globalization

Stock and flow measures of external assets can provide a good quantitative idea of the degree of financial globalization or financial integration. That is, the size of the gross stocks (assets plus liabilities) of external finance can be one kind of measure, while the second could be the potential for net (assets minus liabilities) flows, or the difference in saving and investment flows. Thus, the first concept is the measure of stocks while the second is of flows. Thirdly, enhancing financial globalization or financial integration should logically lead to the absence of arbitrage opportunities between returns on assets in different countries. This can provide another measure of financial globalization. The measures based on these premises can be divided into three broad categories:

(i) Quantity-based measure: It is the most widely applicable and accepted measures. It is a gross measure, therefore, the sum of external assets and liabilities, expressed as proportion of the GDP (Lane and Milesi-Ferretti, 2007).

(ii) Saving-investment correlation: In an autarky, investment must equal domestic savings, but the two can differ in an economy having access to global capital markets. Therefore saving-investment correlations have been utilized to measure the extent of financial globalization. Measure of the size of net financial flow is closely related to it. The current account surplus is the difference between saving and investment. However, this measure has a drawback. The Feldstein and Horioka puzzle posited that

[9] See Das (2003a) for more details.

saving and investment are highly correlated even for groups of countries that have access to global capital markets.

(iii) Price-based indices: In a financially integrated global economy, no unexploited opportunities of arbitrage should be available in trade and financial markets. Therefore, prospective returns on financial instruments in different countries should be "a natural gauge of the extent of international financial integration" (IMF, 2008a; p. 5). A good example of these financial instruments can be covered or uncovered interest rate parities. There are several problems hampering measurement and utilizing price-based indices. Cross-country differences in risk and liquidity premia is one on the principal problematic issue.

2. Financial Globalization: The Preceding Periods

Economic globalization has continued since ancient period. Although scholarly academic research in this area is availableplentifully, I shall concisely mention the historical developments of the ancient and periods.

2.1 Ancient Periods

Several erudite accounts of financial globalization over the preceding two centuries are available in literature[10], however, it is essential and relevant to present a succinct account of it here. The Arab conquests of seventh and early eight centuries united the Mediterranean world of Rome and its ancient empire with Mesopotamia and Iran. They also united the Byzantine possessions of Egypt, Syria, Palestine and North Africa (Elliott and Lemert, 2009). This was the Islamic golden age and an example of ancient globalism, when traders successfully established a rudimentary form of global economy. Trade in goods and migration of people took place freely. Both exchanges of ideas and technique were also common.

Two-way flows of ideas and knowledge took place between the east and west "in one vast integrated space united by Islam and Arabic language" (Findlay and O'Rourke, 2007; p. 48). The Islamic golden age matured and became fairly complex during the Mongol Empire of Genghis Khan and Kublai Khan. This epoch witnessed globalization of crops, commerce, knowledge and technology. The Mongol Empire, one of the largest continuous empires in history, was responsible for a strong wave of economic globalization.[11]Marco Polo (1254-1324), the most famous traveler of the Silk Road, was a veritable trading entrepreneur. He was the most famous traveler and trader of his period. He found new products and developed markets for them. He became a confidant of Kublai Khan. He provided detailed accounts of the economy of the Mongol Empire, which by his account was prosperous.

The Ming Dynasty (1368 to 1644 AD) of China, the last dynasty ruled by ethnic Hans, played an important role in economic globalization. Not only neighboring countries had trade and tribute-paying relations with China during this period but also distant European countries like Portugal, Spain and Holland had active commercial ties. Abu-Lughod (1989) provided comprehensive accounts of the voyages of the

[10] For instance see Crafts (2000), Obstfeld and Taylor (1999 and 2003), Bordo, *et al* (1999a), Mussa (2000) and Frieden (2007).

[11]After Kublai Khan's conquest of southern China in 1279, the Mongol empire extended from the coasts of southern Siberia, Manchuria, Korea and China down to Amman in the east, to Hungary and Belarus in the west. It covered India, Indochina, the Persian gulf and Turkey.

Ming Dynasty admiral Cheng Ho (or Zheng He) until the early decades of the fifteenth century.The two voyages of discovery by Christopher Columbus, Vasco da Gama, at the end of the 15th century, expanded trade and economic ties over large distances. These voyages were made possible by advances in European ship-building technology and the science of navigation. They have an eminent place in the history of globalization.

2.2 Contemporary Period: The First Era of Globalization

Beginning around mid-19th century and going up to the out break of World War I, economic and financial integration of the global economy took place at an unprecedented pace. Economic historians regard it as the "first era of globalization" (Aizenman, *et al,* 2007; p. 657). The 1870-1914 represented "the high water mark of the 19th century globalization" (Daudin, *et al* 2008; p. 2). This period is known for an unparallel free flow of goods, capital, technology and ideas across international borders. It is known particularly for a large scale global migration. Global economy operated during this period under the gold standard monetary regime, which is discussed below (section 2.3). Integration of global capital market made impressive progress during the first era of globalization (section 2.4).[12] Financial globalization of this era was impressive by any measure. There were few restrictions on cross-border financial flows. More than 60 governments raised capital by floating bonds in London, Paris and Berlin. Shares of business firms from almost all continents and sectors were listed on European exchanges. London was the largest and leading financial center.

Intellectual, philosophical and political climate of this period supported creation of an overarching liberal world order. This change in the global policy mindset was more significant than the adoption of the gold standard*per se*. There was little government intervention in the markets in the principal economies of this period. Private financial and commercial activities operated more or less unhindered and both skilled and unskilled labor moved around globally almost uninterrupted. Although this can be regarded as an era of economic *laissez-faire*, there existed some tariff barriers and inconsequentialregulations on migration. Pervasive economic freedom and liberalization of the late 19thand early 20th centuries seems remarkable from the perspective of the achievements in the 21st century.

2.3 Gold Standard Monetary Regime

Under this regime countries voluntarily backed their money with gold at a fixed rate of exchange. The 1870s were the formative period of this classical gold standard. During the 1880s a good number of countries adopted gold standard. In 1890, this number was large. The World War I had destroyed the global financial system. Governments radically altered exchange rates and price levels and also imposed exchange controls. European countries tried to re-peg their currencies to gold. After 1925 a fleeting gold-exchange standard was established.This monetary regimebegan disintegrating in 1931 (section 2.6).

The classical gold standard monetary regime made momentous contribution toeconomic and financial globalization of this period. Under this monetary regime the

[12]A classic account of financial globalization during the 19th century has been provided by Herbert Feis (1930). Das (1986) also analyzes it in chapter 1. A recent scholarly work that addresses this issue is Mauro, *et al* (2006).

value of a national currency was determined in a fixed weight of gold. For all appearances this was a simple act. It had broad and far-reaching implications for the domestic and global economy. The fixed exchange rate provided a stable and credible monetary regime. It proved to be a functional and disciplining device. By adopting gold standard countries gave their tacit approval to playing by "the rule of the game", which entailed unrestricted movement of gold, the basic monetary asset. Also, currency notes were freely convertible into specie and vice versa.

The large trading nations of this period swiftly adopted gold standard and its orbit expanded to become near universal. This was the era of *PaxBritanica*. Near universal acceptance of gold standard was made possible by the British leadership. The gold standard supplanted silver and bimetallic standards that had operated before the dawning of the gold standard. It is widely acknowledged that during the pre-1914 period, "gold standard orthodoxy conferred credibility and was a *sine qua non* foraccess to global capital markets on favorable terms" (Obstfeld and Taylor, 2003; p. 241).

The Bank of England played a crucial role in running the gold standard. Its credible commitment to convertibility gave investors confidence to move funds globally rather than worry about gold movements. Financial crises during the gold standard era had a different effect on economies from the ones today. During a crisis gold inflows increased in the crisis-stricken country. Crisis led to a fall in the prices of the domestic assets. Market participants expected both exchange rate and asset prices to eventually return to the pre-crisis levels. It was reasonable because of governments' commitment to the gold standard. This caused a boost in the inward movement of gold (Steil, 2006).

The 1880-1913 was the classical gold standard period, when a global fixed exchange rate system reigned. The resulting low exchange rate volatility made business more fluid and less costly for traders and financiers who operated globally. At the turn of the 20th century this gold standard monetary regime was functioning smoothly and facilitated expansion of trade, payments and capital movements. The classical gold standard contributed to smooth equilibrium of balances-of-payments in the global economy. They were kept in equilibrium at fixed exchange rates by an adjustment mechanism that functioned with "a high degree of automaticity" (Mundell, 2000, p. 328). This was a period of economic liberalism and little regulation. Consequently, the first global marketplace in goods and capital came into being. Obstfeld and Taylor (2005, p. 123) called it "an era of undisputed liberalism and virtual *laissez-faire*". Although global capital markets were established at this point, participation in them was far from global.

The gold standard conferred a "seal of approval"[13] in the sovereign bond market. Conversely, the gold standard of inter-War era was somewhat less credible than that during the pre-1914 period. How much less credible was it remains a contentious point. By comparing bond spreads during the pre-1914 and the inter-War period, Bordo*et al* (1999b)concluded that the gold standard still remained a "seal of approval" when a country returned to its pre-War exchange parity with gold. Such a return to gold standard resulted in lowering of bond spread for this country. During

[13] An expression first used by Obstfeld and Taylor (2003; p. 241).

the late 19th and early 20th century, the gold standard linked every country in the world to a common and stable monetary order. This indisputably contributed to the global economic and financial integration of this period.

Gold standard was established with relative ease. By 1910, all the important economies had accepted it. Driven by increasing-return, this institutional device was readily adopted by an increasing number of countries in the 1890s and early 1900s. How this capital market developed "and the convergence by many different nations on a single monetary standard is well known, and it exhibits all of the "networked externality" properties" (Frieden, 2007; p. 126). Global capital markets came into being, with London developing as the most important financial center of this era (section 2.2). Amsterdam, Berlin, Paris and New Yorkalso developed into significant financial centers. Berlin and Paris rivaled London's position in sovereign loans. In addition, Buenos Aires, Melbourne, Mexico City and Rio de Janeirodeveloped as smaller financial centers. In this liberal global policy ambiance, capital market operated in an unfettered manner. Neither there were any transaction fees nor any restrictions over trans-border movements of financial assets (Schularick, 2006).

Large global movements of capital occurred during this era. The so called "open economy trilemma"[14] (dealt with in section 2.5) was resolved in the gold standard era by opting for fixed exchange rate and free capital mobility, often at the expense of the domestic macroeconomic health. Contrary to what we observe now, short-term capital movements during this period of financial globalization played a highly stabilizing role. Economies financed their trade deficits through short-term capital inflows stimulated by modest rise in short-term interest rates. Britain grew into the largest capital exporter, exporting almost a half of its total domestic savings by 1914. At this point, capital outflows from Britain reached 9 percent of the GDP. France, Germany and the Netherlands were nearly as large capital exporters as Britain. Capital importing countries of the so-called New World had large current account deficits, which hovered around 10 percent of their GDP.

2.4 Proliferation of Financial Globalization

Global capital markets during the 19th century—until 1914—were considered essentially benign and capital market integration advanced in an impressive manner. As stated above (section 1.1), in keeping with the classical economic principles, the role of the governments was restricted to facilitating their operations and to that end providing an infrastructural framework. Governments did not believe that regulating and controlling financial market operations was their métier. There was little in the name of supranational institutional structure. The principal systemic features were limited to the gold standard monetary regime and the national central banking authorities.

Maritime transport innovations of this period, namely steel hull ships, steam propulsion and screw propellers, had ushered in a flourishing transport revolution. As these ships replaced the earlier wooden ones, cost of transporting goods plummeted markedly, speed increased several times and safety in travel improved remarkably.

[14] This expression was first used by Obstfeld and Taylor (1998).

Also, risk in trans-Atlantic travel reduced substantially. These improvements in the transport technology continued into the 20th century.[15]

This steady decline in the cost of transportation took place with another important development, declining tariff rates. Consequently both international trade and the number and variety in traded products expanded enormously in a short time span. Towards the end of the 19th century, multilateral trade expanded at a rapid rate, 3.5 percent annually. This was significantly higher than the growth rate of world output, 2.7 percent per annum. Exports as a proportion of world output peaked in 1913; this level of world exports was not surpassed until 1970. Also, the pace of migration during this period was high. Decadal outward migration rate during the, 1880s, 1890s and 1990s was estimated at between 5 to 7 percent of population in several European economies. Inward migration ranged from 4 to 9 percent of the population in the US. The proportion of inward migration was higher in the other New World countries (Masson, 2001).

The European economies that had made notable progress in post-industrial revolution industrialization were the prosperous economies of this period. They turned into the bankers of the world during the latter half of the 19th century and early 20th century. The New World economies had easy access to European capital and they prospered with its inflows. Also, there was smaller but significant flow of European capital to the economies of South, Central and Eastern Europe. Edelstein (2004) estimated that in 1913 32.1 percent of net national wealth of Britain was held in countries where it made investments. These statistical data for France and Germany are not available but they also invested substantively large amounts of capital. Over the 1870-1913 period, Britain was responsible for 41.8 percent of total global foreign investment. For France and Germany the corresponding proportion was 19.8 percent and 12.8 percent, respectively (Maddison, 1995).

In the mid-19th and the early 20th centuries, an important feature of financial globalization was the activities of the transnational corporations (TNCs). Towards the end of the 19th century and during the period before the First World War, TNCs were globally active players responsible for the spread of market-driven economic and financial globalization. Book value of foreign direct investment made by the TNCs as a proportion to world GDP was computed by Obstfeld and Taylor (2004). The global stock of foreign direct investment (FDI) in current dollars was $14 million in 1914. Likewise, foreign portfolio investment also increased rapidly until the First World War. Obstfeld and Taylor (2004) put the value of foreign portfolio investment at a low of 6.7 percent of the world GDP in 1870. It rose to 18.6 percent by 1900 and remained at 17.5 percent in 1914.

An obvious division of labor was reflected in the world trade of this period. The so-called New World economies had comparative advantage in exporting food grains because of abundant availability of arable land to them. In turn, the industrialized

[15]Discussing the real beginning of global integration, O'Rourke and Williamson (2002) argue that this was the time point when globalization really began. It was essentially triggered by a dramatic reduction in freight and transportation costs. They found evidence for reaching this conclusion by analyzing and making connections between factor prizes, commodity prizes and endowments world wide.

economies of Europe exported manufactured products to these and other countries. By this time, the Industrial Revolution had made a great deal of progress and the industrially advanced economies of Europe had a massive demand for the import of bulky raw materials, like bauxite, coal, nitrates, oil and rubber. Expanding manufacturing and trade in textiles had also created a large demand for cotton, silk and wool.[16]

Capital market integration was never a linear, ever-increasing, continuous process. It subjected many distinct reversals. The Baring crisis of 1891 was responsible for the stopping financial globalization in its tracks. One of the most conspicuous periods in this regard is the inter-War period. During the de-globalization period that followed the First World War,global investment declined dramatically. Foreign assets declined to 8 percent of world GDP in 1930 and further down to 5 percent in 1945. They did not begin recovering immediately after the World War II ended and were a measly 6 percent of the world GDP in 1960. This state of affairs began to change in the 1970s and in 1980 they soared to 25 percent of world GDP. Trans-border capital flows steady climbed after this point; foreign assets soared to 25 percent in 1980, 49 percent in 1990. The decade of the 1990s proved to be one of high growth of financial globalization. Foreign assets climbed further to the high perch of 92 percent in 2000 (Obstfeld and Taylor, 2004). Going by these statistical data, the pre-1914 level of global financial integration was not reached until sometime in the 1970s.

Using another measure of financial globalization, this U-shape trend was confirmed by Feldstein and Horioka (1980). In a closed economy both domestic saving and investment are closely linked. This link is broken by trans-border capital movements. That is, domestic savings can be invested abroad, while domestic investment can be augment by external savings. Therefore, the weaker the relationship between domestic savings and domestic investment, the higher is global capital movements and the stronger is the financial globalization. This measure of financial globalization also produces a U-shape.

2.5 Utilization of Financial Resources

An interesting comparison between the past and the present can be drawn here. The directions of both portfolio investment and FDI at the beginning of the 20th century and that at the end were completely different. In the pre-World War I era, major borrowing sectors were transportation, infrastructure and government. Industry and financial sectors were absolutely minor borrowers. In contrast, during the 1990s finance was a major borrowing sector from the global capital markets in the EMEs, whereas infrastructure and transport were absolutely minor. One plausible reason behind this change in direction is that the twin problems of asymmetric information and contract enforcement were markedly reduced during the contemporary period compared to those during the pre-World War I era.

In comparison to financial globalization during the present period, the one during the pre-World War I era was somewhat narrow. Only a small number of countries and sectors participated in financial globalization. This era is known for large immigration. Capital flows for the most part followed the migratory trend. Also, capital flows were

[16] Both Bairoch (1989) and Williamson (2002) provide a detailed analysis of trading pattern of this period.

generally directed towards trade flows. Long-term bonds were the most popular instrument. Also, large international investments were made by a small number of freestanding companies and the TNCs. These characteristic features of financial globalization at the beginning of the 20th century make it fairly different and less comprehensive from that during the contemporary period. That being said, the extent of capital mobility was comparable to that of the present period.

A well-known textbook argument is that open economies face a macroeconomic policy trilemma (section 2.3). Of the three policy objectives, namely, independence in monetary policy, stability in exchange rate and free movement of capital, only two can be achieved simultaneously. This has immense policy implications. Policy makers in an economy choose the two objectives they value most and let the third be determined based on the value of the two that are being controlled.[17] Early in the 20th century, independence of monetary policy was eschewed by the governments of the industrial economies. This was due to the fact that the politicians did not have control over level of domestic economic activity and they did not care much for the votes of the working classes. However, during the crisis decade of the 1930s (discussed below in section 2.6) following an independent monetary policy became all important policy objective for these very economies.

2.6 Melancholy Period of De-Globalization

Although the 20th century had begun with a "highly efficient international monetary system" and busy capital markets, they were destroyed by the World War I. Mundell (2000, p. 329) believed that the "bungled recreation" of the gold standard in the interwar period "brought on the Great depression, Hitler and World War II". Also, the prevailing attitude towards liberalization of global economy as well as belief in the role of the market forces and the *laissez-faire* philosophy (alluded to in section 2.2) ended at the beginning of the World War I. This was an important time point in recent economic history. Global economic and financial integration catastrophically reversed at this point.

However, whether out break of a major war that involved the largest economies of the period was the cause of this reversal in global integration—including financial globalization—cannot be determined with certainty. History does not spell out whether disintegration of the global economy was driven by cataclysm of such a large magnitude, or it was possible by lesser events as well. It remains an unanswered question whether democratic policies, and actions of legislatures, can also interrupt globalization and set it back. One factor contributing to and exacerbating the disintegration of the global economy was the inability of the erstwhile global geopolitical and economic power, Great Britain, to exert its leadership in the economic affairs. The US was the rising economic power and had surpassed Britain in absolute economic size in 1870, as an exporter in 1915 and as an international creditor in 1917, but it was unwilling to exert its leadership (Eichengreen, 2008).

During the inter-War period, stringent capital controls became rampant. This change in the mindset of the public policy professionals marked the termination of the first era of globalization. The gold standard system of fixed exchange rate was

[17]See chapter 22 in Krugman and Obstfeld (2008).

abandoned and a flexible or floating exchange rate regime was adopted. This regime did not function efficiently and resulted in a great deal of disorder and confusion in the global economy. Exchange rate devaluations became the order of the day. Countries did not shy away from the beggar-thy-neighbor kind of devaluations. If anything, they took it to an outrageous extreme. A good deal of culpability for confusion and inefficiency during the inter-War period went to restoration of the gold standard in the 1920s, which was “mismanaged” (Mundell, 1960, p. 327). This period of economic history was uniquely surfeited with problems both for individual industrial economies as well as collectively for the global economy. It was also blighted by non-cooperation among the systemically important economies, to the detriment of the entire global economic system.[18]

Britain, a leading economy of this era, went off the gold standard in early 1931. Speculative runs on the pound sterling were so frequent that it became difficult to remain on the fixed exchange rate regime. Soon other countries began emulating Britain; 13 of them abandoned the gold parities of their currenciesin 1931. The US did not abandon gold standard until 1933. Bearing in mind their domestic economy related objectives many of these economies depreciated their currencies. They espoused policy measures that commonly accompany such a policy regime. These measures included rigorous trade and capital controls. Throughout the 1930s, independent management of exchange rates and domestic policies was assigned high priorities by the large economies. The two principal channels of global integration, trade and finance, were throttled and the global economy moved towards an autarky.

A melancholy, if not downright depressed, period of de-globalization ensued. It is variously described as a period of reverse globalization, disintegration or divergence The Wall Street crash of October 29, 1929, soon turned into a global economic cataclysm. This ignominious day went down in history as the Black Tuesday. The Great Depression (1929-39) hugely exacerbated the trend towards disintegration of the global economy. Multilateral trade contracted by more than a half, almost by two-thirds. There were widespread and massive increases in tariffs and other protectionist barriers during this period. Governments erroneously believed that by raising tariff barriers was an effective defense against global economic slump and that limiting trade, they could protect their domestic economies and citizens from an economic downturn. Instead, increasing protectionism resulted in declining domestic output, increasing unemployment and worsening of the downturn. The retreat into protectionism included, and was inspired by, two large increases in tariff barriers by the US. Of these two, the Smoot-Hawley Act of 1930 is regarded as particularly infamous. Economies of cities around the world were adversely affected, particularly of those that had large manufacturing industries. In many countries construction activity came to a standstill. As the crop prices declined by nearly 60 percent, rural areas also plunged into sharp economic depression. The devastating effect of Great Depression was felt in virtually every country, rich or poor. Household incomes, government revenues, profits of firms and prices of goods and services, all declined precipitously.

[18] See Mundell (1960) also.

The causes of the Great Depression were “catastrophic errors in American monetary policy, which provoked a huge aggregate demand shock that reduced both output and prices. They declined first domestically and then, through secondary effects, in the rest of the world” (Crafts, 2000; p. 31). The other causal factors were stickiness of wages, fragility of the banking system and malfunctioning of modified gold standard, which was reconstituted in 1925.The floating exchange rate system of the 1930s also did not serve the global economy well. This period is known for significant bank failures in the industrial economies of the erstwhile period, drying up of bank loans and firms switching to use of liquid cash instead of bank credits. The most striking and widespread bank failures took place in the US. They were caused by excessive risk taking by a poorly regulated banking system preceding the Great Depression—which is jarringly comparable to the financial crisis of 2008 in the US. The credit supply to the real economy was critically interrupted in the early 1930s, which created and soon aggravated the deflationary pressure. This was the period of negative money supply shock. Drying up of bank credit at this time was the worst development that could take place.During the troubled inter-War period, investment and production by TNCs was severely constrained. Portfolio investment also became an issue of total disinterest.

2.7 The Bretton Woods System and the Eurodollar Market

Two World Wars and the Great Depression proved to be destructive to the global economy as well as global economic and financial integration. This period is known for non only its non-cooperation among the large economies but also for unreserved adoption of nationalistic policies by policy makers. At the end of the World War II, attempts were made to rejuvenate economic and financial cooperation among the large systemic economies. Resolute attempts were resumed to put the global economic system on an even keel. The objective was to pick up integrating where it was left off in 1914. The largest erstwhile economies launched a concerted and collaborative endeavor to formulate a new global monetary regime.

The regime that was invented after the World War II became known as the Bretton Woods system, named after the spa in New Hampshire, where its negotiations were finalized in July 1944. Twin institutions, namely the International Monetary Fund (IMF) and the World Bank, were conceived. In all forty four allied nations and Argentina, a neutral country, participated in this conference. Essential conference negotiations took place around two rival plans developed and supported by Harry Dexter White of the US and John Maynard Keynes of Britain. The final compromise that emerged was closer to the US plan than to that put forth by Keynes.

It was history’s first fully negotiated global monetary order; its objective was to govern financial relations, in particular currency relations, among sovereign states. The novelty of this regime was the legal obligation of the member countries that were determined by multilateral negotiations conducted in a supranational institution, the IMF. An amber signal is essential here, that is, the IMF had only a limited supranational authority. In this monetary regime, the US was the most powerful member country playing a pivotal role. Its preferences and policies significantly influenced the development and operation of the Bretton Woods regime. This new regime replaced a gold standard with a dollar standard; the dollar was theoretically linked to bullion. The flexible exchange rate regime of the Bretton Woods period depended more on the dollar policies of the Federal Reserve System than on the

discipline of the gold standard. The US had a large role in its ultimate demise of this system.

One of the imperative lessons of the disorder of the inter-War period was that unrestrained flexibility of exchange rates suffers from fundamental disadvantages and leads to instability in the world monetary regime. Excessive volatility of exchange rates had encouraged destabilizing speculation. The floating exchange rate regime had also effectively discouraged trade and investment. It was also given to encouraging destabilizing bouts of currency speculation and competitive depreciations, which frequently had a debilitating effect over the global monetary regime. However, this was a period of activist economic policy and most governments were disinterested in returning to a fixed exchange rate regime, modeled on the classical gold standard.

Therefore, as an intelligent compromise, the Bretton Woods system (1946-73) adopted a peggedexchange rate regime. The peg was movable or adjustable, that is, there was a provision for the devaluation of a currency. The IMF members were required to establish a parity of their national currencies in terms of gold and maintain exchange rates within plus or minus 1 percent of parity by intervening in their foreign exchange markets, that is, by buying or selling of foreign exchange. Capital was not allowed to flow feely because of the challenging experiences during the inter-War period. The pre-World War II controls on its movements were continued. This was a legacy of the chaotic inter-War period. Capital controls werealso used as an instrument of controlling demand in the domestic economies. Capital markets remained caged during the 1950s and a good part of the 1960s. This was an inward-looking era and capital markets were controlled both domestically and for foreign transactions purposes. Also, both capital and current account transactions were stringently controlled in most of the economies. Capital controls were so rigorous that even in industrial countries like Britain people were allowed to carry meager sums when they traveled abroad. Notwithstanding these restrictions, sporadic cases of financial crisis did take place during the Bretton Woods period but their effect tended to be entirely localized.

The IMF accepted the concept of capital controls as a means to prevent currency crises and runs. This thoughtful justification for capital controls and control-ridden capital markets was a practical measure adopted to cope with the economic reality. It helped in the organization and institutionalization of the global monetary regime of the post-War periodand its survival. Capital controls allowed a degree of autonomy to the member governments by providing them the power to follow activist monetary policies.

Major European economies achieved current account convertibility in 1959, albeit the obligations of IMF's Article III were not formally accepted until 1961. Capital controls applied under the Bretton Woods regime were not impermeable (Rajan and Zingales, 2003)[19]. Breaches occurred commonly. There were cracks for capital to move in and out. There was pressure on the Bretton Woods regime to yield to international capital mobility. The naissance of the Eurodollar market was one outcome of this pressure. These were dollar deposits in banks outside the US,

[19]For a detailed account, see chapter 11 in Rajan and Zingales, 2003.

mostly in London and other European capitals, and therefore not under the jurisdiction of the Federal Reserve Board (FED). This market was free of government controls and regulations. The Eurodollar market was created in 1957, when the British government restricted capital mobility to avert a currency crisis. It was an attempt to protect the value of the pound sterling.

Several geopolitical events—one of them was the Cuban crisis—provided impetus to the growth of the Eurodollar market. The Eurodollar market grew at a rapid clip and large sums in Eurodollars began moving globally. It contributed ominously to the wearing away of the capital controls and deterioration of the Bretton Woods regime. In the mid-1960s currencies of the countries following policies inconsistent with the maintenance of their parities were subject to frequent speculative attacks. In these countries traders and financial operators had devised ways to routinely circumvent capital controls. With the passage of time the Bretton Woods regime became increasingly fragile and the US gold reserves were threatened because of growing balance-of-payments deficits. In 1965, the US imposed restrictions on capital outflows. This proved to be the largest growth impetus to the Eurodollar markets. Like the British banks before, the US banks became increasingly interested in the Eurodollar market to circumvent the controls of their own government.

The Bretton Woods system served the global economy well for over two decades. The post-World War-II economic boom sustained and supported it. In particular, post-War recovery in Germany and Japan, which began their recovery with undervalued currencies, provided helpful support. The Bretton Woods system withered away between 1971 and 1973. The US, still the leading member of the system, was instrumental in its collapse. It refused to pay the domestic price for bearing the system's weight. During this period, balance-of-payments situation in the US had deteriorated, causing emergence of strong protectionist sentiment in the US Congress.

In August 1971, Richard Nixon suspended the convertibility of the dollar into gold. It freed the dollar to find its market value in the currency markets. Destabilizing currency speculation took an epidemic proportion. Waves of currency speculation against the realigned structure of par values negotiated in 1971 continued. Finally, in February 1973, the major currencies had to be set free to float independently. At the time of the failure of the Bretton Woods, it was not obvious what would replace it. Many European economies strongly favored return to a fixed exchange rate regime. However, floating exchange rates eventually prevailed largely because the three major currencies, the dollar, deutsche mark and yen, favored it.

2.8 The Great Moderation: The Post-Bretton Woods Era

The floating exchange rate system of the post-1973 era, after some experimenting,was adopted by all the industrial economies. It had two variations, namely, free and managed floats. During this period independence of monetary policy was regarded as an important policy instrument (Eichengreen, 1999). Thus, in the post-Bretton Woods period, for all appearances the market forces set exchange rates. Capital controls were not needed. Once the capital flows were freed, it was assumed that ill-disciplined governments could be punished by higher bond yields. With the abandoning of capital controls in the post-Bretton Woods era, it was set free

to flow from where it was to where it was needed and yielded the highest marginal returns.

In this period, central banks were given greater powers. Many of them set explicit inflation targets. Until the early 2000s, the post-Bretton Woods system served the global economy well by engendering a fairly long period of low macroeconomic volatility. Reduction in macroeconomic variability improved functioning of markets as well as rendered economic and financial planning easier. Blanchard and Simon (2001) documented that the variability of quarterly growth in real output, as measured by standard deviation, declines by half since 1983, at the same time variability of quarterly inflation declined by about two-thirds. Summers (2005) corroborated these results. He found that for a group of industrial economies standard deviation of the quarterly growth rate of real GDP during 1985-2004 was half the standard deviation during 1960-1984.

Most of the advanced industrial world enjoyed an era of unprecedented economic stability between 1983 and 2004. This trend has been well documented. This phenomenon gave rise to a new approach to modeling business cycles. At its core is the belief that the structure of industrial economies has changed significantly (Spehar, 2009). Although the business cycle has not been abolished, it has certainly been stretched. This trend was stronger in the Anglo-Saxon countries than in the other industrial economies. Large fluctuations in employment, output, and interest rates were considerably dampened. Output volatility declined in the EMEs and the developing economies also. During this period, the peaks of inflation were lower and the troughs of outputs shallower. This period of remarkable decline in the variability of output and inflation as well as the other principal macroeconomic variables was christened the era of Great Moderation. Monetary policy helps in stabilizing inflation.

The fact that output volatility declined in tandem with inflation volatility suggests that monetary policy may have had an impact on moderating variability of output as well (Bernanke, 2004). Although there is a good-luck theory propounded by Ahmad, Levin and Wilson (2002), improvements in monetary policy has probably been one of the important sources of the Great Moderation. The era of Grate Moderation in macroeconomic volatility provided a favorable and nurturing ambiance for financial globalization. Great Moderation contributed to improvement in market sentiment. Investors' risk tolerance grew and alternative asset classes began getting larger liquidity. High risk credit products saw their prices rise considerably. Capital flows to and from the EMEs also began to surge (Wellink, 2008).

3. Engendering Partial Convergence

The theory of convergence deals with long term economic growth. The term convergence implies diminishing differences in per capita income, economic development levels, productivity levels and manufacturing performance and eventually in living standards. In his seminal paper Williamson (1996; p.277) concluded that "globalization played *the* critical role in contributing to convergence". Theoretically, financial globalization and free flows of global capital should result in substantial macroeconomic benefits for both the country groups, namely, capital exporting and the recipients. It is logical to expect it to positively influence the global trend productivity and employment. It did result in doing so in countries that

integrated swiftly with the global economy, including with the private global financial markets.

Globalization failed to produce global convergence. While it did provide a stimulus to convergence process,convergence in the global economy occurred in a partial, patchy and irregular manner. It took place in only certain periods of history and its application was geographically limited. Two of the most remarkable instances of convergence are: First, after the World War II convergence occurred in Western European economies along with Australia, Canada and the US, the economies of European settlement. Together they are counted in as the OECD economies. Second, the locus of the convergence club shifted to East Asia. Following the much vaunted Asian miracle, the dynamic East Asian economies began to convergeafter 1960. This group established itself as the fastest growing economies ever. In a short time span of two generations, it achieved what the North Atlantic industrial economies took much longer to achieve. In his seminal paper Williamson (1996; p.277) concluded that "globalization played *the* critical role in contributing to convergence".

These two groups of economies demonstrated rapid growth in real income and productivity, rapid adoption and adaptation of core industrial technologies and corresponding transformation in economic structure. A recent comparable case of similar characteristic changes in an economy and resulting rapid growth is that of Chinaand India. They are two populous(2.4 billion) economies accounting for more than a third (37.49 percent) of the global population. They are increasingly being perceived as two up-and-coming economic powers that could one day become consequential players on the global economic stage (Das, 2006a). Nonetheless, it is *au point* to conclude that instances of successful convergence led by global integration have been more of the exceptions than the rule (Dowrick and DeLong, 2005).

Convergence is regarded as a club or group phenomenon. That is, from time to time a limited number of countries in groups succeeded in generating and honing economic forces that led to convergence. These economic forces became strong enough to counter the adverse pressures in the groups of economiesthat succeeded in converging. Apparently, economic and financial globalization did not succeed in spreading these forces universally.

4. Latter Half of the Twentieth Century

One view regarding the onset of the current phase of globalization puts it at the early 1950s. Neoclassical economists deem the initial period of the latter half of the 20th century as beginning of a new economic era that focused on supporting and encouraging interdependence, collaboration and mutual support among the important world economies. This concerted increase in economic interdependence is regarded by them as the resumption of economic and financial globalization.

When the World War II ended, major European countries and Japan were war ravaged. Economies in Britain, France, Germany and Italy were in shambles and if anything Japan was worse. Industrial infrastructures in several large industrial economies were destroyed. Significant financial and economic plans were drawn by world leaders for the reparation and recovery of war-torn economies. Neoclassical

economists regard these economic collaborative endeavors, together with the Bretton Woods conference, as the commencement of the post-World War II phase of globalization. Supranational institutions, namely the IMF (charged with overseeing the global financial system) and World Bank (with a mandate for reconstruction and development) were established in 1944. These supranational institutions evolved into two principal instruments of global economic governance. Recovery from the ravages of War steadily progressed. In 1947, the General Agreement on Tariffs and Trade (GATT) was created with a mandate to eliminate trade barriers and promote multilateral trade. It provided a forum and developed procedures for the formulation of multilateral trade law out of agreements between states. It played an effective role in the massive expansion of world trade in the latter half of the 20th century.

At this point in time, the US economy, with its holding of 70 percent of world's gold and foreign exchange reserves, held a high perch in the global economy. It was by far the largest global economy, accounting for 40 percent of total world industrial output (Peters, 2004). Through the Marshall Plan the US provided $12 billion to the war-torn economies in grants and low-interest loans. The 1950s and 1960s turned out to be a halcyon period of economic growth for Japan and Western Europe. Led by the supranational institutions, focus of the new global leadership next turned to the impoverished developing economies. During these decades, a large proportion of them were colonies that were getting their formal independence and becoming sovereign states. However, an overwhelming majority of them were low-income, resource-poor economies. They were yet to achieve economic independence.

By the 1960s, global commitment to growth and development in these impoverished and underdeveloped economies increased. The Bretton Woods twins and national economic aid organizations set up by large and small industrial economies turned their attention to supporting growth and development in these countries. The aid organizations created by the Nordic countries made a name for themselves by making soft loans and grants to a large number of developing countries. Measured as percentage of GDP this country group became the largest donor of developmental assistance (Das, 2009). In terms of sheer volume, Japan and the US were also large supporters of growth and development. Development economics as a subject matter developed at a rapid rate. Innovative approaches to growth and development were developed by some of the best intellects in the profession. Respected economists like Hollis B. Chenery were cherry picked from the academe to head research in development economics by the World Bank.

FDI flows have been a major instrument of global economic and financial integration. Other than globally integrating, FDI benefits the recipient country as a stable source of finance for expanding investment. It is regarded as more stable than other kinds of global capital flows. FDI usually moves in package deals. It is packaged with technology, managerial know how and marketing linkages. After initial slow growth, the global stock FDI expanded discernible during the latter half of the 20th century. In current dollars it was $14 million in 1914. It soared to $60 million in 1960 to $2.46 billion in 1995. In constant (1990) dollars the value of FDI stock soared from $153 million in 1914, to $362 million in 1960 and further to $2.05 billion in 1995. As a proportion of the world GDP, the FDI level had plummeted to 4.9 percent in 1945. However, FDI by TNCs began gradually rising again in the 1950s and reached 6.4 percent of world GDP in 1960. The decades of 1970s and 1980s turned out to be

good for the global FDI expansion from TNCs and it reached 17.7 percent of the world GDP in 1980 and 56.8 percent in 1995. During these decades TNCs' role in transferring technology had increased significantly and the new trends of vertically integrated production and networked production had proliferated in the global economy (Obstfeld and Taylor, 2004). FDI flows, unlike bank liabilities, are not crisis-prone (Joyce, 2009).

The other channels of capital flows were bank and portfolio finance. During the early post-War period, the volume of this kind of financial flows was slow. In many countries, capital account restrictions not only persisted but were stringent. Subsequently, these restrictions began to be phased out. With that capital flows from banks and portfolio finance markedly increased. As a generalization it can be stated that countries with more open capital account tended to grow faster.

4.1 Asymmetric Initiation

As stated in the preceding section, the trend towards global economic integration gradually developed from the global economic collaboration and interdependence. During the latter half of the 20th century, world economy enjoyed a remarkable era of prosperity. There was a striking general improvement in health and education indicators. Although spread of prosperity and social services was fairly broad, it was far from uniform. Not everybody benefited from the spread of global prosperity. It was utterly uneven in terms of spread among economies as well as individual population groups within the globalizing economies. This asymmetry was an idiosyncratic feature of the post-World War II period of globalization.

Some country groups did exceedingly well and prospered, while others continued to stagnate. The better-performing economies that benefited from global integration have been named in the preceding section. The dynamic country groups that were the first, and most, to benefit from global integration of this period were the industrial economies of Western Europe and Japan followed by those that adopted outer-oriented or export-led growth policies. Adoption of macroeconomic and structural reforms was a necessary condition so that institutions of good governance could be developed. These important policy measures were indispensable to have the required economic resilience and flexibility. Conversely, the country groups that followed inward-oriented or import-substituting and *dirigist* growth policies remained cloistered and excluded themselves from the benefits of globalization. With strong GDP growth performance, the former country groups recorded the largest increases in per capita incomes during the post-War phase of globalization. Strong growth provided them with resources to improve living standards and alleviate poverty. The latter country groups putatively failed to achieve either of these two goals.

4.2 Proliferation of Prosperity

Notwithstanding the unevenness of its distribution, the latter half of the 20th century is fairly well acclaimed for its spread of prosperity. It burgeoned in several parts of the global economy. Global economic growth in the latter half of the 20th century was so much better and qualitatively different from any earlier periods in history that a "new perspective of the world economy was needed to comprehend it" (Lucas, 2000, p. 159). Over this period world GDP growth, both in the developing and industrial countries averaged more than 4 percent in real terms. A noteworthy point is that both

developing and industrial economies[20] grew by and large at the same pace. A direct consequence of this was improvement in the living standards, as measured by improvement in real per capita income. In a brief time span of half a century living standards improved discernibly. This rapid global growth led to average global per capita income to nearly triple in the second half of the last century (Kohler, 2002)[21].Maddison (2003) firmly corroborated this fact.[22]

According to one calculation, real per capita GDP between 1950 and 2000 increased from $5,236 to $20, 213 in Western Europe, from $6,847 to $19,704 in Australia and Canada, from $9,573 to $27,272 in the US, from $765 to $4,359 in Asia, from $2,487 to $5,495 in Latin America and from $830 to $1,311 in Africa. Real per capita GDP for the world rose from $2,138 to $5,998 over this period.[23]Two outstanding cases in this regard were China and Japan. In case of China this increase was from $614 to $6,283, while in case of Japan it was from $1,873 to $20,616.[24] Broadly speaking, country groups that benefited more from economic and financial globalization included the industrial economies and the East Asian economies, while those that were slow gainers included Africa, South Asia and Latin America. Gains recorded by China and Japan were the highest.

The rate of growth of multilateral trade in goods and services was double the rate of global GDP growth over this period, implying integration of the global economy through trade. Multilateral trade (exports plus imports) volume expanded sizably during this period. It was a puny one-tenth of the world GDP in 1950. This proportion soared to one-third in 2000. As noted above, the two principal contributing factors to rapid multilateral trade expansion were: first, institutional improvements reflected in the rolling back of the tariffs and other trade barriers and, secondly, dramatic decline in transport and communication costs.

The global integration that began with increasing economic interdependence in the early 1950s, learned from the mistakes of the inter-War period. Under the auspices of the GATT, tariffs and trade barriers were progressively reduced and multilateral trade was brought under the rules of law laid down by the trading countries. Trade barriers created by governments were dramatically negotiated down during eight rounds of multilateral trade negotiations (MTNs) conducted under the aegis of the GATT. In addition, barriers to trans-border capital flows were also lowered. Like in the first era of globalization, decline in transport cost continued during this era as

[20]The term industrial economy or country has become a misnomer, because some of the emerging-market economies, like China, have become extensively industrialized. Contribution of industrial sector to their GDP is larger than that in the high-income countries of the developed world, whose economies are overwhelmingly dominated by the services sector. These countries have increasingly become large exporters of manufactured products as well.

[21] Horst Kohler, Managing Director, International Monetary Fund, "Strengthening the Framework for the Global Economy", a speech given on the occasion of the Award Ceremony of the Konrad Adenauer Foundation, Berlin, November 15, 2002. Available on the Internet at http://www.imf.org/external/np/speeches/2002/111502.htm.

[22]See Table 8-B, Maddison (2003).
[23] See Mussa (2000), Table 1.
[24] Ibid.

well. Container shipping that was invented in 1956 made the world smaller and changed the shipping industry for ever. In 1950, an average commercial vessel carried 10,000 tons at a speed of 16 knots. In 2000, an average vessel could carry 6,600 20-foot containers, having 77,000 tons of cargo at a speed of 24.8 knots. Containerization sharply reduced freight costs and totally transformed global trade, particularly that in manufactures.

Speedy advances in information and communication technology (ITC) took place towards the end of this period. Telecommunications, computer and the Internet became crucial change agents and promoters of economic and financial globalization. They were responsible for precipitous decline in communications costs of voice, text and data. Although falling communications costs were ignored by international trade theory and contribution of modern information and communication technology (ICT) totrade is often disregarded, they have had enormous implications for the modern trade expansion. Vertically integrated production and global production networks of this era could not function without ICT advances. Also, trading procedures and practices call for a great deal of communication between potential buyers and sellers, an array of middlemen and facilitations like the transporting and insuring firms. Together these developments became the key globalization-enablers of the last quarter of the 20th century. They coalesced to promote and support spread of economic and financial globalization during this era.

4.3. Global Economic Integration through Upgradation of Policies and Institutions

The above-mentioned group of dynamic economies (Section 4.1) benefited from globalization by successful exploitation of market-led outer-oriented development strategy and climbing the ladder of development by first producing and exporting labor-intensive manufactures and then by capital- and technology-intensive manufactures. Assisted by their adherence to the outer-oriented economic strategy, they integrated first regionally and then globally, particularly with the mature industrial economies. After a time lag, India also joined this country group. It climbed the same ladder by exploiting the information and technology-enabled services (ITeS) sector. Freeing the market forces and enhancing their legitimacy in the economic system rendered these economies more efficient, which in turn led to rapid GDP growth and material advancement of these societies.

In the process of espousing globalization, several economies improved their domestic macroeconomic policy structures and institutions. Other than the industrial economies, this observation applies to both some middle- and low-income developing economies as well as the EMEs. Many of these developing economies were essentially exporters of commodities, while the EMEs largely export manufactured goods and services. They pursued external liberalization by dismantling trade barriers, both tariffs and non-tariffs. They also took policy measures to avoid having overvalued currencies and to liberalize current account transactions and preliminary measures to liberalize capital account. That is not to say that all trade restrictions and those on FDI and other financial flows were dismantled, albeit they were significantly brought down. These economies also put in place economic reform programs and markedly improved their macroeconomic policies. Instances of large fiscal deficits and current account deficits have dropped to a small number. A discernible improvement in the general quality of economic institutions was noticed as well as the depth in their financial markets increased. As

globalization has proved to be an important driver of growth in these developing economies and EMEs, some spillover effect in adopting internal and external policy liberalization among economies cannot be denied.

Developing economies and EMEs that open to the presence of foreign financial institutions and to trade in financial services are known to benefit from it. Cross-country evidence indicates that economic liberalization on these lines ushers in significant increases in both economic stability and efficiency in the domestic financial markets. In particular entry of foreign banks tends to increase diversification of domestic risks, enhance competition and efficiency, at the same time lowers moral hazard (Litan, *et al*, 2001; Mishkin, 2001). A large econometric exercise undertaken by the IMF analyzed data for a broad sample of 80 countries over a long period (1970-2005) to examine several aspects of global economic integration (IMF, 2008b). The econometric framework essentially consisted of cross-sectional and panel regressions. It came up with several valuable inferences. In brief, export volumes as a proportion of GDP grew for the sample countries by an average of 30 percent between 1980 and 2005. Improvement in institutional and financial frameworks accounted for as much as 25 percent of this increase. Another 25 percent of this increase was accounted for by reduced macroeconomic policy distortions. They included relaxing of exchange restrictions, dismantling of tariff barriers and reduction in currency overvaluation. Thus, with progress in globalization, policy and institutional environment and economic performance has been undergoing marked up-gradation in a large number of economies.

The BRIC concept has proved to be an enduring one. Recent rise of these economies is credited to launching of macroeconomic reforms and adoption of restructuring policies in these economies. At different points in time, they adopted market-oriented liberal policy framework, which in turn was instrumental in relative closer integration of this sub-set of economies with the global economy.[25] Their significance in the world of finance went on increasing. In 2008, their combined GDP was $8.6 trillion and they accounted for 14 percent of global output. Together they held 42 percent of world's currency reserves and 33 percent of US Treasury debtin 2009. The BRIC economies met in Yekaterinburg, Russia, in June 2009, for an inaugural group summit. The objective of the summit was to deepen strategic relations and explore a range of issues including the continuing global economic recession (EIU, 2009).

The same policy framework is considered responsible for the growing salience of around 30 EMEs on the global economic stage. Sub-groups of developing economies and EMEs that benefited during the contemporary phase of globalization are customarily divided into several overlapping country groups. For instance, other than the four BRIC economies, the seven largest EMEs (China, India, Brazil, the Russian Federation, Indonesia, Mexico and Turkey) is one such group, while the EMEs that are the non-Group-of-Seven (G-7)[26] members of the Group-of-Twenty (G-

[25] See Goldman Sachs 2005 and Goldman Sachs 2003.

[26] The Group-of-Seven (G-7) comprises the seven largest mature industrial economies, namely, United States (US), Japan, Germany, France, United Kingdom (UK), Italy and Canada. In 1976, Canada was the last to join the G-7.

20)[27], is another such group. In a globalizing world economy, the last named sub-group of economies is regarded as systemically significant countries that account for close to 85 percent of the global economic production. These countries have a significant control over global resources and account for two-thirds of the world population. The non-G-7 members of G-20 have lately begun to play a meaningful role in the global economic policy making and governance.

Disintegration of Soviet Union in 15 independent countries and the abandoning of the non-market economic dogma contributed to global integration. Some of these economies along with the East European ones, which were satellite of the Soviet economy, transformed into market economies and democracies. Many of them also made valiant attempts to turn into EMEs and integrate with the global economy.

These developments of the latter half of the 20th century, particularly of the last three decades (analyzed in section 5 below), not only bolstered globalization but also markedly changed the economic geography of the world economy. The economies that emerged as winners of globalization signify that it is a benign and productive force. How does globalization work as a welfare-enhancing, munificent mechanism? Economists' response is uncomplicated and direct: globalization enhances the economic opportunities of a country by allowing it to sell its goods and services in a much larger market, have access to a great deal bigger capital market to finance its growth and development process and also have a larger opportunity to import technology and knowledge, which eventually enhances TFP. Thus viewed, the direct consequence of increased economic opportunities is tangible economic benefits and enhanced well-beingfor the globalizing economy.

According to the classical economists like David Recardo, the basis of these welfare gains is the theory of comparative advantage based on differences on factors of production and technology. Exploitation of comparative advantage allows production of more goods and services with the same resources because firms are able to produce at lower opportunity costs. While the modern theory of international trade attributes the welfare gains to economies of scale, they also occur due to mobility of factors of production, which makes them far more efficient and productive than when they are static.

5. Shifting Gears of Globalization: The Second Era of Globalization

[27] The inaugural meeting of the Group of Twenty (G-20) took place in Berlin on 15-16 December 1999. It was jointly hosted by the German finance minister Hans Eichel and chaired by the Canadian finance minister Paul Martin. The G-20 had been set up on the recommendation of the G-7 finance ministers (in their report to the economic summit in Cologne on strengthening the international financial architecture) and was confirmed by them and the central bank governors in their joint communiqué in September 1999.The members of the G-20 are the finance ministries and central banks of 19 countries: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, Russia, Saudi-Arabia, South Africa, Turkey, the United Kingdom and the United States. The 20th member is the European Union, represented by the Council presidency and the European Central Bank. To ensure that the G-20's activities are closely aligned with those of the Bretton-Woods institutions, the managing director of the IMF and the president of the World Bank, plus the chairpersons of the International Monetary and Financial Committee and Development Committee of the IMF and World Bank, also participate in the talks as ex-officio members.

Mundell (2000) posited that the genesis of the contemporary era of globalization was the oil shock of 1973 and collapse of the Bretton Woods system. Both of these global economic developments were momentous and were responsible for getting the global economy ready for financial globalization that followed. The large current account surpluses of the Organization of Petroleum Exporting Countries (OPEC) were recycled to the developing economies through the so-called money-center banks. These banks had suddenly came upon massive liquid resources to invest. The recycled petro-dollars went to those developing countries that were regarded as creditworthy and had access to capital markets. A large majority of petro-dollar loans were either sovereign loans or were guaranteed by the governments. For the most part sovereign loans were made as syndicated loans by the large money center banks. The Bretton Woods system of adjustable-peg exchange rate regime had disintegrated. Therefore, the borrowing economies could open to greater capital mobility while preserving the autonomy of their monetary policies (Das, 2003b).

There is another established view regarding the initiation of the present phase of globalization. Some economic historians concur that 1980 was the real beginning of what they call the "second era of globalization" (Aizenman, *et al,* 2007; p. 657). Supported by technological advancements, economic and financial globalization developed a compelling economic momentum of its own. This period distinguished itself from the first era of globalization by involving not only traded goods, services and capital but also a long inventory of services that were regarded non-tradable, before the Internet revolution. In addition, during this period global integration was far more multidimensional than that in the first period. It took place through multiple channels, namely, trade, finance, communications, intellectual property, knowledge and technology transfer and trans-border entrepreneurial activity of the TNCs. This multidimensionality made it far more comprehensive, vigorous and far-reaching than ever before. In addition, scale, pace and intensity of global economic and financial integration in the contemporary era was unarguably without equal. Consequently, economic and financial globalization surpassed all the previous eras by a large margin.

The volume of merchandise trade, which was 20 percent of global GDP in 2006, is one of the proofs of this fact. The corresponding proportion was barely 8 percent in 1913. Although by 1990 it had soared to 15 percent. Global financial flows expanded more rapidly than multilateral trade during the contemporary phase of globalization. Financial markets are far more mature at present than those during the earlier era of global integration and investors use a much larger array of instruments, equities and derivatives. Financial integration of the earlier era, albeit significantly expanded in volume terms, was relatively limited in comparison to pervasive integration of the current period (Bernanke, 2006). It benefited from the institutional innovations of the current period. However, in one dimension, namely mass migration, the pre-World War I period outperformed the current period of globalization. Dowrick and DeLong (2005; p. 191) concluded that except "in mass migration in which we today are less "globalized" than our predecessors at the end of World War I".

5.1 Neo-Liberal Policy Environment

The reasons why the contemporary phase of globalization is believed to have commenced around 1980 include the fact that the global political and policy climate changed in favor of neo-liberal economic strategies around this time period. I use the

term neo-liberal to convey that globalization necessitates adoption of free-market policies and eradicating barriers to the operation of market forces. A series of neo-liberal policy measures that advanced global integration were taken in systemically important countries around this period. To name some of the most important ones, many medium- and large-sized developing economies made a big push towards trade and financial integration and a sub-group of them, called the EMEs, energetically came into being. This development is exemplified by China, that launched its much vaunted *gaigekai fang*[28], or reform and opening up, program in late 1978. In the early 1980s, it was busy converting its non-market, or command economy, system into a market-oriented economic system.[29] Its objective was to turn away from Maoism and towards exploitation of market forces.

A large array of neo-liberal policy measures of global significance took place. For instance, in 1979 Margaret Thatcher came to power in Britain and Ronald Regan in 1980 in the US. Neo-liberal economic policies were implemented and deregulation and tax cuts were promoted in both the economies, giving a substantial boost to pro-market ideology. For all appearances, this was the launch of a new era of liberal macroeconomic and financial policy. The deregulation unleashed during this period brought about a far-reaching transformation of financial systems in the advanced industrial economies.[30] In addition, in the mid-1980s, the European Union (EU) made a well-publicized commitment to create a single market. With the collapse of the Berlin wall in 1989 and subsequent disintegration of the Soviet Union, a large number of East European economies and the newly created countries after the break up of the Soviet Union launched into the onerous task of turning their centrally-planned economies into market economies, so that they could eventually integrate into the global economy and financial system (section 4.3). Furthermore, the Uruguay Round of MTNs, launched in 1986, promoted global thinking in the area of multilateral trade. After eight marathon years of negotiations between 117 contracting parties (CPs) of the GATT, and after numerous challenging roadblocks it eventually culminated in 1994. It mandated creation of a broader international trade organization on the foundation of the GATT (Das, 2001). The World Trade Organization was founded in 1995. Each one of these developments was a consequential and influential global economic event and their cumulative effect was nothing short of seismic.

In addition to the developments enumerated in the preceding paragraph, protectionist strategies in the Latin American economies fell out of favor during the early 1980s. Also, under pressure from a major macroeconomic crisis India decided to give up its socialist-statist economic structure and launched a major macroeconomic restructuring in 1991. Brisk take-off of China and India began to change the global economic contours in a overwhelming manner.[31] Inspired by the striking success of the East Asian economies with outer-oriented development strategy during the 1970s and 1980s, a good number of developing economies began their economic turn around during the 1980s by adopting economic

[28] Literally translated it means “change the system, open the door”.
[29] Several detailed and well-researched accounts of this process are available. For instance, see Lardy (2002), Lardy (2006) and Das (2008d).
[30] See Brender and Pisani (2009), Chapter 1, for the relationship between deregulation and financial globalization.
[31] This issue has been intensively studied in Winters and Yusuf (2007) and Das(2006).

liberalization and outer-oriented growth strategy. In the process, many developing economies incessantly improved various aspects of their external sector policies. Most-favored-nation (MFN) tariff rates in the developing economies on an average declined from 14.1 percent during1995-99 to 11.7 percent during 2000-04 and further to 9.4 percent in 2007. This is a total decline of 33 percent, a sizeable fall in the barriers to trade (WTI, 2008). In addition, a significant proportion of world trade began to be conducted at zero MFN tariffs, or under various preferential tariff arrangements (PTAs) and free trade agreements (FTAs). Consequently, several industrial, developing and especially EMEs, began a steady process of integration into the global economy. This mindset among policy makers favorably influenced the different channels of global economic integration. Policy mandarins began taking utilizing them in a creative manner.

5.2 Principal Drivers of Financial Globalization

An inventory of factors promoting and powering international financial integration during the contemporary period includes enhanced activities of the following three entities governments and policy mandarins, market players (borrowers and lenders) and financial institutions. It was powered particularly by an increasing number of countries adopting financial and trade liberalization measures, domestic financial reforms, macroeconomic restructuring and relaxation of capital account restrictions as well as integration of the European Union and creation of the Euro and the stepped up activities of the offshore financial centers (Lane and Milesi-Ferretti, 2008; Schmukler, 2008). To be sure, the advanced industrial economies are the most financially integrated, the EMEs played a prominent supportive role in advancing global financial integration.

The three entities named above, individually and in collaboration played an imperative role in helping countries, and country groups, become financially more integrated than in the past. Early during the post-World War II period extensive controls on domestic financial markets were endemic. Credit allocation in the economy was controlled and channeled according the priorities determined by the governments. Market forces had nothing to do with the credit allocation and financial markets were frequently repressed. Restrictions were far more stringent and extensive on foreign exchange transactions. Again it was the government fiat that determined which foreign exchange transactions could take place and which could not. The same applied to derivative transactions, lending and borrowing activities by banks and business corporations and the participation of foreign investors in the domestic financial markets and that of domestic investors in the global financial markets.

An economy cannot possibly financially globalize without the initiatives taken by the government in dismantling these restrictions and controls. Liberalizing restrictions on the domestic financial markets and the capital account of balance-of-payments are two indispensable conditions, without the realization of which financial globalization cannot start. Thus, liberalization and deregulation and opening up of the capital account are the two imperative drivers of financial globalization. The developments of the preceding three decades demonstrate that some governments took these two necessary measures at an early stage, and financially integrated with the global economy swiftly, while the other did not. As a generalization it is correct to state that there was a gradual lifting of restrictions in many countries, in some it was swift and

rapid while in others it was slow. However, periods of reversals are not unknown, when the restrictions were re-imposed. Maximum reversals took place following the debt crisis in the post-1982 period. Many occurred in the mid-1990s and after the Argentine crisis in Latin America.

The development of domestic financial system in the developing economies, particularly the EMEs, was another consequential promoter of financial integration. In many cases, it was spurred by gradual increase in investment from the international capital markets. It helped in creation of domestic financial products, which in turn facilitated foreign demand and domestic liabilities. Thus, systemic development in the domestic financial sector smoothes the progress of financial globalization. A positive correlation between domestic financial sector development and financial globalization was established by Martin and Rey (2004).[32]

Market players, which include households and business firms, are also among the principal drivers of financial globalization. By borrowing or lending abroad they can make use of relaxed financial constraints to smooth out consumption and investment variations. An important objective of investing abroad is diversification of cross-country risk. When business corporations raise capital in the global capital market directly through bonds and equity issues, they expand their financing alternatives and lower the cost of capital. This allows them to augment their investment and increase liquidity in the system.

Financial institutions are a force to reckon with in the arena of financial globalization. They are justly regarded as compelling drivers of global financial integration. Internationalization of financial services directly enhanced their role in financial globalization. The ICT revolution, which shrunk the globe, is responsible for geographical distances losing their importance. Due to the modern ICT inventions and devices, the reach of large financial institutions increased enormously. They can serve markets in different parts of the globe from one, or a small number of, locations. Intensifying competition in the advanced industrial economies forced the large financial institutions to look for other markets and new lines of financial businesses. As the ICT advances reduced costs of trans-border financial transactions and an increasing number of governments adopted liberalization and deregulated their financial sector, more and more international financial institutions began participating in the local markets of other countries. This provided substantial impetus to proliferation of financial globalization.

A forceful factor promoting financial integration was the pace of financial innovation during the contemporary period. Acceleration in its pace stepped up financial globalization. Particularly important were securitization and increased activities of hedge funds and widespread use of offshore special purpose vehicles by both financial and non-financial institutions.

Turning to demand side, improved macroeconomic policy structures, stronger economic fundamentals and steady improvement in business environment in several EMEs and middle-income developing countries ensured an attractive business climate for the international financial institutions that were determined to expand their

[32] See also Mishkin (2003).

business activities globally. The EMEs *en masse* played a prominent role in the contemporary wave of financial globalization. Since the early 1990s, the external balance sheet of these countries transformed and several of them improved their net external position extraordinarily (Lane and Milesi-Ferretti.2008).

5.3 Impact onFinancial Integration

If the 1950-80 were the years of feather-weight global interdependence and integration, the three decades following 1980 were a period of relatively more intensive integration of the global economy and financial markets. Global integration shifted into higher gear and became a vigorous driver of epoch-making structural changes in the national, regional and global economies. Over these three decades, globalization also succeeded in poverty alleviation of impressive order and integrating global economy by production networks, which rendered far-reaching benefits to the global economy. One idiosyncratic tendency of global financial integration is to weaken the regulatory forces. Its progress debilitates the regulatory framework. Technological advancements in collusion with deregulation reinforced a self-reinforcing mechanism pushing strongly in the direction of global integration of financial markets. Central banking authorities assumed that this would promote self-regulating tendencies in the integrating financial markets. These expectations were subsequently belied.

The post-1980 was the halcyon period of global finance, which enabled capital to spread widely in the global economy. New instruments and markets evolved and a stupendous array of new business ventures were financed in various parts of the global economy. Access of ordinary business firms to capital improved phenomenally. Its overall impact over businesses and economies was constructive, favorable and welfare-enhancing. The interruption of this golden era of global finance was marked by the bursting of housing bubble in the US in 2007. Mortgage delinquencies soared and securities backed with sub-prime mortgage lost most of their value. This led to a large decline in the capital of many US and European banks. Massive de-leveraging in the financial markets began in September 2008, whenLehman Brothers filed for bankruptcy. Subsequently, the financial crisis became global and turned into a severe recession. Its consequence was sharp contraction of global trade and financial flows. Financial globalization had stalled.

6. Global Capital Movement and Trade in Financial Services

A rational conceptual vision of an integrated global financial market entails savings and surplus financial resources of the entire world economy coming into one financial market and competitively being priced by the forces of global demand. In this abstract visualization of a global financial market a range of financial assets would carry the same risk-adjusted expected returns and would be traded globally. During the contemporary era overtures towards this theoretical vision of an integrated global financial market were seen in the post-1973 period and 1980s. This was the beginning of a new era of financial globalization. Quadrupling of oil prices triggered capital movements of huge amounts in petrodollars through the Eurodollar market. That is, these capital movements could bypass official capital controls.

Since the early 1980s, world financial system, in particular capital markets, saw a great deal of transformation. It is clearly reflected by the following three indicators: financial depth, diversity and globalization. In particular, the present period saw

impressive advances in internationalization of financial services. This across-the-board transformation of global financial, particularly capital markets, progressed methodically, albeit not in a linear manner. It was not merely confined to advanced industrial economies and the large financial centers, undoubtedly that is where it has occurred for the most part. Wide proliferation of financial integration is established by the fact that since 1990, 70 percent of the world economies succeeded in increasing their gross external positions (IMF, 2009). That being said, a word of caution is necessary here. Notwithstanding the widespread progress in financial globalization, international financial markets are at present far from being perfectly integrated. Plentiful evidence of unrelenting segmentation of capital markets, both across and within countries, is readily available (Grinblatt and Keloharju, 2001).

A notable development in this regard is that a significant amount of transformation and globalization also took place in the developing economies. Many of them successfully deepened their securities markets by initiating major financial reforms, which continued well into the 1990s. These developing economies adopted all the appropriate policy measures, like liberalization of their financial systems, improving investment climate, developing new supervisory frameworks and institutions as well as improved basic infrastructure for capital market operations. These countries became conscious of the fact that macroeconomic stabilization measures were necessary for financial stability. Improvement in business environment was another necessary link for having a smoothly running financial system. To strengthen their capital markets, many developing countries also undertook comprehensive reforms, including pension reforms.

The reform measures undertaken by the developing economies had an uneven impact. The intensity of reforms in many countries was not matched by the final results, which was puzzling. The developing economies of Latin America espoused "financial globalization more vigorously than have Asian countries, but have lagged considerably behind Asia in terms of deepening their domestic securities markets" (de la Torre and Schmukler, 2005, p. 47). To strengthen their capital markets the developing economies also quickened the pace of privatization of their state-owned enterprises (SOEs). It made FDI and portfolio investment in the EMEs attractive for firms and households in the advanced industrial economies. Little wonder that an investment boom occurred in the EMEs during the decade of 1990s.

Empirical evidence is available to show that global financial markets made discernible progress in interacting and integrating during the 1980s. Mussa and Goldstein (1993) found linkages between national financial markets during this decade and evidence of growth in these linkages. They were particularly strong among the high-grade financial instruments, which were energetically traded between the wholesale markets of major financial centers of the world. These linkages were not limited to the major industrial economies and the financial markets with the rest of the world. Capital markets in large and middle-income developing economies also interacted and participated with the markets in the rest of the world, albeit they progressed far less in term of integrating than those in the industrial economies.

Over the decade of 1980s, concept of an integrated global financial market was still an abstraction. Possibility of this abstraction turning into a reality could only be

conceived for a future time period. The reality was that in most domestic financial markets threats of government intermediation when financial stress of any kind surfaced were omnipresent. Currency risk and simple preference for consuming domestic goods and investing in the domestic markets generally discouraged economic agents from turning global. They restricted their movement out of the domestic capital markets. However, from time to time attraction of stronger arbitrage of expected returns did overtake the mindset of financial players. When the perception of individual and institutional players, that had enormous financial prowess, changed regarding the risk-return outlook for a particular security or currency, temptation to trans-border for financial gains became strong.

6.1 Prominent Attributes of Financial Globalization

During the 1980s, international diversification of financial assets was in its early phase. Its growth was being negatively affected by the cost of gathering, processing and transmitting information. For the same reason the cost of executing financial transactions was also high. The expectation was that as advances in the ICT occur with the passage of time (Section 7.3), these costs would decline. Besides, financial liberalization, which promoted trans-border ownership of assets, was steadily growing in the advanced industrial countries.

An important contribution to financial globalization during this period was made by evolution and growth in professionally managed pool of savings. With growth in pension funds, management of savings changed structurally. Private saving schemes supplanted the public ones. Mutual funds began managing much larger volumes of savings than banks. Hedge funds that use advanced investment strategies and aggressively manage portfolio of investments also joined global financial market operations.

Financial reforms of this period that upgraded payments and settlement systems worked towards reducing systemic risk and encouraged legions of individual investors to participate in global financial markets. Financial reforms also improved private sector's capacity to change the currency of composition of its assets and liabilities at a short notice. Thus viewed, the 1980s weremarked by mounting importance and agility of the private sector market players. Their operations provided initial impetus to financial globalization.

There was little evidence of private capital markets making mistakes in the important issues like choice of securities and currencies. However, market discipline during this period had a lot to be desired. It could be improved in two ways during this period. First, there was a pressing need for streamlining and strengthening the information flow regarding the debtors' obligations and debt-servicing capability. When there are quality problems with the information, lenders will be able to separate good credit risk from bad oneonly imperfectly. Its likely effect could be a contagion effect at a future point in time. Comprehensive reporting of data and transparency in revealing the obligations of borrowers go a long way in improving market discipline. Secondly, the moment it becomes obvious that the participant will be bailed out in case of a default,market discipline is effectively blighted. This knowledge gives rise to unruly and disorderly market behavior. Decision making process goes totally haywire. Under these circumstances, the interest rate is determined on the basis of the status and stance of the guarantor, not the

creditworthiness of the borrower. Also, the errant conduct of the borrower becomes of little concern to the lenders. Properly monitoring loan becomes a redundant exercise for the lenders.

With the onset of the decade of 1990s, the general phenomenon of economic and financial globalization picked up momentum. The concept and phenomenon of globalization grew more widespread as well as emotive(Das, 2009). In accordance with this development, integration of financial transactions and markets also grew more energetic. In particular, wholesale markets of high-grade instruments witnessed closer global financial integration than they did during the 1980s. These wholesale markets of industrial economies integrated far more than those in the other economies. At this point, another group that became an active participant in financial market integration was the EMEs. Other large developing economies also attempted to consciously integrate. Their pace of integration was much less than that for the industrial economies.

In quantitative terms, global capital flows fluctuated from around 2 percent of world GDP in the 1980s to 6 percent in 1995 (IMF, 2008c). A distinguishing feature of the global capital market activity in the 1990s was remarkable growth in international bank lending to these two country groups, namely, the developing economies and the EMEs. That the latter became increasingly financially integrate with the global economy as well as into the global capital markets was somewhat dramatically demonstrated when they suffered a string of economic crises during the 1990s.

Formation of the economic and monetary union (EMU) in Europe was a supportive event. The Delors report of 1989 set out to enunciate and introduce the concept of the EMU.[33] It prepared a three-stage process of integration involving the sixteen European Union (EU) member states, culminating with the adoption of the Euro. The plan included creation of institutions like the European System of Central Banks (ESCB), which was to become responsible for formulating and implementing monetary policy. In July 1990, exchange controls were abolished, which in turn liberalized capital movements in the EU. The Treaty of Maastricht, entered into force in November 1993, further strengthened the EMU by setting a number of economic convergence criteria. The EMU helped in global financial integration by eliminating exchange rate fluctuations among the eleven EMU member countries. Although formal creation of the Euro Zone took place later, the concept and preparation were being worked on during the 1990s. The creation of a monetary union led to integration of money and credit markets across the member countries.

The euro was adopted as the currency of the eleven, out of the sixteen, European countries in January 1999.[34] This was a momentous development and eliminated currency risk among the member countries. This was responsible for a higher degree of substitutability between domestic and foreign securities, which contributed to a substantial reduction in home bias within the Euro Zone. It also stimulated trade in financial services and increased depth and liquidity of a single area-wide financial

[33]Jacque Delors was the president of the European Commission, who chaired a committee which proposed a three-stage plan to reach full economic union.

[34] At the time of the launch of the Euro, only eleven EU member-states had met the convergence criteria. Therefore the official launch of the Euro included only these members. Greece qualified in 2000 and was admitted to the Eurozone in 2001.

market. A large volume of the euro-denominated financial trade began to take place in the United Kingdom, which paradoxically is still not a member of the EMU. Creation of the euro marked the beginning of the third and final stage of the EMU. By 2009, the membership of the Euro Zone had increased to sixteen. Slovakia became the sixteenth member in January 2009.

The EMEs that suffered crises in the 1990s had successfully integrated into the global financial markets. Following the tequila crisis of 1994-95 in Mexico, a string of economic and financial crises broke out in the EMEs. The largest and most notable was the Asian financial and currency crisis of 1997-98, which began in Thailand and its contagion effectengulfed four more Asian economies. It adversely affected the entire regional economy that had cultivated the image of being the most rapidly growing region in the world. They had earned global accolade for being “miracle” economies over the preceding three decades (Das, 2000). Financial globalization was roundly excoriated for destabilizing this sub-group of economies. The other financial crises of the 1990s included those in Russia, Brazil and Turkey. Argentina suffered a crisis in 2001-02.

The industrial countries suffered from the Long-Term Capital Management (LTCM) debacle in the US in 1999. The reason for this crisis was Russia’s default on its government obligations. With so many financial crises precipitating in such a short time span, it began to be acknowledged that global capital movements can have a strong negative influence over the recipient, lending, regional or global economies. It began to be pointed out that capital market integration could cause contagion effects between national financial markets and that one country’s irresponsible policies can spread easily to another country, no matter how responsible and vigilant. Evidence of a contagion effect was apparent in the Asian crisis. It swelled into a crisis with repercussions on stock markets globally. The IMF led the supranational organizations in preparing a strategic response. Large economies like China, the EU, Japan and the US joined in this endeavor. The US Federal Reserve that had launched a monetary contraction in the third quarter of 1997 pushed it back for fear of destabilizing the global markets further.

The 1990s was a period of boom in the capital markets of advanced industrial economies. Business firms raised more capital in bonds and equity markets than ever in the past. This boom in was accompanied by an increase in financial integration in this group of economies (Eichengreen and Sussman. 2000). The demand side developments also provided a boost to this boom. Both retail and institutional investors turned towards holding securities rather than bank deposits. This was a new mode of diversifying their portfolios, therefore, they increased their participation in the capital markets. In the early and mid-1990s, the EMEs of Asia were the major importers of capital from the global capital markets. They were among the most rapidly growing creditworthy economies in the world and external capital helped them finance their brisk GDP growth. After 1995, world capital markets experienced a dramatic increase. By 2006, global capital flows increased to 14.6 percent of the world GDP. At this point, they totaled $7.2 trillion, which was three times their level in 1995 (IMF, 2008c; de la Torre and Schmukler, 2007).

As explained below (section 8.2), recurrence of financial crises failed to slow financial globalization down. The most rapid increase in it was recorded in the

advanced industrial economies, but the EMEs and large developing economies were also becoming increasingly financially integrated. Many of these economies had reformed and strengthened their capital markets. These reform measures made them attractive destinations for global capital inflows, which in turn increased their rate of domestic investment. It helped in creating a broader entrepreneur class in these countries, which allocated imported capital efficiently and fostered economic growth. From the perspective of the global capital markets, this process facilitated international risk sharing.

After the grave 1997-98 financial crisis, the startled Asian EMEs became much less venturesome in the global capital market. They began taking defensive measures by amassing huge war chests for foreign assets. This snowballed into a saving glut. Once they emerged from the crisis, they turned into huge exporters of capital to the rest of the world. Consequently, the global capital markets were awash in low-interest capital. A large proportion of these capital exports went to the US, which had a just image of a safe haven for investors due to its deep and sophisticated financial markets. Krugman(2009) looked at the sophistication of the US financial markets in a negative light. He noted that the post-Regan era deregulation of the US financial system had prepared American bankers for “finding sophisticated ways … of hiding risk and fooling investors” (Krugman, 2009; p. 16). Large borrowings from China, Japan and the Asian EMEs went on ballooning the US current account deficits year after year. It topped 6 percent of DGP in 2006. The seeming ease with which the US current account deficit was funded led to the hypothesis that the deficit reflected the underlying strengths of the US economy in terms of productivity and financial market structure. Surging Asian savings also affected a number of European economies, like Britain, Ireland and Spain. Like the US, these economies were also poorly regulated. Also, the debt-fueled housing bubbles popped up in all the three countries, Britain, Spain and the US.

6.2 Learning from the Emerging Trends

To a perceptive analyst, financial integration that took place during the decades of 1980s and 1990s yielded plentiful policy lessons. In several EMEs (Brazil, Malaysia, Mexico, Korea, Russian Federation,Thailand) the twin strategy of a pegged exchange rate regime and openness to global capital market proved unsustainable. All of these economies fell into financial crises at one point in time or the other. However, this observation cannot be generalized. Not all economies become destabilized after integrating with the global capital markets. There were EMEs that supported their pegged exchange rate policy regimes with a strong commitment to following consistent monetary policies. Argentina and Hong Kong SAR came in this category of EMEs. These economies also had a proper regulatory system for their banking system and were careful about keeping banks well-capitalized. Therefore, they faced financial stress better and weathered their stormy periods without collapsing into crises.

Financial crises did not precipitate in the EMEs that maintained a flexible exchange rate regime in place of a pegged one. Singapore, Taiwan, South Africa and the post-1995 Mexico came under this category. Therefore, Mussa (2000; p. 38) concluded that economies that maintain “rigidly pegged exchange rates and free capital mobility” could only do so if other key macroeconomic policies, in particular monetary policies, “are subordinated to the goal of financial integration”. Another less that

emerged from the experiences of this period is that economies that have weak banking and financial systems needed to be cautious. It seems desirable for them to maintain controls over their capital inflows from the global capital market. The positive effect of maintaining restrictions over inflows and slowing down their rate of financial integration would be stability of their currency regime, which is a desirable policy objective indeed.

Statistical data relating to capital flows over this period has been presented in section 3. Capital flows from the global financial markets to the developing economies contributed to growth by stimulating investment and promoting financial development. Although capital flows to developing economies were subject to volatility, FDI inflows exhibited steadiest sustained growth. Growing role of FDI in capital flows to EMEs during this era was judged favorably by both academic researchers and financial analysts. In particular, FDI flows expanded considerably during the 1990s and dominated capital flows to EMEs. There was justified confidence the future growth of FDI to the EMEs. During periods of financial crises of the 1990s, FDI flows demonstrated stability. Conversely, portfolio investment in EMEs was marked by volatility, particularly during the periods of financial crises.Positive assessment of growth in portfolio investment in the EMEs and of resilience of the international financial system in dealing with any related problems proved to be somewhat exaggerated.

The crises of the 1990s demonstrated that global capital flows exposed the weaknesses of the domestic financial systems in the borrowing economies. As capital accounts were liberalized, banks and corporations became free to borrow from the global financial market. Currency and maturity mismatches occurred due to inadvertence in the borrowing economies, eventually leading to crises. These errors were common in the borrowing economies in which corporate governance was weak, regulatory infrastructure was underdeveloped and supervision was poor. They were also encouraged in an environment where governments were ready to provide unconditional financial safety nets. These weaknesses coalesced to create a setting ideally suited for the precipitation of a financial crisis.

6.3 Information Technology and Financial Markets

Advances in ICT, the newest sinew of globalization, are responsible for a sea change in the global economy. The ICT is a general purpose technology, or meta-technology, having a pervasive impact on an economy, or a sector thereof.[35]The last decades of the twentieth century is known for a rapid rate of advances in the ICT. Satellite television, cellular phone, the Internet and broadband connectivity created a veritable information and communication revolution. It was responsible for *inter alia* sharply reducing the costs of processing and communicating all forms of information and giving a lift to TFP. The ICT advances became a major supporter and promoter of financial globalization. Their contribution to reduction in costs of transactions in financial businesses extended to both the domestic and global markets. Their role in financial globalization cannot be overemphasized.

ICT advances made it possible to do financial business at two different geographical locations with ease, as if the transaction is being conducted locally. The same could

[35] See Das (2009), Chapter 1, for a detailed discussion on the significance of the role that ICT played in the contemporary phase of globalization.

be said about financial businesses entailing different financial sectors and services. Precipitous decline in the cost of financial transactions facilitated a sharp increase in global capital flows. However, there was a downside of declining cost and increase in the pace of financial transactions. If inward capital flows accelerated, the same happened to the outward flows. Any economic stress situation or financial pressures in the recipient economy led to rapid withdrawal of certain categories of capital, frequently exposing it to economic and financial instability.

As elucidated in section 8.1, global capital flows to the developing economies and the EMEs expanded at an unprecedented pace during the decade of 1990s. Economies and firms increasingly began to finance their operations from the global capital markets. As the cost of financial transactions covering a larger geographical area declined, financial institutions were reoriented. They were restructured for the purpose of covering larger geographical areas as well as greater functional range than they did in the past. This trend is discernible in the ICT-enabled restructuring of banking and other financial institutions and the resulting global integration of their operations.

7. Innovation through Securitization

The post-1980 benign environment in the global financial markets and the Great Moderation (section 2.8) coalesced to contribute to the birth of a new trend in financial innovation. A novel banking strategy was adopted in the capital markets of the advanced industrial economies. It was christened originate-to-distribute model. Its main instrument was securitization, which was a structured finance process designed for distributing risk to those who were better able to bear it, that is, investors with deep pockets. This inventive strategy allowed banks to originate loans, pool credit risks and sell them to investors. Securitization allows loans that were held on bank balance sheets to be repackaged into securities that can be sold to investors around the globe. Thus, securitization played a pivotal role in providing an impetus to globalization of finance (Brender and Pisani.2009). The credit risk transfer allows lenders to shift default risk to other investors, even though they keep the loans on their books. In a market-based financial system, that is built on securitization, both the banking system and capital markets become closely intertwined. With rapid digitalization and computerization of global finances, the new financial instruments were introduced at a rapid pace and their use proliferated globally at an equally brisk pace.

It must be stated that while they offered benefits, the structured products were complicated. The potential benefits that were offered by securitization made it look like a win-win game. Borrowers were provided with greater access to credit markets at lower costs and investors more investment options. The latter also saw greater opportunity to manage their risk exposure. Securitization encouraged lenders to lend, which in turn resulted in borrowing binge. When its use began, securitization was regarded as a pragmatic financial instrument that would promote financial stability because it transferred risk widely. It was spread among those who were able and willing to bear it.

The housing and real estate boom in the US was set off in the mid-1990s. It was fuelled by this financial innovation, that is, securitization of loans. The calculation was that credit risk could be swiftly transferred through securitization and therefore

larger amounts could be loaned for housing. This new innovation offered more. It allowed the lending banks the possibility of having to finance the loan only provisionally and relieving themselves of not only credit risk but also interest-rate risk and liquidity risk. This overly-optimistic expectation did not materialize.

Two quasi government-sponsored lending institutions, Fannie Mae and Freddie Mac, were created to support home ownership in the US. They played a critical role in innovating the securitization process. They were the second and the third largest lending institutions in the US, respectively, having combined assets of over $5.4 trillion. They controlled almost half of the US housing mortgage market by originating or buying home-based loans. They also insured and guaranteed them. In the early 1980s, they devised an ingenious way of accelerating their funding capacity. They bundled their mortgages into large pools. The next step was issuing bonds that gave investors a claim on income flows from the underlying loan pools. These mortgage-backed securities (MBSs) offered relatively attractive yields. Therefore a large number of investors quickly picked them up. Commercial banks watched carefully the securitization process. They entered the loan securitization business soon. From the perspective of the commercial banks, repackaging of mortgage loans into marketable securities was a lucrative concept. They could provide new intermediation services for high fees. Aided by securitization, the housing and real estate boom soon became a self-perpetuating bubble (Guttmann, 2009).

In the housing loan market, the banks making sub-prime mortgage loans in the US profusely utilized the new model of originate-to-distribute by securitization of these loans.[36] The sub-prime loans expanded and their stock reached $1,300 billion in 2006, compared with mere $100 billion in 1998. This expansion of sub-prime loans began in mid-2000s, when the prudential standards applied by those distributing these loans were markedly and continuously relaxed (Wellink, 2008). The result was steady deterioration in the quality of sub-prime loans. When defaults began mounting in the sub-prime housing loan markets, the problem spread rapidly across the US borders to the other matured financial markets where the credit risk was transferred. Financial distress was not exclusively limited to these markets and spread further.

Not only the sub-prime mortgages were granted to borrowers with unfavorable financial history but they were also allowed to take out a second loan to cover their down payments. Thus, homes were bought entirely on debt. Borrowers paid higher interest rates for “Alt-A” mortgages because they failed to meet the normal standards of income, wealth and credit-history. The two credit-rating agencies, Moody’s and Standard & Poor’s, became consultants to the banks, advising them on how to compose loan pools. As consultants they were earning lucrative fees from the lending banks. In their new role as consultant, conflict of interest was evident. Their high ratings of securitization transactions based on sub-prime mortgage loans were apparently not based on objective assessment. Culpability for the sub-prime mortgage muddle, to a great extent, goes to the credit-rating agencies and the dual, if unscrupulous, role they played (Lucchetti and Ng, 2007). Every issue of MBSs contained sub-prime mortgages, which carried high ratings with the rest of the pool. The credit-rating agencies consciously downplayed risk. Investors were deceived by

[36]These loans were called sub-prime because they did not meet the standards set by Fannie Mae and Freddie Macfor the “prime” loans guaranteed by these institutions.

the high ratings by the credit-rating agencies, which were apparently misleading, if not completely deceitful. They were lulled into believing that the securities that they were buying were safe.

In the new system of MBSs, the payment streams on the pools of mortgages were "passed through" to investors. As financial markets grew more innovative, the securitization process became progressively more complex. The next stage was to repackage these pass-through securities into other types of instruments called the collateralized mortgage obligations (CMOs). The pass-through income streams for the investors in the CMOs were carved up into different tranches. Bondholders were not provided pro-rata disbursement of cash flows. Instead CMOs were categorized on the basis of returns on principal by tranche holders. Intricacy of this process went on increasing and soon reached an uneasy and inscrutable level (UBS, 2009). Lloyd Blankfein, CEO of Goldman Sachs, admitted that in the run-up to the current financial crisis banks lost control of the exotic products they sold. He remarked, "The industry let the growth and complexity in new instruments outstrip their economic and social utility as well as the operational capacity to manage them" (FT, 2009).[37] He argued strongly in favor of complex, customized derivatives having more rigorous capital requirements.

The trigger for the problems in the US financial markets was the mounting defaults in the sub-prime mortgage market, which became a source of generalized uncertainty due to valuation losses of securitized products. The decade-long US housing boom ended in mid-2006. Credit rating agencies were justly blamed for playing down of the risk involved in MBS. These agencies were more interested in earning consultancy fee from the banks rather than honestly assessing risk.

The securitization process had a profound effect over traditional default and interest-rate risks. It transformed the two risks into hard-to-comprehend counterparty risk. It also made it exceedingly hard to monitor the two risks. It created a chain of incentive conflicts that led private and government supervisors to neglect their commonsense moral obligation to understand and control these risks. Kane (2009, p. 406) reasonably noted, "At every stage of the securitization process, incentive conflicts tempted private and government supervisors to short-cut and outsource duties of due diligence that they owed not only to one another, but to customers, investors and taxpayers".

In a financially globalized economy, spillover of financial distress occurred swiftly to other financial markets and institutions. Financial sector stress proliferated. It first spread to other financial markets and then began to adversely affect the real sector of these economies. Global economic growth was the direct victim. The recession put an end to the halcyon period of global finance. As the soundness of financial institutions varied in different economies before the onset of the financial crisis, they were affected to a differing degree by it. Financial institutions in Asia including Japan as well as in Australia and Canada had much smaller exposure to complicated structured products, compared with those in the EU and the US. This worked to their advantage as crisis spread into the global economy (Shirakawa, 2009).

[37]Cited in *The Financial Times,* September 9, 2009. These observations were made during a speech delivered to the Handelsblatt banking conference in Frankfurt.

8. Destabilizing Impact of Financial Globalization

The contemporary phase of economic and financial globalization, on balance, produced enormous aggregate benefits for the global economy as well as for several individual national economies (sections 4.2). It is having a measurable constructive impact over global living standards (section 5). The impact of this phase of globalization, in aggregate terms, has been positive and beneficial. Its impact on many segments of global economy has been prosperity-enhancing and overall highly desirable (Das, 2008c). This inference is beyond question.[38]However, this is not to refute the negative features and contradict the downsides of financial globalization.

Although standard economic theory denotes that financial globalization helps spread risk and enhances international and economic and financial stability, there is surfeit of evidence to show a large degree of instability associated with capital movements. Every crisis uncovers new channels of propagation of instability with sharp currency movement. The continuing (2007-09) global financial crisis has led to re-evaluation of the relationship between financial globalization, financial stability and crises. A pernicious feedback loop between financial and real sectors took a large toll on global output and trade. Both began plummeting sharply in the last months of 2008. Asset values fell precipitously both across the advanced industrial economies and the EMEs, dramatically attenuating household wealth and thereby putting downward pressure on consumer demand.

Other than creating volatility in financial and economic sectors of the economy, financial globalization is also believed to have led to inequality both between and within countries. These are indubitably legitimate concerns. Volatility in particular took a menacing dimension from time to time. Plenteous examples of it are available during both the earlier era of financial globalization and the present one (Das, 2006b).

It has been a subject of frequent observation that exposure of economies to the global financial markets caused financial, currency and banking crises. Each one of these had high economic, social and human costs. Financial crises tended to submerge the entire economies, inflicted massive economic and financial losses on firms and households. Losses are not limited to the domestic economy but trading partners also become vulnerable. Crises not only debilitated the financial and banking sectors of economies but also dealt cripple blows to the real economy. These crises often created an impression that the costs of financial integration are higher than the benefits. Therefore, merits of global financial integration came under recurrent forceful attacks. The turn of the 21st century was one such time point. Many critics of globalization regard financial globalization as the dark side of globalization. In some quarters a firm belief has taken firm hold that financial globalization is the Achilles heel of globalization.

If so, should one abandon financial globalization? Do crises and their frequency justify calling off of global financial integration? A considerate and perceptive response will have to be in the negative. The nexus between financial “integration and crisis vulnerability is neither direct nor a rigid one” (Krugman, 2000; p. 76).

[38] See Das (2003a) for a comprehensive account of financial globalization during the pre-2000 period.

8.1 Financial Crises Then

Crises and setbacks in financial market are not a new phenomenon idiosyncratic to current period. A glance at history suggests that periodic currency and financial crises wreaked havoc on the economies during various periods of globalization. Financial historians identified setbacks and stresses in the financial markets since the first era of globalization, and long before that. Notable research in this regard was done by Kindleberger (2000), who provided a detailed list of financial crises dating back to the tulip mania of 1636 in Holland. This was the first financial crisis noted and analyzed by financial historian. The decade of 1890s was important in this context. A series of serious financial crises occurred, some of which threatened to turn into systemic crises. The financial market in London, the largest of this period, played a stabilizing role. It provided much needed liquidity to assuage market volatility. This was the gold standard era. The roles played by the fixed exchange rate regime, global financial mobility and financial regulations and their relationship with the crises during this period were exhaustively studied (Bordo and Eichengreen, 1999; Neal and Weidenmier, 2005).

During the first era of globalization financial crises were in general relatively short-lived and in general of milder nature compared to those during the current era of globalization. However, Eichengreen and Bordo (2002) disagreed and established that currency crises of the former period were of longer duration, albeit recovery from banking crises was relatively more rapid than in those during the present period of financial globalization. In addition, banking crises of the pre-1914 period were less prone to undermine confidence in the currency. The result was that they were relatively easier to resolve because of the operating gold standard.

8.2 Financial Crises Now

Both the financial crises of the 1990s as well as the current (2007-09) financial crisis and recession provide a clear evidence of the fact that financial globalization under certain circumstances can lead to a crisis, at times severe ones. In this section I focus on the crises of the current period. These crises adversely affected individual, regional and even global economies. Given the high costs of these crises, policy errors causing them need be cautiously eschewed. Each crisis is *sui generis* and is precipitated due to special circumstances unto itself. The past and present crises came to pass because *inter alia* financial globalization put pressure on the governments to relax regulations and restrictions that govern the financial markets, which in turn rendered the financial markets vulnerable. Regulatory failure is usually regarded as one of the principal rationales behind many of these crises. Therefore, there is an imperious need for financial globalization to be handled in a pragmatic, clairvoyant and sagacious manner. Having sound knowledge about various direct and indirect linkages of global integration is imperative. Otherwise its negative effects can seriously destabilize national and/or global economies and overwhelm the positive ones.

In the contemporary period, financial crises, that can take domestic, regional and global dimensions, have gone on becoming increasingly complex. The global financial markets have undergone a substantial transformation since the debt crisis of 1982, which broke out in Mexico and first spread to all over Latin America and

then affected the rest of the financial world.[39] During this crisis large lending banks could coordinate with the small ones and the other financial intermediaries could be contacted and handled by the IMF. As a unique supranational institution of high integrity, the IMF could make them see their collective interest and persuade them to take an agreed route out of the crisis. However, the same could not be said the next financial crisis that broke out in Mexico in 1994-95. By this time, the securitization process had expanded enormously and the investor base had not only become much larger but also utterly heterogeneous. At this point, identifying, communicating and convincing this large and heterogeneous group of investors of their collective interest had become an exceedingly challenging task. The IMF faced an additional dilemma in restructuring and ameliorating the crisis in the latter case. It is called the moral hazard. That is, how to convince individual investors to stay in because their collective interest lay in that, albeit their individual interest evidently lay in getting out at an early time point. In such a case, moral hazard assumed a large dimension (Eichengreen and James, 2005).

An uncomfortable assertion is frequently made that a serious disadvantage of global financial integration is that it leads to periodic crises and that its absence can certainly result in tranquility in the world of finance. If so, the upshot of the multiple financial crises of the 1990s and early 2000s should have been deceleration of financial globalization. Paradoxically, they neither unfavorably affected the policy makers' decision process in the capital importing EMEs and the developing economies, nor adversely affected the confidence and perspective of the global investors. This was proved by the growth in mobility of international investment capital as well as the determination of investors to globally diversify their securities portfolios. This confirmed that the recurrent financial crises were not a barrier for the progress of financial globalization, as may be rationally expected.

When a crisis does occur, oftentimes the burden of culpability is instantly put at the door of financial globalization. Hastily blaming financial globalization is neither understandablenor logical. For instance, while discussing the current (2007-09) financial crisis, the lethal confluence of exceedingly low levels of interest rates[40] and unprecedented levels of liquidity that preceded the on set of the crisis are often ignored. Conventional wisdom attributed the 2007-09 crisis entirely to the sub-prime mortgage market and the collapse of housing-market bubble in the UK and US.[41] They are believed to have led to the credit crunch, which in turn mushroomed and spread to other advanced industrial economies. After a short time lag, financial turmoil engulfed the global financial markets. Such direct causal associations generally do not provide the correct underlying factors and are usually untenable and flawed.

[39]Argentina, Brazil and Mexico had borrowed large sums from international creditors for industrialization and infrastructure programs, which they could not repay. Mexico declared moratorium in August 1982.

[40] In the wake of the September 11, 2001, attack on the WorldTradeCenter, the US Federal Reserve Board lowered interest down to 1 percent and kept it there for almost three years, until mid-2004.

[41] Meltdown in securitization instruments in the US and UK began in the summer of 2007.Demirguc-Kunt and Serven (2009) provide an incisive account of the dynamics of the crisis.

Originating in the US, the current financial and banking crisis soon spread to Europe and inflicted itself on the rest of the global economy (The Economist, 2009b). After Lehman Brothers, a giant Wall Street investment bank, declared bankruptcy in September 2008, the crisis turned into a serious turn for the worse and became a full-blown and widespread global crisis. Financial turmoil affected the real economy exceedingly unfavorably and reinforced the cyclical downturn of the global economy. The GDP growth rate in the global economy, particularly the advanced industrial economies, spiraled down and the unemployment rate sharply upward. The GDP growth rate of the 4th quarter of 2008 was the lowest in a long time in all the major economies, including in China, Germany, India, Japan and the US. In the three of these economies—the high-income industrial ones—the GDP suffered a wrenching contraction, which continued into 2009. Indubitably, China, India and the other large EMEs suffered much less than the large advanced industrial economies, they also were not angst-free.

This financial crisis altered the perception and expectations of financial globalization. This was not only because of its depth but also because of its global extension. It demonstrated the world the consequences of globalizing financially without putting in place a commensurate regulatory structure. It has also exposed the structural weaknesses in the international financial architecture, which is overdue for earnest refurbishment. While the global financial landscape underwent a far-reaching transformation during the preceding two decades, the financial regulatory structure and financial architecture failed to adapt to it.

The acute problems of the banking sector and global credit freeze of 2008 were reflected in shriveling multilateral trade in goods and services. In early 2009, a global recession of severity not seen since the 1930s was in its initial phase. The continuing global financial crisis not only poses a fundamental challenge to globalization in general and financial globalization in particular, but also threatens to retard globalization and transform its character. Preceding three decades of global economic and financial integration and their widely spreading consequences had made the proponents of globalization euphoric. In early 2009, the same proponents pensively groped for the ramifications of the meltdown of 2009 (James, 2009). The financial meltdown rendered it difficult to defend the existing levels of financial globalization for them. The question whether mainstream international economists have been myopic, even ignorant, was seriously debated in the policy and economic conclaves. They were accused of being Panglossian about realistically determining the consequences of financial globalization.

9. Contemporary Global Integration and Expanding Middle-Class

Conclusive evidence is available to demonstrate that economic and financial globalization during the post-1980 period has had a remarkable and discernable impact over the global economy (Das, 2008c). Like the post-War era, for North America, Western Europe, Japan this period was one of unmatched prosperity (section 4.2). Subsequently, East Asian economies followed this group of advanced industrial economies (section 3). In particular, real income growth in the industrial economies during this period was unprecedented compared with real income growth in all other economies during all the pervious periods. In the post-1950 period, resurgence of Japan and subsequently the other East Asian economies demonstrated that a significant degree of catch-up with the matured high-income

industrial economies was feasible. It also became evident that the onward march of globalization could facilitate it. China's adoption of the *gaigekai fang* strategy (Section 5), and its rapid real GDP growth also credibly and noticeably demonstrated the same (Das, 2007).

Proponents of globalization, a group that includes the author, consider economic and financial integration as one of the most powerful transformative forces in the global economy. As seen above, several country and country-group cases exemplify the fact that globalization influenced not only their economic evolution but had a far-reaching economic impact on them. Much vaunted and oft-cited recent case is that of the East Asian economies. Economic and financial globalization enabled this group of developing economies to achieve what is known as 'income convergence' (see also section 3). Without denying the challenges and policy constraints that globalization imposed, it is just to say that economic globalization has been a source of dynamic change and has myriad of positive, innovative and dynamic traits. Although it is reflected in the increasing volume and value of international trade in goods and services relative to world output and expansion in short- and long-term capital flows, there is much more to it than that.

Global middle-class is a new term that is being bandied about. During the second era of globalization "an explosion of the world middle class" took place (O'Neill, 2008, p.16). This expansion was a direct and valuable consequence of the ongoing wave of globalization. It is altering the global economic contours and has become a clearly identifiable structural theme of the contemporary period. It has influenced global distribution of income and is spending economic power widely. If the middle-class is defined as households falling between incomes of $6,000 and $30,000, or €3,800 and €19,000, in terms of purchasing power parity (PPP), some 70 million people have been globally entering this income group annually. This expansion is set to continue over the next two decades and is "likely to be critical to how the world is changing" (Wilson and Dragusanu, 2008; p. 3). This novel trend is reminiscent of the formation of middle classes in the high-income industrial economies of today during the latter half of the nineteenth century.

This emergence of a large middle class has been heralded as "a silent revolution in human affairs" (*The Economist*, 2009a; p. 18). Its beneficiaries have been quietly transforming societies, while enjoying their fruits of enterprize, industriousness and assiduousness. Their success was propped up by macroeconomic growth, which in turn was bolstered by global economic and financial integration.

An estimate of the expansion of the middle-class was made by the World Bank (2007), which concluded that globalization would lead to convergence of a large number of developing economies, in the process enhancing the size of the global middle-class.[42] In 2000 7.6 percent of the world pupulation came in the category of the global middle-class. By 2030, this proportion would increase to 16.1 percent. That is, in 2030 over a billion people in the developing countries will have improved living standards which would change their consumption pattern of goods and services, as indicated in section 3. In 2005, only 400 million people in the developing world had access to such high living standards. These projections are based on the

[42] See Chapter 3, the World Bank (2007).

assumption that the globalization-led income convergence will progress at only a moderate pace.

In the developing economies, globalization has perceptibly helped burgeon the size of middle-class. Ravallion (2009) definined the middle class in a more appropriate, applicable and defensible manner than in the past. A persone with per capita consumption level between $2 and $13 a day at 2005 purchasing power parity (PPP) was defined to be in the middle-class. According to this new definition the size of the middle-class increased from 33 percent of the total population in 1990 to 49 percent in 2005. According to this estimate, the size of the middle-class increased staggeringly between 1990 and 2005, from 1.4 billion to 2.6 billion. An additional 1.2 billion people joined the middle-class over the period under consideration. A positive and sanguine conclusion indeed!

Ravallion's (2009) re-estimates suggest that East Asian economies contributed the most to the expansion of global middle class during the 1990-2005 period. It soared from 315.5 million in 1990 to 1,117.1 million in 2005. High growth rates in China and India played a decisive role in creating the middle-income bulge. In China there was a five-fold increase in the middle class, while that in India doubled. This large expansion in the middle-class in the developing economies, particularly the EMEs, reflects global distributional shifts that have entailed greater poverty reduction than possible under a distribution-neutral growth process. The mean income has risen, while the modal income level has changed little.

According to the two widely acclaimed Goldman Sachs studies (2003 and 2005), going forward the four BRIC economies and six members of the GCC (Gulf Cooperation Council) will be much larger in terms of GDP than they are at present. By 2030, all the four members of BRIC will be among the seven larges economies in the global economy. Several members of the N-11 group—in particular Egypt, the Philippines, Indonesia, Iran, Mexico and Vietnam—will also have much larger GDP sizes. These economies are likely to become those with considerable size middle-classes and therefore big consumer damand.

There will be two apparent consequences of this structural shift in the global economy. The first will be a shift in the spending power towards middle-income economies and away from the richest economies. As the large population countries come to have large middle-classes, they will dominate global spending power. The second shift will be the transfer in spending power towards middle-income households. This shift in spending power was evident since 2000. The pace of expansion of spending power of the middle-income households is likely to pick up further. It is likely peak by 2020. Wilson and Dragusanu (2008) estimated that by 2030 the size of the middle-class will grow to be 2 billion. In a select group of countries a large middle-class was created during the first era of globalization that lasted between the mid-19th century and the World War I. However, this will dwarf the middle-class expansion that took place during the first era by a large margin.

10. Summary and Conclusions

The concept of economic or financial globalization is not new. If anything, it is a several millennia old phenomenon. This paper essentially provides a backdrop of the

present periods of globalization, which essentially covers the period since the middle 19th century. Although its emphasis is financial globalization, it has not ignored the economic aspect of it. It is because the two are intricately and thoroughly intertwined pace. A functional definition of financial globalization can be integration of domestic financial system of an economy with the global financial markets and institutions. Although the beginning of economic and financial globalization can be regarded as an ancient phenomenon, we focus on the post-19th century developments.

Until the World War I it progressed at an unprecedented. This period is known for an unparallel free flow of goods and capital across international borders. Economic historians regard it as the first era of globalization. During this era gold standard monetary regime made momentous contribution to globalization. Consequently the early 20th century saw efficient operation of financial globalization. The large trading nations of this period swiftly adopted gold standard. Another idiosyncratic feature of this period was steady decline in the cost of transportation as well as declining tariffs. Consequently both international trade and the number and variety in traded products expanded enormously. The industrialized economies of Europe exported manufactured products to these and other countries. By this time, the Industrial Revolution had made a great deal of progress and the industrially advanced economies of Europe had a massive demand for the import of bulky raw materials, like bauxite, coal, nitrates, oil and rubber. The so-called New World economies played an active role by exporting agricultural products and raw materials.

With the breaking out of the World War I, the first era of globalization ended. The inter-War period is known for de-globalization or reverse-globalization. The gold standard system of fixed exchange rate was abandoned and floating exchange rate regime was adopted. Stringent capital controls were widely imposed to guard against currency crises and to protect domestic gold reserves.The floating exchange rate regime did not function efficiently and resulted in a great deal of global economic disorder and confusion. Exchange rate devaluations became the order of the day. Under the floating exchange rate regime, countries did not shy away from the begger-thy-neighbor kind of devaluations. Also, monetary policy was used to achieve domestic political objectives, like financing war time deficits. In a short time the global economic environment moved from practically *laissez-faire* to autarkic.[43]

The Bretton Woods System was adopted after the World War II. In all forty four allied nations and Argentina, a neutral country, participated in the Bretton Woods conference. Negotiations occurred around two rival plans presented by the Britain and the US.

One view regarding the onset of the contemporary phase of globalization puts it at the early 1950s. The new economic era that focused on supporting and encouraging interdependence, collaboration and mutual support among the important world economies is regarded as a new phase of contemporary globalization. It is believed to be resumption of economic and financial globalization. The world economy enjoyed a remarkable era of prosperity during the latter half of the 20th century. Although spread of prosperity and social services was fairly broad, it was far from uniform. Not everybody benefited from the spread of global prosperity. It was utterly

[43] James (2001) provides an in-depth treatment of the breakdown of globalization.

uneven in terms of spread among economies as well as individual population groups within the globalizing economies

There is another established view regarding the initiation of the contemporary phase of globalization. Some economic historians regard 1980 as the real beginning of what they call the second era of globalization. This period distinguishes itself from the first era of globalization by involving not only traded goods, services and capital but also a long inventory of services that were regarded non-tradable, before the Internet revolution. The contemporary phase of globalization is thought to have commenced around 1980 also because the global political and policy climate changed in favor of neo-liberal economic strategies around this time period. The contours of the global economy began to change. EMEs became active participants in the economic and financial and economic globalization. Also, a striking emergence of a global middle-class occurred during this period.

The decades of 1990s is known for several economic and financial crises, which had high economic and social costs. Among them the Asian crisis of 1997-98 was the major one. Economic and financial globalization of this period yielded plentiful policy lessons. This paper briefly discusses them.

ICT advances became a major promoter and supporter of financial globalization. They contributed a great deal to reduction in costs of transaction in financial businesses, both in the domestic and global markets. Their role in financial globalization cannot be overemphasized. Although the impact of the contemporary phase of globalization, in aggregate terms, has been positive and beneficial, this is not to refute the negative features and contradict the downsides of globalization. Global integration did lead to economic and financial vulnerabilities and has raised legitimate concerns. Two of the principal areas of justifiable concern are: inequality both between and within countries, and volatility in financial and economic activities. The latter in particular took a menacing dimension from time to time. Periodic currency and financial crises wreaked havoc on the economies.

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