Dissertation Project Report
On

Global economic crisis and its effects in India.

Submitted in partial fulfillment of the requirements for the degree of

Masters of Business Administration (MBA)
(Savitribai Phule Pune University)

By

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CERTIFICATE

This is to certify that the dissertation project titled **" Global economic crisis and its effects in India."** is conceptualized and developed in the form of a report by:

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_____

The project is the partial fulfillment of the requirements for the degree of ***"Master of Business Administration"*** and has been completed in stipulated time as per the statutes of university.

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INTRODUCTION

The report sheds light upon “The economic crisis” started in summer 2007, though the full impact was not felt till the bankruptcy of the investment bank, Lehmann Brothers in September 2008. The next couple of years witnessed heavy job losses and contraction in the GDP (Gross Domestic Product) of many countries in the West as well as in the developing world. The objectives of the research were to assess the human impacts of the crisis and to analyze whether responses by government and civil society were serving the interests of poor people.

The global crisis has affected India through three distinct channels: financial markets, trade flows, and exchange rates. The reversal in capital inflows, which created a credit crunch in domestic markets along with a severe deterioration in export demand, contributed to the decline of gross domestic product by more than 2 percentage points in the fiscal year 2008–2009. What started off with the subprime mortgage crisis quickly morphed into a full-fledged crisis of historic proportions prompting many commentators to draw parallels with the Great Depression of the 1930’s.

The report can be broadly grouped into three categories: causes of the crisis , the spread of the crisis (contagion through banks, investors, and other channels), and policies to reduce country vulnerability in the future(reserve accumulation, capital controls, prudential policies, and changes to the global financial architecture).

The samples and methods used were not consistent and the findings presented here are not definitive. Therefore, findings are triangulated with official data and secondary sources.

RESEARCH METHODOLOGY

Problem Statement

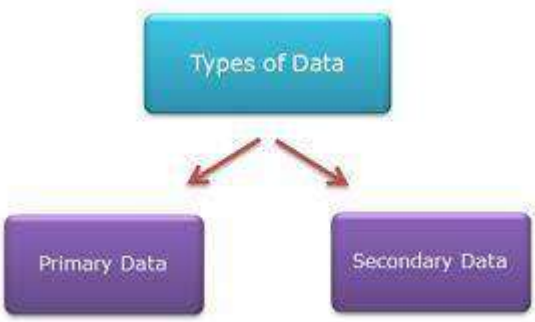
Problems that initially emerged in the U.S. sub prime market in 2007 quickly spread around the world to generate the most severe and synchronized global financial crisis and recession since the Great Depression. The global ramifications of this crisis were largely unforeseen and have forced a rethinking of international financial linkages.The present study focused on origin of the global economic crisis and the impact on Indian economy.

Objectives

1. To define the causes of the crisis (financial integration, capital flows and global imbalances)
2. To explain the spread of the crisis (contagion through banks, investors, and other channels)
3. The define the policies to reduce country vulnerability in the future(reserve accumulation, capital controls, prudential policies, and changes to the global financial architecture).

Type of research design: A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with the economy in procedure. In fact, the research design is the conceptual structure within which research is conducted. This research was conceptual in nature.

Fig 1. Types of Data:



Secondary Data

Secondary Data is the Data collected from already been used or published information like journals, diaries, books, etc. In this research project, secondary sources used were various Journal, Short Research Papers, and websites of various online economics and finance publishing journals.

Primary Data:

Primary Data is the data collected for the first time from the sources and never have been used earlier. The data can be collected though Interviews, Observations and Questionnaires.

Data analysis techniques:

The data for the study has been collected from secondary sources. The tools that are used to present the data in a meaningful way so that it becomes easily understandable. In this research tables and graphs were used for presenting the data.

REVIEW OF LITERATURE

AND

THEORETICAL BACKGROUND

Introduction:

There is now considerable evidence (NCEUS 2009, Mahajan 2009, Kumar 2009) to show that the global economic crisis has had a significant impact on developing economies. The initial idea that developing countries are 'decoupled' from the global crisis is no longer accepted as valid, as it is clear that multiple channels have transferred the crisis to these countries. The nine percent decline in world trade during the year 2008-09, the biggest decline since World War II, has led to a huge fall in exports from developing countries. Similarly, the crash in the equity market, emanating from capital outflow from developing countries has resulted in a severe financial crunch, with credit for small producers in the informal sector having almost dried up. It has been estimated that the capital outflow from the developing countries, in Asia, was about US$ 10 trillion by the end of 2008 (Chhibber et al. 2009). This is the equivalent to roughly one year's GDP, in this region. The pressure on the exchange rate coming from the capital outflow, declining reserves of foreign exchange, decline in exports, etc, reduced the value of national currencies, which in turn made imports of raw material and intermediate goods expensive . This has hit the industries dependent on these imports very hard. Finally, the decline in foreign direct investment (FDI) and in tradable services like tourism and Information Technology (IT) services has led to a further decline in growth and employment rates in developing economies. The International Labour Organization (ILO) has described the impact of the crisis as 'a global catastrophe' (ILO 2009). It has estimated that about 39 million jobs have been lost already at the global level and that this figure may go upto 59 million, in the worst case scenario. This number is in addition to 90 million new entrants in the labour market, who are unlikely to find jobs in the prevailing recessionary situation. Estimates made by the Food and Agriculture Organization (FAO) show that the number of hungry people has increased from 915 million people in 2008 to 1.02 billion people in 2009 (FAO 2009). Similarly, World Bank estimates say that there is an unforeseen increase in the number of poor, with about 60 million people being pushed into poverty by 2009 and 100 million likely to be pushed into poverty by 2010, in Asia alone (Chhibber et al. 2009). The Indian economy has been quite adversely affected by the global crisis, through the channels mentioned above. Indian exports crashed in the second half of 2008-09,

showing a decline in the quantum of exports of about 14 percent. The decline was more than 50 percent in some sectors like gems and jewellery, textile and garment manufacturing and leather goods. On the financial side, the capital outflows as well as decline in revenue resulted in a severe liquidity crisis. Decline in remittances from abroad, as well as in the FDI put severe constraints on the economy and on the Government. The depreciation of the Indian rupee has adversely affected the growth of industries that depend on imports of raw materials and intermediate products, both of which have become more expensive. The impact of the crisis in India, has been observed in the slowing down in the growth rate of the economy, between August 2008 and March 2009, by about four percent (Gangopadhyay 2009), and in the increase in unemployment (Labour Bureau Reports 2009). This phenomenon is not merely a 'slow down', but it is definitely a crisis for the affected sectors and workers, as there has been a sudden fall in production, employment, wages and earnings. The first survey of the Labour Bureau, Government of India, stated that the employment in the economy fell by 500,000 jobs during October-December 2008. The next survey, reported that one million jobs were lost, during January 2009. Though a slight improvement is observed in employment during January-March 2009, it is not clear whether this is sustainable (Labour Bureau 2009, Economic Survey 2009). Macro data, however, does not tell the full story. Since exports account for only 22 percent of the Gross Domestic Product (GDP), in India (NCEUS 2009), the decline in exports appears to have created a small direct impact on the economy. However, this impact is a matter of serious concern because first, the affected workers and small producers are largely in informal employment (they are therefore unprotected in a crisis like this) and second, the indirect impact and continuing impact in the subsequent rounds is likely to be significant and widespread. Informal workers constitute 92 percent of the total workforce in the country. There are about 58 million non-agricultural informal enterprises in the country, accounting for 31 percent of the exports from the country (NCEUS 2009). Any decline in exports impacts both the producers and the workers in these labour intensive sectors. Given the informal nature of their work (i.e. temporary, scattered, sporadic and short term), they are not likely to be represented in the quick surveys of the Labour Bureau. Thus, the macro picture hides more than it reveals with regard to the impact of the global crisis on the economy

Banking and economic crises have been a common phenomenon throughout the modern economic history of mankind. Since the great depression of 1929, the world

has witnessed hundreds of such crises and the frequency of the crises has increased over time. there were as many as 112 systemic banking crises from the late 1970s until 2001. Most of them, including the current one, have shared some common features: they each started with a hasty process of financial sector reforms, which not only created a vacuum in terms of regulations but also deteriorated the basic economic fundamentals though massive inflows of foreign capital and finally ended up with a change in investor expectations and a consequent mess in the financial markets. Seshan (2009) reported that the financial sector crisis that arose in the latter half of 2007 and was precipitated by the collapse of Lehman Brothers on 23 September 2008 shared most of these features. However, what makes the current crisis exceptional is that it broke out at the very epicentre of global capitalism and its contagion spread very quickly to the entire globe. India, being an integrated part of the global economic order, was also exposed to the adverse impact of the global economic crisis.

The Indian economy looked to be relatively insulated from the global financial crisis that started in August 2007 when the sub-prime mortgage crisis first surfaced in the United States (US). In fact, the Reserve Bank of India (RBI) was raising interest rates until August 2008 with the explicit objective of cooling the economy and bringing down the gross domestic product (GDP) growth rate, which visibly had moved above the rate of potential output growth and was contributing to the build up of inflationary pressures in the economy.1 But when the collapse of Lehman Brothers on 23 September 2008 morphed the US financial meltdown into a global economic downturn, the impact on the Indian economy was almost immediate. External credit flows suddenly dried up and the overnight money market interest rate spiked to above 20% and remained high for the next month. It is perhaps judicious to assume that the impacts of the global economic downturn on the Indian economy are still unfolding. Against this backdrop, this paper attempts an analysis of the impact of the global financial crisis on the Indian economy and suggests some policy measures to put the economy back on track.

The Indian economy looked to be relatively insulated from the global financial crisis that started in August 2007 when the ‘sub-prime mortgage’ crisis first surfaced in the US. But as the financial meltdown, morphed in to a global economic downturn with

the collapse of Lehman Brothers on 23 September 2008, the impact on the Indian economy was almost immediate. Credit flows suddenly dried-up and, overnight, money market interest rate spiked to above 20 percent and remained high for the next month. It is, perhaps, judicious to assume that the impacts of the global economic downturn, the first in the centre of global capitalism since the Great Depression, on the Indian economy are still unfolding. For the first time in 60 years, the IMF (2011) is now reported a global recession with negative growth for world GDP in 2009-10. The Horn (2010) has reported that GDP virtually collapsed in the second half of 2008 and further it declined by as much as nine percent in 2009-10.

Table 1. IMF Growth Projections

	GDP Estimates for 2009				GDP Estimates 2010	
	Jul 2008	Nov 2008	Jan 2009	Apr 2009	Jan 2009	Apr 2009
US	0.8	-0.7	-1.6	-2.7	1.1	-0.04
United Kingdom	1.7	-1.3	-2.8	-4.0	0.2	-0.4
Germany	1.0	-0.8	-2.5	-5.0	0.1	-1.0
Japan	1.5	-0.2	-2.6	-6.1	0.6	0.5
France	1.4	-0.5	-1.9	-2.9	0.7	0.4
Canada	1.9	0.3	-1.2	-2.5	1.6	1.1
Italy	0.5	-0.6	-2.1	-4.4	-0.1	-0.4
Russia	7.3	3.5	-0.7	-5.9	1.3	0.5
PRC	9.8	8.5	6.7	6.5	8.0	7.5
India	8.0	6.3	5.1	4.5	6.5	5.6
World	**3.9**	**2.2**	**0.5**	**-1.3**	**3.0**	**1.8**

Source: IMF (2008b, 2009).

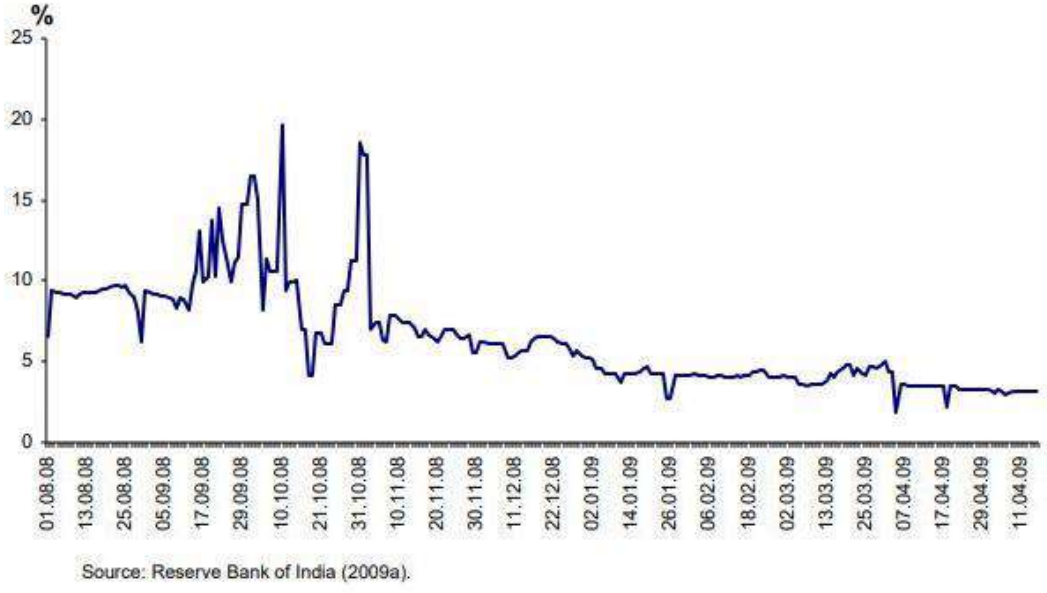
IMPACT OF CRISIS ON THE INDIAN ECONOMY Global Integration of Indian Economy In response to its balance of payments (BOP) crisis in the early 1990s, India implemented a series of trade, industry, and investment reforms. These reforms effectively liberalized the economy, ending a long period of relative isolation from global markets and financial and technology flows. Since then the Indian economy has become increasingly integrated with the world economy. Consequently, current account flows (receipts and payments of merchandise and invisibles) as a proportion of GDP increased from 20% in FY1990–1991 to 53% in FY2007–2008 (Figure 2). However, the most significant change can be witnessed in the capital account. Due to the rationalization of procedures and conditions for foreign investment, India has emerged as an attractive investment destination. This is reflected as an increase in

foreign portfolio investment inflows from US$2 billion in FY2001–2002 to US$29 billion in FY2007–2008. Foreign direct investment (FDI) inflows have also gone up significantly in recent years, having risen to US$34.3 billion in FY2007–2008 from US$6.1 billion in FY2001–2002. At the same time, Indian corporations have also entered the global market for mergers and acquisitions, resulting in some capital account outflow from India. As a result, two-way flows of portfolio and direct foreign capital have gone up from a mere 12% of GDP in FY1990–1991, to 64% of the GDP in FY2007–2008, registering a fivefold increase. Interestingly, these ratios are significantly higher than those in the US, for which trade in goods and services constituted only 41% of GDP in 2007 and capital flows another 25% in the same year.

Transmission of the Crisis to the Indian Economy: With India's increased linkage with the world economy, India could not be expected to remain immune to the global crisis or be decoupled from the global economy. While it is true that the Indian banking sector remained largely unaffected because of its very limited operations outside India or exposure to sub-prime lending by foreign investment banks, the global crisis has affected India through three distinct channels. These channels are financial markets, trade flows, and exchange rates. The financial sector includes the banking sector, equity markets (which are directly affected by foreign institutional investment [FII] flows), external commercial borrowings (ECBs) that drive corporate investments, FDI, and remittances. The global crisis had a differentiated impact on these various sub-sectors of the financial sector. Given prudent regulations and a proactive regulator, 7 the Indian banking sector has remained more or less unaffected, at least directly, by the global crisis. The imposition by the RBI of a higher provisioning requirement on commercial bank lending to the real estate sector helped to curb the growth of a real estate price bubble. This is one of the few global examples of a counter cyclical capital provisioning requirement by any central bank. In general, Indian banks were not overly exposed to sub-prime lending. Only one of the larger private sector banks, ICICI Bank, was partly exposed but it managed to thwart a crisis because of its strong balance sheet and timely action by the government, which virtually guaranteed its deposits. The banking sector as a whole has maintained a healthy balance sheet. In fact, during the third quarter of FY2008, which was a nightmare for many big financial institutions around the world, banks in India announced encouraging results. Against an absolute decline in the profitability of

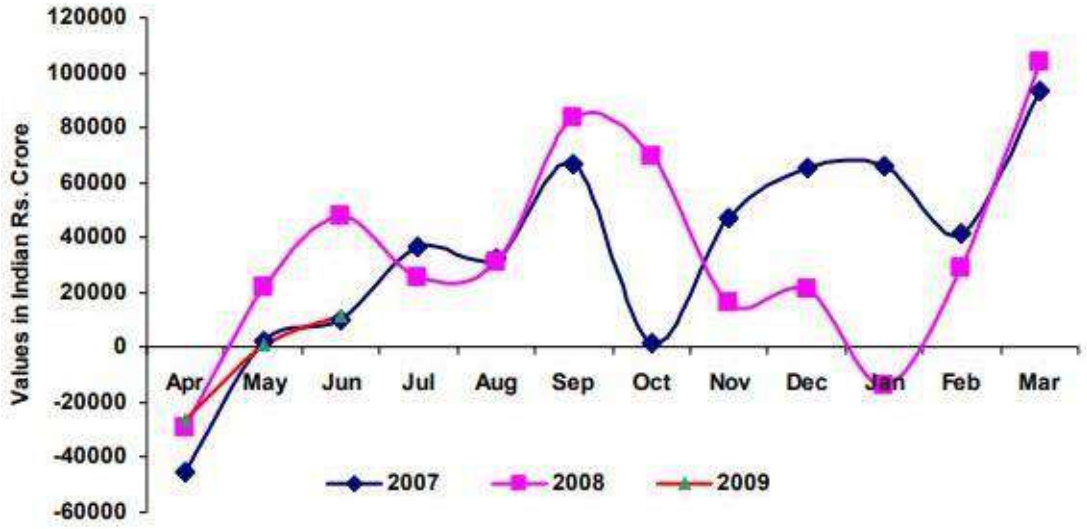
non-financial corporate enterprises, the banking sector witnessed a jump of 43% in its profitability . A ban on complex structures like synthetic securitization coupled with a close monitoring of appropriate lending norms by RBI also ensured a better quality of banking assets. The non-performing assets as a ratio to gross advances have remained well within prudential norms . Further, with an average capital risk weighted assets ratio (CRAR) of 13%, Indian banks are well capitalized and better placed to weather the economic downturn. However, the indirect impacts of the crisis have affected Indian banks quite badly. The liquidity squeeze in global markets following the collapse of Lehman Brothers compelled Indian banks and corporations to shift their credit demand from external sources to the domestic banking sector. This move exerted a lot of pressure on liquidity in the domestic market and consequently short-term lending rates shot up abnormally. The inter-bank call money rate spiked to 20% in October 2008 and remained high for the next month . This credit crunch, coupled with the loss of confidence that followed the Lehman Brothers episode, increased the risk aversion of Indian banks and eventually hurt credit expansion in the domestic market. Contrary to the trend, non-food credit expansion started declining in November 2008 and became negative in January 2009 . The magnitude of the impact of the crisis can be understood from the fact that non-food credit expansion during last five months of FY2008–2009 has declined by more than 68% as compared with the same period in previous financial year.

Graph 1- .Daily Weighted call money rate



Source: Reserve Bank of India (2009a).

Graph 2 -.Month of Month Change in outstanding non food credit

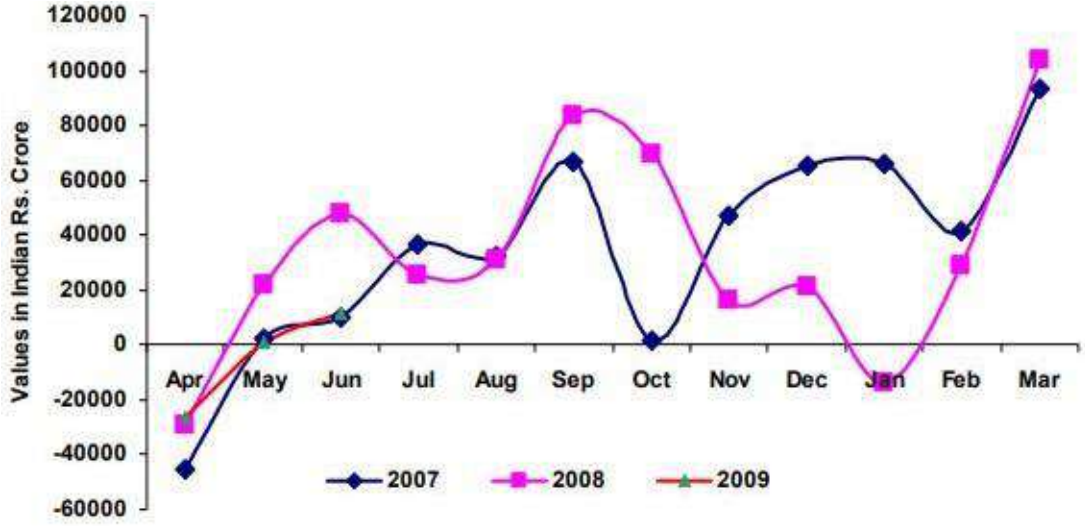


Source: Reserve Bank of India-Weekly Statistical Supplements-Extracts.
Available: http://www.rbi.org.in/scripts/BS_ViewWSSExtract.aspx (accessed 30 June 2009).

After an impressive performance for nearly five years, foreign capital inflows lost their momentum in the second half of 2008. The most significant change was observed in the case of FIIs, which saw a strong reversal of flows. Against a net inflow of US$20.3 billion in FY2007–2008, there was a net outflow of US$15 billion from Indian markets during FY2008–2009 as foreign portfolio investors sought safety and mobilized resources to strengthen the balance sheet of their parent companies. This massive outflow of FII created panic in the stock markets. Consequently, equity markets lost more than 60% of their index value and about US$1.3 trillion of market capitalization from an index peak of about 21,000 in January 2008 to 8,867 by 20 March 2009. This bad run at Dalal Street8 wiped out the primary market completely, which had been flourishing before the onset of the crisis. Between FY2007–2008 and FY2008–2009, fund collection through the primary market declined by 63%. In 2007, 106 initial public offerings (IPO) were issued and raised a total amount of about US$11 billion. In contrast, only 38 IPOs were issued in 2008 and resulted in accumulations of only US$3.8 billion. Given the presence of unutilized liquidity in the global market, and India being one of the few countries with positive growth, FIIs have once again started flowing back to India . During the first two months of the current financial year (April and May 2009), Indian equity markets received net FII inflows of more than US$5 billion. Consequently, equity markets have partially gained their lost value. However, owing to prevailing uncertainties, the primary

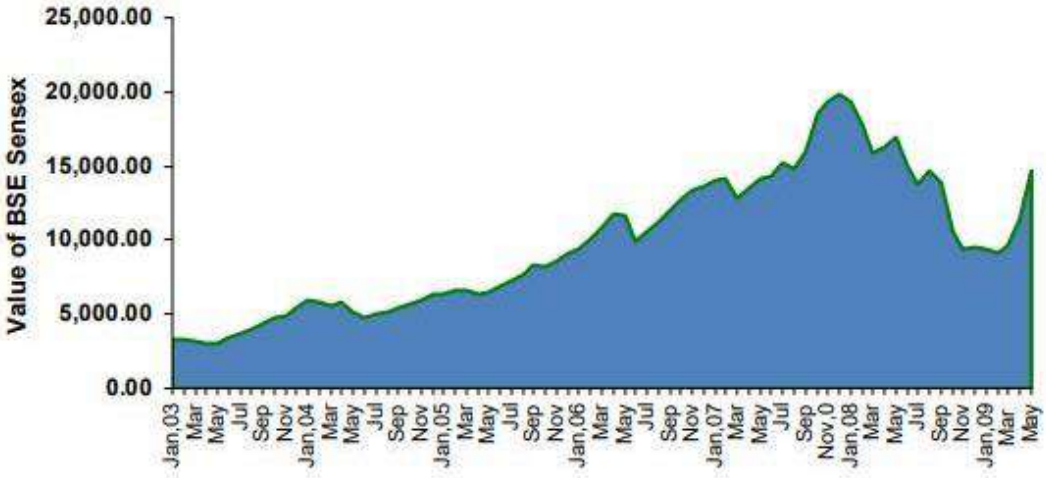
market has still not shown any sign of recovery. Most of the companies have put their IPOs on hold and only one IPO has been issued so far in 2009.

Graph 3.- Monthly net FII inflows



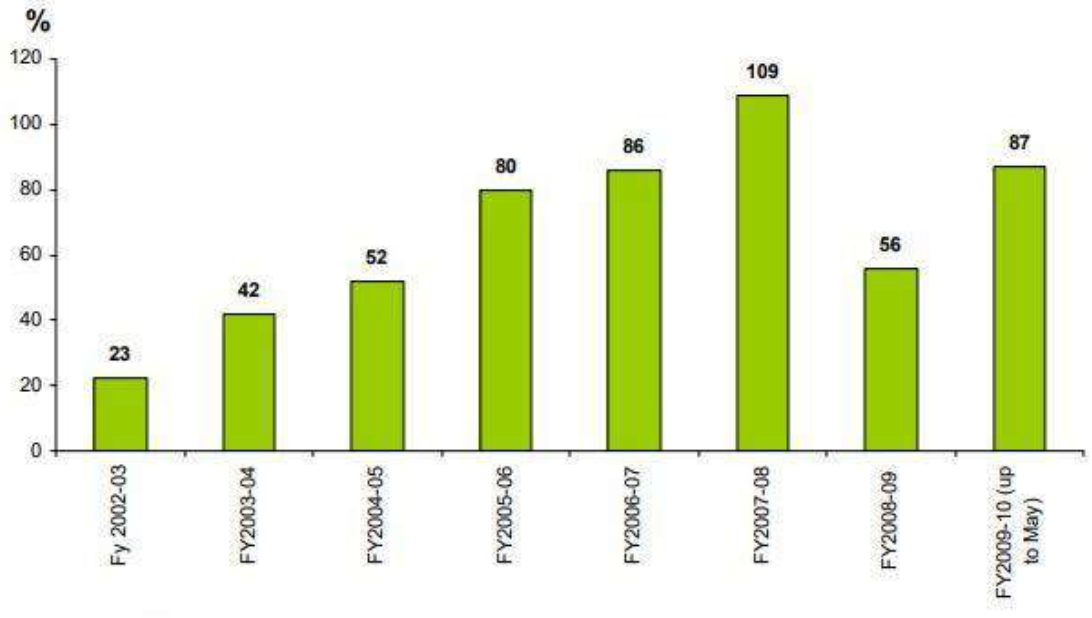
Source: Reserve Bank of India-Weekly Statistical Supplements-Extracts.
Available: http://www.rbi.org.in/scripts/BS_ViewWSSExtract.aspx (accessed 30 June 2009).

Graph 4.- BSE Sensitivity index



Source: Historical values for Bombay Stock Exchange indices.
Available: http://www.bseindia.com/histdata/hindices.asp (accessed 30 May 2009).

Graph 5 - Market capitalisation in GDP

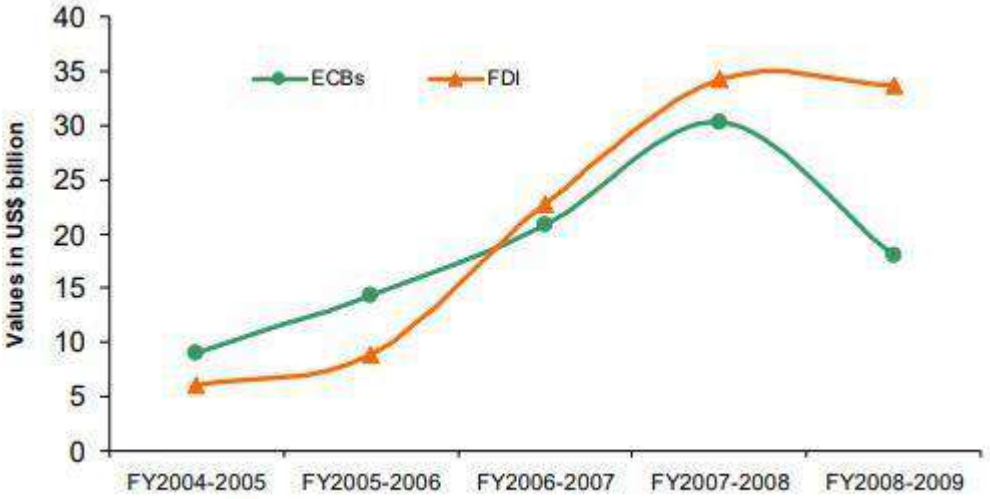


Source: Author's calculations compiled from Bombay Stock Exchange Key Statistics. Available http://www.bseindia.com/about/st_key/volumeofturnoverbusiness_tran.asp (accessed 30 June 2009) and Central Statistical Organization (2009).

The economic boom in India from FY2004–2005 to FY2007–2008 has also been accompanied by a substantial increase in the inflows of FDI and external commercial borrowings. The inflows of FDI increased from US$6 billion in FY2004–2005 to US$34.3 billion in FY2007–2008 . The surge in FDI not only improved the domestic rate of capital formation but also helped many industries improve in a technological capacity due to the technology inflows that accompanied these FDI inflows. Like FDI, the inflows of ECBs also went up from US$9 billion in FY2004–2005 to US$30.3 billion in FY2007–2008, registering a threefold increase over four years. The spurt in ECBs benefited Indian entrepreneurs in two different ways. First, it supported them in their overseas mergers and acquisitions, making it easier for them to gain a market presence in target countries. Secondly, the influx of ECBs allowed Indian firms to finance their domestic capacity expansion at relatively lower capital costs. Both FDI inflows and ECB volumes have been adversely affected by the turmoil in the financial markets in advanced economies. Given the credit crunch in the global markets since September 2008, Indian corporates managed to raise only US$18 billion in FY2008–2009 as commercial credit from the overseas market, which is 41% less than the amount raised in the previous year. The fall was rather phenomenal during the second half of FY2008–2009 , when ECB approvals9 declined from US$3 billion in September 2008 to less than US$0.5 billion in February 2009. Likewise, though not to

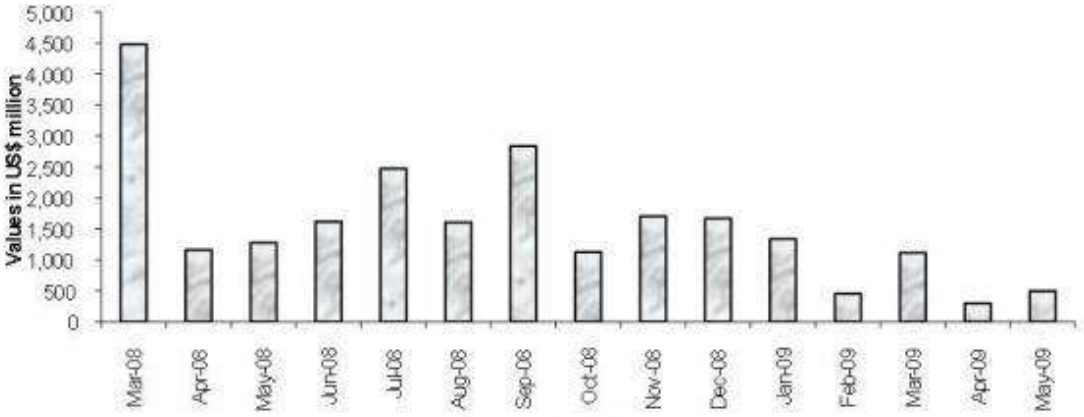
the same extent, FDI inflows have also taken a hit. For the first time in last six years, FDI inflows witnessed a negative growth of 2% in FY2008–2009.

Graph 6 - Annual ECB and FDI Inflows



Source: Reserve Bank of India (2009a).

Graph 7 - Monthly External Commercial Borrowing, Approvals



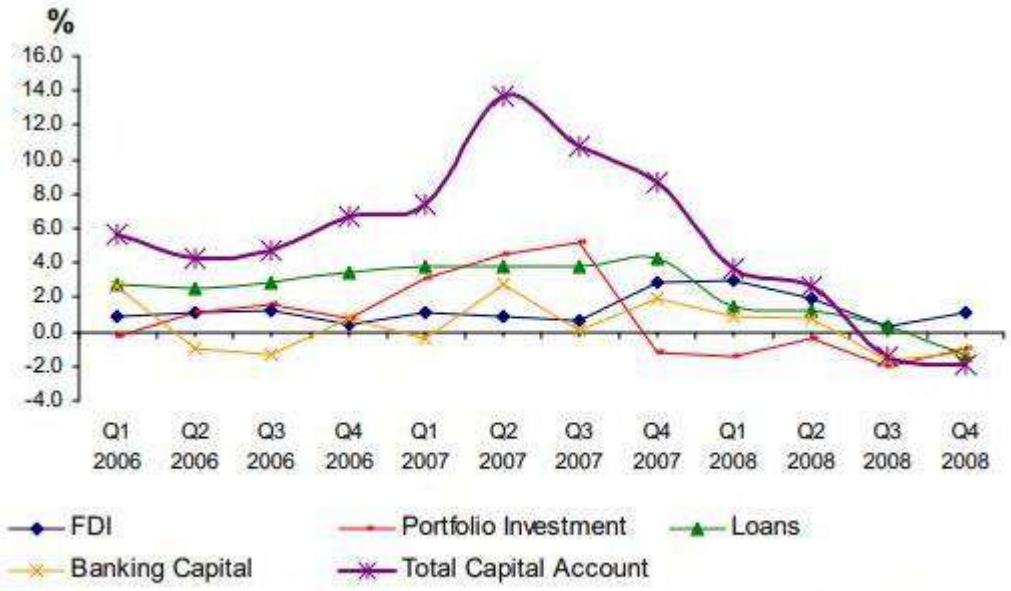
Source: External Commercial Borrowings, Reserve Bank of India.
Available: http://rbi.org.in/scripts/ECBView.aspx (accessed 20 June 2009).

Remittances are another source of inward foreign capital flows that in the past have helped to balance India's large trade account deficit and keep the current account deficit at a reasonable level. The remittances from overseas Indians started feeling the impact of the global crisis during the third quarter of FY2008–2009 when, on a year-on-year basis, they declined by 0.5%. The impact becomes more evident in the fourth quarter of FY2008–2009 when the inflow of remittances declined by more then 29% as compared to the same period in previous year. With the poor economic outlook for oil producing economies in the Gulf and West Asia, coupled with rising

pressure against immigration in advanced countries, it is expected that remittances will further decline in the coming quarters.

The sluggishness of the inflows of FDI, ECBs, and remittances combined with the massive outflow of FII has resulted in the significant deterioration of India's capital account in FY2008–2009. From its peak in September 2007, the capital account surplus as percent of GDP started to decline and disappeared completely by December 2008 (Figure 13). This is the first time after a long period that the capital account component of India's BOP has been negative.

Graph 9 - Capital Account BOP% of GDP



Source: Author's calculations compiled from Reserve Bank of India (2009c); Central Statistical Organization (2009).

The second transmission of the global downturn to the Indian economy has been through the steep decline in demand for India's exports in its major markets. Gems and jewelry was the first sector to feel pressure at the very beginning of the global meltdown. In November 2008, it witnessed a sharp decline in export orders from the US and Europe, which resulted in a retrenchment of more than 300,000 workers. Since then, the negative impact has expanded to other export-oriented sectors such as garments and textiles, leather, handicrafts, marine products, and auto components. Merchandise exports have registered a negative average growth of 17% from October 2008 to May 2009. The decline in exports has been accelerating, falling by 29.2% in May 2009 as compared to the same month in 2008 . In all likelihood, it seems difficult for merchandise exports to recover within this calendar year.

Like merchandise, exports of services are also facing a rather steep downturn. During the third quarter of FY2008–2009, growth in service exports declined to a mere 5.9% as compared to 34.0% in the corresponding period a year back. The earnings from travel, transportation, insurances, and banking services have contracted, while the growth rate of software exports has declined by more than 21 percentage points . The real shock came in the fourth quarter of FY2008–2009 when service exports witnessed a contraction of 6.6% as compared to the same period in the previous year. The sluggishness of the inflows of FDI, ECBs, and remittances combined with the massive outflow of FII has resulted in the significant deterioration of India's capital account in FY2008–2009. From its peak in September 2007, the capital account surplus as percent of GDP started to decline and disappeared completely by December 2008 . This is the first time after a long period that the capital account component of India's BOP has been negative.

Table 2 - Quarterly estimates of GDP for FY2007-2008 and FY 2008-2009

Industry	FY2007–2008					FY2008–2009				
	Q1	Q2	Q3	Q4	Annual	Q1	Q2	Q3	Q4	Annual
1. Agriculture, Forestry, and Fishing	4.3	3.9	8.1	2.2	4.9	3.0	2.7	-0.8	2.7	1.6
2. Mining and Quarrying	0.1	3.8	4.2	4.7	3.3	4.6	3.7	4.9	1.6	3.6
3. Manufacturing	10	8.2	8.6	6.3	8.2	5.5	5.1	0.9	-1.4	2.4
4. Electricity, Gas, and Water Supply	6.9	5.9	3.8	4.6	5.3	2.7	3.8	3.5	3.6	3.4
5. Construction	11.0	13.4	9.7	6.9	10.1	8.4	9.6	4.2	6.8	7.2
6. Trade, Hotel, Transport, and Communication	13.1	10.9	11.7	13.8	12.4	13.0	12.1	5.9	6.3	9.0
7. Finance, Real Estate, and Business Services	12.6	12.4	11.9	10.3	11.7	6.9	6.4	8.3	9.5	7.8
8. Community, Social, and Personal Services	4.5	7.1	5.5	9.5	6.8	8.2	9	22.5	12.5	13.1
9. GDP	**9.2**	**9**	**9.3**	**8.6**	**9**	**7.8**	**7.7**	**5.8**	**5.8**	**6.7**

Source: Central Statistical Organization (2009).

Overview of the Selected Sectors

The global diamond industry is organized in a value-chain, which covers exploration and mining, sorting, cutting and polishing, jewellery manufacturing and retailing. Diamond cutting and polishing, which is labour intensive and distributed among the developing countries, contributes only around eight percent of the value added. India is a major country involved in this process, but is integrated at the lowest end of the value chain. The country is highly dependent on the global market, both for raw materials as well as for marketing. The crash in the US markets reduced the demand for diamonds by half, and the traders cut back demand production even further as a precautionary measure. As a result, this sector has been severely affected by the global crisis. The crisis has also impacted the sector through the financial sector and the fall in the exchange rate. It is estimated that there are about 8,000

diamond cutting and polishing units in the country, that provide employment to between 800,000 to 1,000,000 workers. (RBI 2009, Government of Gujarat 2009 and SDA 2009). Though all diamond units are required to be registered under the Factories Act3, according to Government records, there are only 532 registered units, employing 127,000 workers. About 80 percent of the total diamond manufacturing units are in Gujarat and more than half of these are in Surat. Hence, the study was conducted in Surat and in Bhavnagar (to meet with workers who had returned to their original villages after losing employment in the diamond centres).

Engineering Industry: The Engineering Industry produces a variety of intermediate goods and capital goods and has significant backward linkages with a number of vital sectors in the economy. Heavy engineering goods cater to power; infrastructure including real estate development, steel, cement, petrochemicals, oil and gas, refineries, fertilizers, mining, railways, automobiles, textiles, etc. Light engineering goods are inputs to heavy engineering industry. This industry, which has shown a rapid growth in the post reform period, exports a variety of goods. In 2008-09, the sector accounted for 26 percent of manufacturing exports, of which 6.5 percent was from machine tools, machinery and equipment, 6.6 percent was from transport equipment and about nine percent from manufacture of metal primary and semi-finished iron and steel (CMIE, 2009). The engineering sector is highly fragmented at the lower end (e.g. unbranded transformers for the retail segment) and is dominated by smaller players, who use medium to low-end technology, and manufacture low-value added products. According to available estimates there were nearly 175,000 units employing about 840,000 workers in the machinery and equipment industry (NIC code 29). Of these about 95 percent of the units and 58 percent of the workers were in the unorganized (non-factory) sector. This sector, which was already facing several constraints such as unstable input prices, power shortages, infrastructure gaps, etc, coupled with increased imports and appreciation of the rupee, faced another set back, due to the financial crisis and the consequent dip in its exports. The decline in foreign investment and the devaluation of the rupee against the strengthening US dollar created additional problems. The industry has suffered a ‘double squeeze’- a decline in the demand in the global market and the subsequent decline in the domestic demand. (GoI 2009). The sector study covered two predominant centres of the engineering industry; Coimbatore in Tamil Nadu and Rajkot in Gujarat.

Auto parts Industry: The Indian auto component industry has done remarkably well in recent years, recording 18 percent growth during the period from 2001-02 to 2006-07. Its exports also grew at a compound annual growth rate (CAGR) of 23.56 percent during 2001-02 to 2006-07, and the share of the exports in total production increased from 12.93 percent in 2001-02 to 18.48 percent in 2006- 07, accounting for exports worth Rs.2.22 billion (US$ 0.06 billion) in 2006-07. In spite of the commendable growth of this industry, however, the working conditions, income levels and social security of the workers, particularly in tiny and small firms, have not improved as expected. There are 400 large firms in the organized sector in this industry, and about 10,000 firms operating in the unorganized sector, manufacturing low-tech auto parts and components. The entire industry is organized in about 10 major clusters in the country, located in Haryana (Gurgaon), Punjab (Jalandhar, Phagwara and Ludhiana), Maharashtra (Aurangabad and Pune), Madhya Pradesh (Pithampur), Bihar (Jamshedpur), Tamil Nadu (Chennai) and Karnataka (Belgaum). These clusters account for over 93 percent of the output. Since the first quarter of the last fiscal year, India's auto component makers are in the grip of one of the biggest crises ever. The entire supply chain of auto companies has been impacted by the economic meltdown. Units, from large companies to small-scale units, are facing a fall in demand of between 20 to 30 percent and a stiff liquidity crunch. The impact of the US crisis has aggravated the constraints that the industry was already facing (particularly the small enterprises); such as problems related to prices of raw materials, access to credit and markets, etc. The liquidity crunch, inventory pile up and re-scheduled export orders have taken the sheen off the auto component industry, and for the first time in a decade, the sector has clocked single-digit growth and registered a fall in earnings, The Auto Component Manufacturers Association (ACMA), projected a six percent growth in turnover and 5.5 percent growth in export earnings during 2008-09 as against 20 percent and 24 percent respectively, in previous years (ACMA Newsletter, January 2009). Ludhiana, one of the biggest auto parts centres in the country, was selected for the in-depth study. Textiles and garment Industry : The textiles and garment industry is one of the important industries in the global economy, as well as in the Indian economy. It has shown rapid growth in the global economy and has grown from US $ 212 billion in 1990 to US $ 396 in 2003 and further to

US $ 500 billion in 2008-09 (before the crisis). In India, the industry is responsible for 20 percent of the total export earnings and provides direct employment to about 38 million people. India is ranked in seventh place among countries that export textiles. The garment industry is a relatively new industry. With a modest beginning in the 1970s, it has grown into a gigantic industry, and is spread all over the country. This industry received a big push after the expiry of quota restrictions in 2005, and produces about 8,000 million pieces of output valued at US$ 28 billion (2006-07). The garment industry is largely in the unorganized sector and 92 percent of the employment in the sector is informal employment. Sub-contracting and out-sourcing of production is a common practice as is home based production. About half the workers are engaged in home based production and this segment was the focus of the survey. Women workers are dominant in the garment industry. However, highly skilled tasks within the sector such as cutting of fabrics and stitching of final garments, especially The export demand for garments started falling in the later half of 2008 and continued to decline thereafter. Two important garment centres, Indore in Madhya Pradesh and Ahmedabad in Gujarat, were selected for a detailed study of the impact of the crisis on this sector.

Chikan Craft

: Handicrafts are a unique expression of the culture, tradition and heritage of India and the handicrafts industry is an important sector of the Indian economy, providing employment to a large section of the population. Though exports of Chikan craft, like other handicraft export products, have been seeing a decline in their markets during the last 25 years or so, there has been a sudden and huge fall in the exports after the global financial crisis. According to the figures released by the Export Promotion Council of Handicrafts (EPCH), exports of embroidered and crocheted goods, which amounted to Rs. 51,450 million in 2007-08, declined to Rs. 29,360 million in 2008-09; a decline of more than 40 percent. Since a majority of the Chikan workers are informal workers, who work at home and are paid very low wages, and do not have access to any social protection, this crisis has meant the loss of livelihoods for a number of people. Lucknow is a major centre for Chikan craft and was therefore selected for this study.Agriculture: Indian agriculture as a whole is not a globalized sector. However, some pockets, which grow crops for export and export a significant proportion of their output, are integrated with global markets and are therefore

vulnerable to global fluctuations in demand and price. The sector study covers four export crops, namely, cotton, castor, cumin and sesame. The global prices of these crops rose substantially in 2007 and in the first half of 2008, raising the incomes of the farmers engaged in growing these crops. However, due to the global crisis, these prices dropped dramatically in the second half of 2008. For instance, the price of castor in March 2009 was Rs.1,990 per quintal (a quintal is equal to 100 kgs) as against Rs. 2,875 per quintal in September 2008. The price of cotton has also come down to Rs.2,600 per quintal, from a peak of Rs.3,375 in July 2008. The total exports of cotton fell from 8.50 million bales in 2007-08 to 2.28 million bales between August 2008 and June 2009. The plummeting international cotton price has led the Government of India to hike the minimum support price by 40 percent, resulting in a steep rise in domestic prices, and a steep fall in the demand for domestic cotton. Similarly, the exports of castor seeds declined from 3,35,000 metric tonnes (a metric tonne is equal to 1,000 kgs) in 2008 to a mere 60,000 metric tonnes during the first seven months of 2009 and went down even further, later. As a result, farmers, who planted these cash crops in the hope of earning well, were adversely impacted when the time for harvesting the crops came. This sector study has selected regions where these cash crops (castor, cotton, cumin and sesame) account for a substantial part of the production and a significant portion of the output is exported. Growers of these crops in five districts, namely, Mehsana, Vadodra, Kheda-Anand, Surendrangar and Patan from Gujarat have been selected for an in-depth study. Thus, the six sectors broadly represent the range of affected sectors in the economy. Gems and jewellery is a sector that is highly integrated with the global market. It depends almost totally on imports for raw materials and exports for markets; the home based garments and Chikan craft industries export a significant part of their output, but also have a huge domestic market; auto parts and engineering industries also export a significant proportion of their output and have a well-developed domestic market. Agriculture is the least globalized sector, with only some regions exporting selected agricultural produce. The sectors vary in organization of production, with Chikan craft and garments being significantly home based, agriculture carried out on family farms with participation of family members; while auto parts, engineering and diamond cutting and polishing have small production units outside the homes. The home based garments and Chikan craft sectors employ a large number of women. Agriculture also has significant participation by women; while in the remaining three sectors, women

constitute less than five percent of the workforce (Hirway 2009, Shah 2009, Kumar 2009). Wages and incomes of the workers differ considerably across the sectors. The average monthly income before the crisis was the highest in the engineering industry (Rs.6,888) followed by the gems and jewellery industry (Rs.5,846) and in third place by the auto parts industry (Rs.3,850). The average monthly income in the other sectors was much less, Rs.3,233 in agriculture, Rs.1,877 in home based garments and Rs.978 in the Chikan craft sector It is important to note that that most workers in home based garments and Chikan craft industries were poor even before the crisis. However, their condition became much worse after the crisis. The features that are common to all the sectors are (i) all these sectors have grown rapidly in the last few years, largely due to growing export markets. (ii) small producers or informal units are predominant in all these sectors and (iii) most workers engaged in these industries are informally employed. (Keynes, 1930) concerning the returns he can expect and despite the fact that the more people save the lower would be the actual returns (TDR 2006, annex 2 to chapter I).Efficient financial markets are expected to overcome the uncertainty about the future and the frequency of crisis in these markets may be the result of the "mission impossible" that is expected from them. Or is their vulnerability mainly due to their scale (which nominally dwarfs the real economy) and their vital role for all other markets at the national and international level? Or do financial markets function in a different way than goods markets, perhaps in a way that systematically encourages the emergence of asset-price bubbles through a herding effect induced by the activity of large-scale investors? Obviously, there are strong arguments for all these hypotheses. However, a brief comparison of the logic of investment in fixed capital in a dynamic evolutionary setting (through traditional banking, i.e. lending money as an intermediary between central banks and savers on the one side and borrowers on the other) and investment in financial markets (through the now-crippled investment banks, for example) explains why capital markets seem bound to fail the more "sophisticated" they are, whereas for the markets for goods and services efficiency can never be too much. Investment in fixed capital is profitable for the individual investor and society at large if it increases the future availability of goods and services. No doubt, replacing an old machine by a new and more productive one, or replacing an old product by a new one with higher quality or additional features, is risky because the investor cannot be sure that the new machine or the new product will meet the needs of the potential clients. If it does, the

entrepreneur gains a temporary monopoly rent until others are in a position to copy his invention. Even if an innovation finds imitators very quickly, this doesn't create a systemic problem: it may deprive the original innovator more rapidly of parts of his entrepreneurial rent, but for the economy as a whole the quick diffusion of an innovation is always positive as it increases overall welfare and income. The more efficient the market is regarding the diffusion of knowledge, the higher is the increase in productivity and the permanent rise in the standard of living - at least if institutions allow for an equitable distribution of the income gains and the demand that is needed to market smoothly the rising supply of products. However, the accrual of rents through "innovation" in a financial market is of a fundamentally different character. Financial markets are about the effective use of existing information margins concerning existing assets and not about technological advances into hitherto unknown territory. The temporary monopoly over certain information or the better guess of a certain outcome in the market of a certain asset class allows gaining a monopoly rent based on simple arbitrage. The more agents sense the arbitrage possibility and the quicker they are to make their disposals, the quicker the potential gain disappears. In this case, too society is better off, but in a one off, static sense. Financial efficiency may have maximized the gains of the existing combination of factors of production and of its resources, but it has not reached into the future through an innovation that shifts the productivity curve upwards and that produces a new stream of income. The fatal flaw in financial innovation that leads to crises and collapse of the whole system is demonstrated whenever herds of agents on the financial markets "discover" that rather stable price trends in different markets (which are originally driven by events and developments in the real sector) allow for "dynamic arbitrage", which entails investing in the probability of a continuation of the existing trend. As many agents disposing of large amounts of (frequently borrowed) money bet on the same "plausible" outcome (such as steadily rising prices of real estate, oil, stocks or currencies) they acquire the market power to move these prices far beyond sustainable levels. In other words, as seemingly irrefutable evidence, such as "rising Chinese and Indian demand for primary commodities", is factored into the decisions of the market participants and confirmed by analysts presumed to be experts, the media and politicians, betting on ever rising prices seems to be rather riskless. Contrary to the mainstream view in the theoretical literature in economics, speculation of this kind is not stabilizing, but rather destabilizes prices on the targeted markets. As

the equilibrium price or the “true” price simply cannot be known in an environment characterized by objective uncertainty, that main condition for stabilizing speculation is not realized. Hence, the majority of the market participants just extrapolate the actual price trend as long as “convincing” information that justifies the hike allows for a certain degree of self-delusion. The bandwagon created by uniform, but wrong, expectations about price trends inevitably hit the wall of reality because funds have not been invested in the productive base of the real economy where they could have generated higher real income. Rather, it has only created the short-term illusion of continuously high returns and a “money-for-nothing mentality”. Sooner or later consumers, producers or Governments and central banks will no longer be able to perform at the level of exaggerated expectations because hiking oil and food prices cut deeply into the budgets of consumers, appreciating currencies send current account balances into unsustainable deficit, or stock prices lose touch with any reasonable profit expectation. Whatever the specific reasons or shocks that trigger the turnaround, at a certain point of time market participants begin to understand that “if something cannot go on forever, it will stop”, as it was once put by United States presidential advisor Herbert Stein. At this point, the harsh reality of a slowly growing real economy catches up with the insistent enthusiasm of financial markets such that an adjustment of expectations becomes inevitable. Hence, the short-term development of the economy is largely hostage to the amount of outstanding debt. The more households, businesses, banks, and other economic agents are directly involved in speculative activities with borrowed funds, the greater the pain of deleveraging, i.e. the process of adjusting the level of borrowing to diminished revenues. A “debt deflation” (Fisher, 1933) sets in that fuels further painful adjustment because debtors try to improve their financial situation by selling assets and cutting expenditure, thereby driving asset prices further down, cutting deep into profits of companies and forcing new debt deflation elsewhere. The result of debt deflation if not stopped early on will be deflation of prices of goods and services as it constrains the ability to consume and to invest for the economy as a whole. Thus, in a debt deflation, the attempts of some to service their debts makes it more difficult for others to service their debts.1 Only Governments can step in and stabilize the system by “government debt inflation”. “Investment banking”, which became synonymous with “financial modernization”, is only a new term for an old phenomenon. The contribution of investment banks to real economic growth was mostly of the zero sum game type and

not productive at all for society at large. Much of "investment banking" was unrelated to investment in real productive capacity; rather, it masked the true, speculative character of the activity and presented what appeared to be an innovation in finance. In fact, there was nothing new in the build-up or the unwinding of markets for the financial instruments that investment banks created. What was new, however, was the dimension through which private households, companies and banks have collectively engaged in what amounts to gambling. This can only be explained by the effects of massive deregulation, driven by the conviction that the freedom of capital flows and the efficient allocation of "savings" is the most important ingredient of successful economies.

What made it worse: global imbalances and the absent international monetary system

Analysis of the economic crisis which first erupted in the developed economies has to begin by recalling the end of the global system of "Bretton Woods", which had rendered possible two decades of rather consistent global prosperity and monetary stability. Since then it has become possible to identify an "Anglo-Saxon" part of the global economy on the one hand, where economic policy since the beginning of the 1980s was comparatively successful in stimulating growth and job creations, and a Euro-Japanese component, where growth remained sluggish and economic policy wavered with no clear or consistent view on how to use the greater monetary autonomy that the end of the global monetary system had made possible. That the crisis originated in the Anglo-Saxon part of the developed countries was the logical outcome of the full swing towards unrestricted capital flows and unlimited freedom to exploit any opportunity to realize short-term profits. The financial crisis has demonstrated the damaging impact of this "short-termism" on long-term growth. But at the same time it has been the major driving force of the world economy in the last three decades. Without the high level of consumption in the United States, today most of the developed world and many emerging-market economies would have much lower standards of living, and unemployment would be much higher. Indeed, the consumption boom in the United States since the beginning of the 1990s was not well funded from real domestic sources. To a significant degree it was fuelled by the speculative bubbles that inflated housing and stock markets. The "wealth effect" of higher prices for housing or stocks led households in the United States and in the

United Kingdom to borrow and consume far beyond the real incomes that they could realistically expect, given the productivity growth of the real economy and the dismal trends in personal income distribution. With overall household saving rates to close to zero consumer demand in both countries expanded rapidly but at the same time the growth process became increasingly fragile because it meant that many households could only sustain their level of consumption by further new borrowing. With open markets and increasing international competition in the markets for manufactures the spending spree eventually boosted borrowing on international markets and led to large current account deficits.

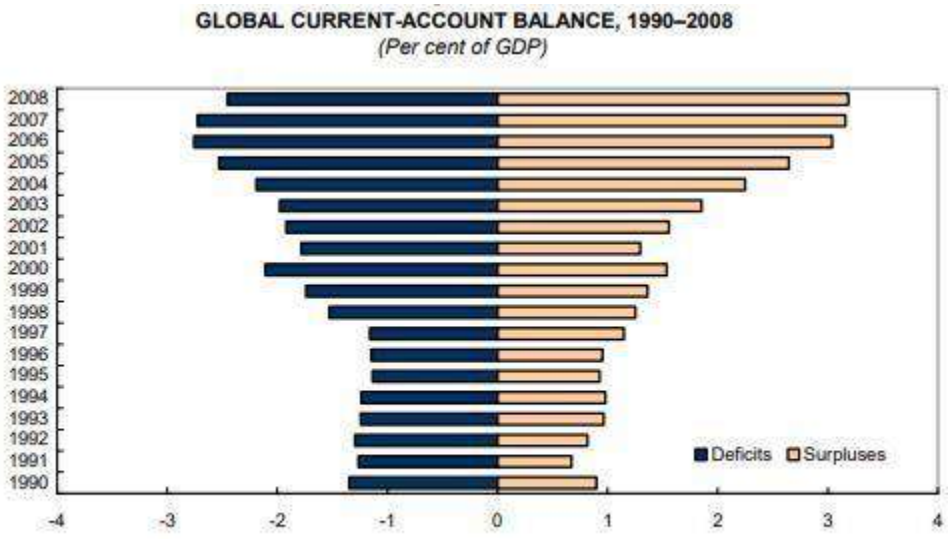
Graph 10

Source: OECD, *Economic Outlook* database.
Note: Data refer to net savings with the exception of United Kingdom where data refer to gross savings.

Juxtaposed against the current account deficits and overspending in the Anglo-Saxon economies was thrift elsewhere. Parts of continental Europe, in particular Germany, and Japan engaged in belt-tightening exercises that resulted in slow or no wage growth and sluggish consumption. But, since this policy stance also implied increased cost competitiveness, it yielded excessive export growth and ballooning surpluses in current accounts, thereby piling up huge net asset positions vis-à-vis the overspending nations. In both cases international competitiveness was additionally tuned by temporary exchange rate depreciations fuelled by speculative capital flows triggered by interest rate differentials. These global imbalances served to spread quickly the financial crisis that originated in the United States to many other countries, because current-account imbalances are mirrored by capital account imbalances: the country with a current-account surplus has to credit the difference between its export revenue and its import expenditure to deficit countries. Financial losses in the deficit countries

or the inability to repay borrowed funds then directly feed back to the surplus countries and imperil their financial system.

Graph 11



Source: UCTAD secretariat calculations, based on data from Thomson DataStream.
Note: Data refer to 122 countries.

Literature Review;

The Global Financial Crisis Project Synopsis By Kristin Forbes, Jeffrey Frankel and Charles Engel

Financial Integration, Capital Flows and Global Imbalances: Aggravating or Ameliorating Crises? Financial globalization, international capital flows, and global imbalances increased dramatically before the crisis. These trends can provide substantial benefits—such as facilitating access to capital for profitable investments, allowing greater diversification of risk, and improving market discipline. These trends can also increase risks, however, as countries become more vulnerable to changes in investor sentiment and events in other parts of the world. Several papers in this project reevaluated the implications of increased financial globalization and cross-border capital flows in light of the crisis, evaluating new aspects of cross-border capital flows and how global imbalances and financial integration performed during and after the crisis. One aspect of global imbalances which received substantial attention—even before the crisis—

was the "global saving glut" (GSG) hypothesis. This hypothesis argues that large capital flows from emerging market economies to the United States led to significant declines in long-term interest rates in the United States and other industrial economies. With the benefit of hindsight, it is now clear that these lower interest rates, combined with innovations and deficiencies of the U.S. credit market, contributed to the U.S. housing bubble and to the buildup in financial vulnerabilities that led to the financial crisis. Europeans generally argued that they were not a key player in the saving glut as Europe as a whole had fairly small net capital flows. Bertaut, DeMarco, Kamin, and Tryon, however, present a more complete picture of how capital flows contributed to the crisis.

They document sizable flows from European investors into U.S. private-label asset-backed securities (ABS), including mortgage-backed securities and other structured investment products. By adding to domestic demand for private-label ABS, substantial foreign acquisitions of these securities contributed to the decline in their spreads over Treasury yields. Through a combination of estimation and model simulation, the authors verify that both GSG inflows into Treasuries and Agencies and European acquisitions of ABS played a significant role in contributing to downward pressures on U.S. interest rates. Forbes and Warnock also examine the factors driving international capital flows, but attempt to understand not only periods of large capital inflows (as occurred under the GSG hypothesis), but also why these capital flows can suddenly reverse. They also take a longer-term perspective by analyzing what they call the international “waves” in capital flows since 1980. The authors develop a new methodology for identifying episodes of extreme capital flow movements using quarterly data on gross inflows and gross outflows so that they can differentiate activity by foreigners and domestics. They use this approach to document episodes of “surge”, “stop”, “flight”, and “retrenchment” and show that disaggregating capital flows into movements driven by foreigners and domestic yields a fundamentally different understanding of what causes extreme capital flow movements than the previous literature that used measures of net flows. They find that global factors, especially global risk, are the most important determinants of all types of extreme capital flow movements. Contagion, especially through trade and the bilateral exposure of banking systems, is important in determining episodes when foreigners stop investing abroad and domestics retrench and bring money home. Domestic macroeconomic characteristics are generally less important, although

changes in domestic economic growth have an influence on flows from foreigners. They find little role for capital controls in reducing capital flow waves. The insights from analyzing the behavior of domestic investors as well as foreigners highlight the importance of global factors in causing crises and capital flow volatility. If global factors are the most important determinants of capital flows, what happened to capital flows in various countries during the severe global shock from the crisis? Lane and Milesi Ferretti answer this question by providing an in-depth analysis of how global imbalances evolved directly before, during and after the crisis. The show that the period preceding the global financial crisis was characterized by a substantial widening of current account imbalances across the world. Since the onset of the crisis, however, these imbalances contracted to a significant extent. Countries whose pre-crisis current account balances were in excess of what could be explained by standard economic fundamentals experienced the largest contractions in their external balance. When the authors attempt to explain how these global imbalances adjusted, they find that external adjustment in deficit countries was achieved primarily through demand compression,
rather than expenditure switching. They also show that the main channel of financial account adjustment was through changes in other investment flows, and that official external assistance and ECB liquidity cushioned the exit of private capital flows for some countries. The authors speculate on the future path of global imbalances—describing different scenarios under which the reduction in imbalances that occurred during the crisis might only be temporary and further adjustment may be needed. Gourinchas, Rey, and Truempler consider how these changes in international capital flows, when combined with changes in asset valuations, transferred wealth across countries during the crisis. They construct valuation changes on bilateral external positions in equity, direct
investment, and portfolio debt at the height of the crisis and show that these valuation changes were sizable, even when compared to the massive domestic wealth losses brought about by the crisis. Then the authors map which countries benefited and which countries lost on their
international exposure from the massive movements in relative asset prices. They find that countries' external portfolios played an important role in transferring gains and losses during the crisis. Countries long equity or direct investment faced losses on their net positions, as risky

assets took some of the sharpest valuation falls in the crisis. The United States saw a substantial deterioration in its international investment position with a valuation loss amounting to roughly $2,200 billion. Other countries with notable valuation losses included Switzerland, the Euro area, and to a lesser extent, China. These countries were "global insurers" in the sense that the deteriorations in their net international asset positions provided wealth transfers to other countries. The authors are also able to link the gains and losses on debt portfolios across countries to their exposure to ABCP conduits and to dollar shortages. This work suggests that financial integration provided one of its theoretical benefits of transferring wealth across countries during the recent crisis—although in some unexpected directions.

Global Contagion: What was the Role of Banks, Investors and Trade? Although international exposure may have provided some insurance through positive wealth transfers for some countries during the crisis, international exposure also played a more damaging role by causing the crisis to spread quickly from the U.S. housing market to the broader U.S. economy and then around the globe. The world swiftly transitioned from the "global savings glut" state described at the beginning of this synopsis, to a sudden contraction in global liquidity. The
next set of papers evaluates the various channels by which the crisis was magnified and contagion occurred. The papers focus on the key role of major financial players, such as banks and investors, and attempts to understand better what drove their behavior during the crisis and how they transmitted the crisis internationally. Papers also consider whether providing liquidity could have stemmed the spread of the crisis, as well as if "real" contagion through channels such as trade and demand played a role in addition to the more apparent financial channels of contagion.
Shocks tend to be magnified and spread more rapidly in the presence of leverage. KalemliOzcan, Sorensen, and Yesiltas begin this series of papers on contagion by documenting new stylized facts on bank and firm leverage before the crisis using micro-level data. The authors find that although there was very little buildup in leverage for the average non-financial firm and commercial bank before the crisis, there was a significant increase in the leverage ratios of large commercial banks in the United States and investment banks worldwide during the early 2000s. They also show that off balance-sheet items constitute a large fraction of assets, especially for

large commercial banks in the United States, and that the leverage ratio is pro-cyclical for investment and commercial banks in the United States. These results show that excessive risk taking before the crisis was not easily detectable outside of investment banks, because much of
the risk involved the quality rather than the amount of assets. They also find that banks in emerging markets with tighter bank regulation and stronger investor protection experienced significantly less de - leveraging during the crisis—a result which has important implications for
future bank regulatory policy. Even though commercial banks may not have appeared to have problematic levels of leverage before the crisis, once the crisis began, globally active banks played an important role in
spreading shocks internationally. One channel for this linkage is through how these banks manage liquidity across their entire banking organization. Cetorelli and Goldberg document that funds regularly flow between parent banks and their affiliates in diverse foreign markets. The authors use the Global Financial Crisis as an opportunity to identify balance sheet shocks to parent banks in the United States. Then they present an econometric evaluation of the features of parent banks and overseas affiliates that influence the allocation of organizational liquidity. For example, they test for the role of a bank's status as an important location in sourcing funding or as a destination for foreign investment activity. They show that distance from the parent organization plays a significant role in this liquidity allocation, where distance is bank-affiliate specific and depends on the ex ante relative importance of such locations as local funding pools and in overall foreign investment strategies. The results show that these flows within banks create an important source of international shock transmission, a form of global interdependence that had previously not been explored in detail. Banks can not only transmit shocks internationally through their management of liquidity across foreign affiliates, but also through their international lending decisions and interactions through
global banking networks. Hale argues that global banking networks can be important in overcoming asymmetric information and supporting lending to firms for productive investments. To better understand these links, the author uses network analysis to describe bank relationships in the global banking network. She constructs a novel dataset that builds a bank-level global network from loan-level data on syndicated

loans to financial institutions between 1980 and 2009. The network consists of 7,938 banking institutions from 141 countries. She shows that the network
became more interconnected and more asymmetric, and therefore potentially more fragile, prior to 2008. Recessions and banking crises tend to have negative effects on the formation of new connections, and these effects are not the same for all countries or all banks. The Global Financial
Crisis of 2008-09 followed this pattern and had a large negative impact on the formation of new relationships in the global banking network. The Crisis of 2008-9 made banks very cautious in their lending, meaning that almost no new connections were made, particularly in 2009, which
could have longer term effects as economies recover. It will take time to rebuild these networks. This important role of banks in spreading the crisis through reduced lending had not only the effect of reducing global liquidity, but given the central role of US banks in providing dollars, also
created a global shortage of dollar liquidity. In response, the Federal Reserve partnered with other central banks to inject dollars. Empirical studies of the success of these efforts have yielded mixed results, in part because it is difficult to correct for the endogeneity between these injections and events in funding markets. In their paper, Rose and Spiegel use a new identification technique to examine the cross-sectional impact of these interventions. The authors explain that the impact of the dollar injections should be greater for countries that have greater exposure to the United States through trade and financial channels, less transparent holdings of dollar assets, and greater illiquidity difficulties. They test these predictions on observed
cross-sectional changes in CDS spreads for different countries, using a new proxy to measure the innovations in perceived CDS changes constructed using a novel index of sovereign risk based on Google-search data. They find robust evidence that auctions of dollar assets by foreign central banks disproportionately benefited countries that were more exposed to the United States through either trade linkages or asset exposure. They obtain weaker results for differences in asset transparency or illiquidity, but several of the important announcements concerning the international swap programs disproportionately benefited countries exhibiting greater asset opaqueness. These results suggest that the dollar liquidity provisions could play some role in reducing contagion caused by banks reducing liquidity across borders. Banks, however, were not the only financial players through which the crisis spread

internationally. As banks sharply restricted liquidity and lending across borders, investors simultaneously reduced their capital flows abroad. Fratzscher analyzes a novel data set of high frequency mutual fund investment in equity and debt in 50 economies. He uses this data in the context of a factor model to understand better what drove the behavior of investors during and immediately after the crisis. The author finds that common shocks – key crisis events as well as changes to global liquidity and risk – exerted a large effect on capital flows, both during the crisis and in the recovery. These effects were highly heterogeneous across countries, however, with a large part of this heterogeneity explained by differences in the quality of domestic institutions, country risk, and the strength of macroeconomic fundamentals. Comparing and quantifying these effects shows that while common factors ("push" factors) were the main drivers of investor flows
during the crisis, country-specific determinants ("pull" factors) have been more dominant during the recovery in 2009 and 2010, especially for emerging markets. Raddatz and Schmukler use the same novel micro-level data on mutual fund investors, but focus on the different roles of fund managers versus the underlying fund investors in transmitting shocks across countries. The authors find that the volatility of mutual fund investments is driven by both the underlying investors and fund managers, through both injections/ redemptions into each fund and managerial changes in country weights and cash. Both investors and managers
respond to country returns and crises and adjust their investments substantially in response to events such as the Global Financial Crisis. The behavior of both types of actors tends to be pro cyclical, pulling out of countries during bad times and increasing exposures when conditions
improve. Managers actively change country weights over time, although there is significant short run pass-through from returns to these weights. The results suggest that mutual fund investors can transmit shocks across countries in their portfolio and thereby act as a channel for financial
contagion. Although this series of papers finds a prominent role for investors and banks in causing contagion through financial channels during the Global Financial Crisis, it is also possible that contagion
occurred through “real” linkages. For example, many Asian economies that had little exposure to the U.S. sub prime and housing markets and that had weaker links with

the United States through direct bank and investment links, still suffered severe output contractions in late 2008 and early
2009. Claessens, Tong, and Wei test for the roles of contagion through real as well as some financial channels by using accounting data for 7,722 non-financial firms from 42 countries to examine how the 2007-9 crisis affected firm performance. They isolate and compare the effects from changes in external financing conditions, domestic demand, and international trade on firms' profits, sales and investment using both sectoral benchmarks and firm-specific sensitivities estimated prior to the crisis. The authors find that the crisis had a bigger negative impact on firms with greater sensitivity to demand and trade, particularly in countries more open to trade. Interestingly, financial openness appears to have made limited difference. These results provide evidence that "real" channels of contagion through effects on trade flows and aggregate demand were important in spreading the Global Financial Crisis.

Reducing Country Vulnerability: Capital Controls, Reserves, the IMF, or Something New?

The series of papers documenting how a crisis that begins in one country can rapidly spread around the world through various channels suggests that a top priority for policymakers should be to reduce their vulnerability to external shocks. Over the past few decades, international institutions have relied more and more heavily on large emergency lending packages to stabilize economies during crises. As the scale and scope of these crises grow, however, and the corresponding size of the necessary rescue packages increases, this approach is becoming increasing costly. Moreover, as larger developed economies may be the next crisis countries, it is unclear that emergency lending on the scale that would be necessary is even available. The recent crisis provides a case study to test which strategies were more effective at supporting countries as the global economy deteriorated and the crisis spread. Papers examined whether the traditional strategy of accumulating reserves, or the increasingly popular approaches of instituting new capital controls and stronger prudential regulations, reduced country vulnerability during the recent crisis. A final paper suggests that current strategies are reaching their limits and it is time for a new structure for country debt to stabilize economies in the future. 9 Many emerging market countries accumulated massive international reserve portfolios prior to the global financial

crisis, partly to provide precautionary self-insurance in the case of a sudden stop in capital inflows and/or contagion. Dominguez, Hashimoto, and Ito analyze if these pre crisis international reserve accumulations, as well as exchange rate and reserve decumulation decisions made during the crisis, can explain cross-country differences in post-crisis economic performance. Many emerging markets saw minimal changes in reserve ratios during the crisis— which some interpreted as showing that the reserves provided little insurance as countries were unable or unwilling to use them after a shock. The authors show, however, the importance of distinguishing between passive valuation changes and active management of the assets in international reserve portfolios in order to fully understand the dynamics of reserves during the crisis. The authors find evidence that reserves served as an important counter-cyclical policy tool for a number of emerging market countries during the crisis. Among countries that depleted their reserves, those that were able to replenish their reserve accumulations by the end of 2009 were also the countries that experienced the largest output recoveries in 2010. Chamon, Ghosh, Ostry, and Qureshi analyze two other approaches to reducing country vulnerability that have become even more popular after the crisis—adapting prudential policies and/or capital controls in order to reduce financial fragilities resulting from capital inflows. They construct new indices for prudential policies and for financial-sector-specific capital controls for 50 emerging market economies over the period 1995-2008. Their results indicate that both prudential regulations related to currency denomination and capital controls tend to reduce the proportion of foreign currency-denominated loans by the domestic banking sector and to shift the country's external liability structure away from portfolio debt. Other prudential policies, however, appear to be more effective in restraining overall banking system credit booms. Experience from the Global Financial Crisis suggests that countries that had such prudential policies and capital controls in place prior to the crisis fared better in terms of the output decline during the crisis. Even if the careful use of prudential regulations, capital controls, and reserve accumulation helped support some economies during the recent Global Financial Crisis, these steps are unlikely to be sufficient to protect countries in the future in this era of financial globalization. Additional 10 policies should be considered. After surveying the modern history of financial crises, Barkbu, Mody, and Eichengreen present a novel proposal for reducing vulnerabilities in the future. They show that emergency lending packages have grown over time, while debt restructuring has become less frequent.

Private lenders have an obvious interest in holding out for full payment, while national officials have an interest in pushing into the future a difficult and politically embarrassing restructuring. Recognizing that restructuring is difficult during a crisis, private investors have an incentive to lend at rates that are, in retrospect, too low. This implies that the next crisis has a larger capital outflow, increasing the size of the official financing needed to limit the damage. This cycle leads the authors to ask what can be done to re balance the management of debt problems toward a better mix of emergency lending and private sector burden sharing. Building on the literature on collective action clauses, they explore the idea of "sovereign cocos": contingent debt securities that automatically reduce payment obligations in the event of debt sustainability problems. Automating the process of debt restructuring has key advantages: it preserves the integrity of the contract (which avoids the uncertainties involved in triggering CDS); it is predictable; and it can be priced. Although this idea is preliminary and a number of difficult technical issues need to be addressed, it is a novel and promising proposal to address vulnerabilities that contributed to the recent crisis.

DATA ANALYSIS, INTERPRETATION

AND

MAJOR FINDINGS

Causes of Economic crisis

i. Sub-prime mortgage

G-20 summit (2008) viewed that the current global economic crisis has originated due to sub-prime mortgage in USA in 2007. With easy availability of credit at low interest rates, real estate prices in US had been rising rapidly since the late 1990s and investment in housing had assured financial return. Kunt et al., (2002) reported that US home-ownership rates rose over the period 1997-2005 for all regions, all age groups, all racial groups, and all income groups. Banks went out of their way to lend to sub-prime borrowers who had no collateral assets. Low income individuals who took out risky sub-prime mortgages were often unaware of the known risks inherent in such mortgages. While on the one hand, they were ever keen to become house-owners, on the other, they were offered easy loans without having any regard to the fact that they were not in a position to refinance their mortgages in the event of the crisis. All this was fine as long as housing prices were rising. But the housing bubble burst in 2007. Home prices fell between 20 per cent and 35 per cent from their peak and in some areas more than 40 per cent; mortgage rates also rose. Sub-prime borrowers started defaulting in large numbers. The banks had to report huge losses. Acharya (2009), Green, King & Dawkins (2010) also explain the main reason of global economic crisis is excessive sub-prime mortgages.

ii. Securitization and Repackaging of Loans

The mortgage market crisis that originated in the US was a complex matter involving a whole range of instruments of the financial market that transcended the boundaries of sub-prime mortgage. An interesting aspect of the crisis emanated from the fact that the banks/ lenders or the mortgage originators that sold sub-prime housing loans did not hold onto them. They sold them to other banks and investors through a process called securitization. Securitization, as a financial process, has gained wide currency in the US in the last couple of decades. Indeed, as recently as 1980 only 10 per cent of US mortgages were securitized compared to 56 per cent in 2006. In the context of the boom in the housing sector, the lenders enticed the naive, with poor credit histories, to borrow in the swelling sub-prime mortgage market. They originated and sold poorly underwritten loans without demanding appropriate documentation or performing adequate due diligence and passed the risks along to investors and securitizes without accepting responsibility for subsequent defaults. These sub-prime mortgages were

securitized and re-packaged, sold and resold to investors around the world, as products that were rated as profitable investments. They had a strong incentive to lend to risky borrowers as investors, seeking high returns and were eager to purchase securities backed by sub-prime mortgages. The booming housing sector brought to the fore a system of repackaging of loans. It thrived on the back of flourishing mortgage credit market. The system was such that big investment banks such as Merrill Lynch, Morgan Stanley, Goldman Sachs, Lehman Brothers or Bears Stearns would encourage the mortgage banks countrywide to make home loans, often providing the capital and then the Huge Investment Banks (HIBs), would purchase these loans and package them into large securities called the Residential Mortgage Backed Securities (RMBS).

iii. Excessive Leverage

Global economic outlook (2008) reported that the final problem came from excessive leverage. Investors bought mortgage backed securities by borrowing. Some Wall Street Banks had borrowed 40 times more than they were worth. In 1975, the Securities Exchange Commission (SEC) established a net capital rule that required the investment banks who traded securities for customers as well as their own account, to limit their leverage to 12 times. However, in 2004 the Securities and Exchange Commission (SEC) allowed the five largest investment banks – Merrill Lynch, Bear Stearns, Lehman Brothers, Goldman Sachs and Morgan Stanley – to more than double the leverage they were allowed to keep on their balance sheets, i.e. to lower their capital adequacy requirements. The institutions that have reported huge losses are those which are highly leveraged. Leveraged investors have had to return the money they borrowed to buy everything from shares to complex derivatives. That sends financial prices even lower. All this led to massive bailout packages in USA, as the government stepped in to buy and lend in a financial market. The role of leverage and credit is, therefore, central to growth. Yet, excessive leverage is fraught with dangerous consequences.

iv. Mismatch between Financial Innovation and Regulation

It is not surprising that governments everywhere seek to regulate financial institutions to avoid crisis and to make sure a country's financial system efficiently promotes economic growth and opportunity. Striking a balance between freedom and restraint is imperative. Conway (2009) reported that the financial innovation inevitably

exacerbates risks, while a tightly regulated financial system hampers growth. When regulation is either too aggressive or too lax, it damages the very institutions it is meant to protect.

v. Fair value accounting rules

Fair value accounting rules require banks and others to value their assets at current market prices. The broad aim of fair value accounting is to enable investors, financial system participants, and regulators to better understand the risk profile of securities in order to better assess their position. In order to achieve this, financial statements must, in the case of instruments for which it is economically relevant, be sensitive to price signals from markets, which reflect transaction values. Investors and regulators hold that the fair value accounting standard should not be weakened because it is a key component of accurate and fully transparent financial statements, which in turn are the bedrock of financial activity. But the asset holders maintain that accounting standard should be reformed to fully reflect the reality of financial activities. They have argued that in times of illiquid and falling markets, it has been difficult or impossible to value assets accurately. Singh (2009) reported that the fair-value accounting has resulted in assets being valued at distressed sale prices, rather than at their fundamental value, creating a downward spiral. The requirements of fair value accounting ensured that what began initially as a sub-prime crisis morphed into a general credit deterioration touching prime mortgages and causing their credit downgrades and system -wide mark downs.

v. Failure of Global Corporate Governance

The financial system of USA has changed dramatically since the 1930s. Many of America's big banks moved out of the "lending" business and into the "moving business". They focused on buying assets, repackaging them, and selling them, while establishing a record of incompetence in assessing risk and screening for creditworthiness. Hundreds of billions have been spent to preserve these dysfunctional institutions. Singh (2008) told that nothing has been done even to address their perverse incentive structures, which encourage short-sighted behaviour and excessive risk taking. Prudential oversight was lax, allowing poor lending standards, the proliferation of non-transparent securitization structures, poor risk management throughout the securitization chain, and the build-up of excessive

leverage by financial institutions. The weaknesses in prudential oversight were partly due to particular characteristics of the US financial system, such as the existence of different regulatory regimes for investment banks, commercial banks and government-sponsored enterprises (Fannie Mae and Freddie Mac), as well as the complex and fragmented supervisory architecture, comprising several federal and state agencies with competing and overlapping mandates.

vi. Typical characteristics of US financial system

Failure of Global Corporate Governance One of the reasons for current crisis in the advanced industrial countries related to the failures in corporate governance that led to non-transparent incentive schemes that encouraged bad accounting practices. Rajadhyaksha (2008) studied that there is inadequate representation and in some cases no representation of emerging markets and less developed countries in the governance of the international economic institutions and standard setting bodies, like the Basle Committee on Banking Regulation. The IMF has observed and stated in The Hindu, (March 11, 2009) that market discipline still works and that the focus of new regulations should not be on eliminating risk but on improving market discipline and addressing the tendency of market participants to underestimate the systemic effects of their collective actions. On the contrary, it has often put pressure on the developing countries to pursue such macro-economic policies that are not only disadvantageous to the developing countries, but also contribute to greater global financial instability.

vii. Complex Interplay of multiple factors

It may be said with a measure of certainty that the global economic crisis is not alone due to sub-prime mortgage. There are a host of factors that led to a crisis of such an enormous magnitude. The declaration made by the G-20 member states at a special summit on the global economic crisis held on 15th November 2008 in Washington, D.C. identified the root causes of the current crisis and put these in a perspective. During a period of strong global growth, growing capital flows, and prolonged stability earlier this decade, market participants sought higher yields without an adequate appreciation of the risks and failed to exercise proper due diligence. At the same time, weak underwriting standards, unsound risk management practices,

increasingly complex and opaque financial products, and consequent excessive leverage combined to create vulnerabilities in the system. Policy-makers, regulators and supervisors, in some advanced countries, did not adequately appreciate and address the risks building up in financial markets, keep pace with financial innovation, or take into account the systemic ramifications of domestic regulatory actions. Major underlying factors to the current situation were, among others, inconsistent and insufficiently coordinated macroeconomic policies, inadequate structural reforms, which led to unsustainable global macroeconomic outcomes. Pan (2009) reported these developments, together, contributed to excesses and ultimately resulted in severe market disruption.

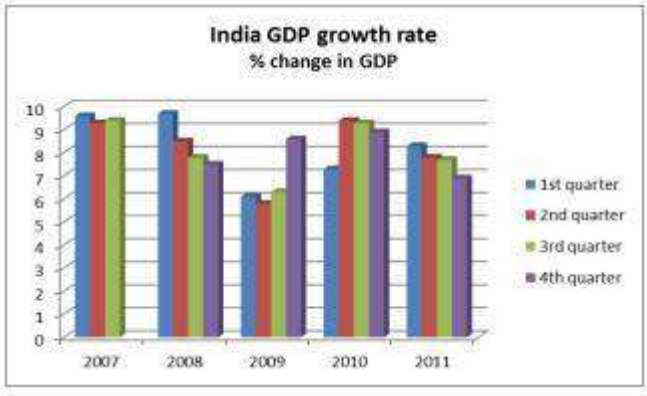
Impact on Indian Economy

Until the emergence of global crisis, the Indian economy was going through a phase of high growth driven by domestic demand – growing domestic investment financed mostly by domestic savings and sustained consumption demand. In fact, consumption and saving were well-balanced. Services sector, led by domestic demand, contributed to the stability in growth. Concomitantly, inflation was also generally low and stable. This overall improvement in macroeconomic performance in India was attributed to calibrated financial sector reforms that resulted in an efficient system of financial intermediation, albeit bank-based; the rule based fiscal policy that reduced the drag on private savings; and forward looking monetary policy that balanced the short term trade-off between growth and inflation on a continuous basis. Additionally, the phased liberalisation of the economy to trade and capital flows along with a broadly market-driven exchange rate regime enhanced the role of external demand in supporting the growth process, simultaneously exposing the economy to the forces of globalisation. India, though initially somewhat insulated to the global developments, eventually was impacted significantly by the global shocks through all the channels – trade, finance and expectations channels. This raised the issue that whether India is more globalised than what is perceived in terms of conventional trade openness indicators. At the same time, India was also among the first to exhibit strong rebound from the global downturn as compared to many advanced economies.

Impact on Indian GDP growth rate

Below the Indian's GDP growth rate chart is given to show the impact of economic crisis on GDP growth rate for the country. Economic growth is the increase in value of the goods and services produced by an economy. It is conventionally measured as the percent rate of increase in real gross domestic product or GDP. Growth is usually calculated in real terms, i.e. inflation adjusted terms, in order to net out the effect of inflation on the price of the goods and services produced. Indian GDP growth rate for last five years and for each year quarter growth rate of GDP are compared (Fig). It shows that global economic crisis of 2007 had impact on Indian GDP growth rate in the financial year of 2009, where GDP growth rate were lowest in first three quarter of the financial year.

Graph 12



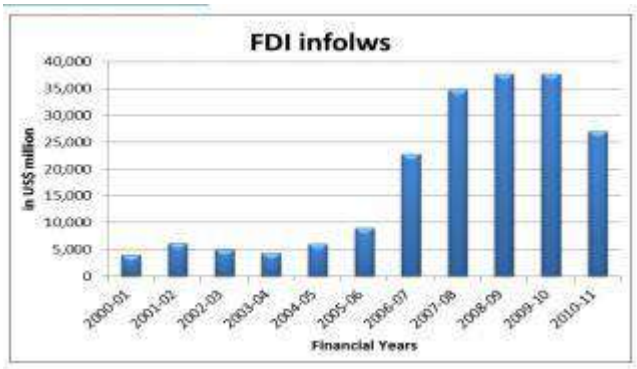
Impact on Inflation rate

By January 2010, the domestic growth signals were pointing towards a consolidation of the recovery process. However, sustained increase in food prices was beginning to spill over to manufactured products. Inflation in primary commodities moved up 8.2 in August 2009 to 22.2 per cent by March 2010. An important concern from the point of view of inflation management is the downward rigidity in the primary food articles prices even after a good monsoon. Moreover, the consumption basket is getting diversified more in favour of non-cereals items such as milk, meat, poultry, fish, vegetables and fruits, which are important from the nutritional angle. The

decomposition of food inflation indicates that during the recent period the key drivers of food inflation are non cereals. All together Inflation rate is increasing at higher rate.

Impact on Indian FDI inflows

Foreign Direct Investment (FDI) inflow into the core sectors plays a significant role as a source of capital, management, and technology in transitional economies. It implies that FDI can have positive effects on the host economy's developmental efforts. As mentioned earlier, India has opened its economy and has allowed the entry of multinational corporations (MNCs) as a part of the reform process started in the beginning of 1990s. Like many other countries, India has offered greater incentives to encourage FDI inflows into its economy. The presence of FDI inflow in India was negligible till 1991, but there has been a steady build-up in the actual FDI inflows in the post-liberalisation period. The share of FDI in GDP was merely 0.03 per cent in 1991, which rose to about 3 per cent in 2009-10. Its annual growth during this period was phenomenal. The FDI inflow has been growing rapidly since then with a quantum jump after 2004-05. From US $3250 million in 2004-05, the FDI has leaped to over US $247329 million in 2008- 09. However, since February 2008, a reversal in the trend has been observed. A perusal of the monthly inflow of FDI between January 2008 and January 2010 suggests a clear decline over a period of 24 months. The share of agriculture in the total FDI in India is negligible. The recent data show that agriculture accounted for only about 1 .5 per cent of the total FDI inflows into India. In the agriculture sector, die entry of FDI was confined to plantation crops, food processing industries, agricultural services and agricultural machinery. FDI has been allowed in fertilizer manufacturing also, which have a direct bearing on agriculture but was not allowed in the cultivation of crops or rearing of livestock. However, its entry into the food processing sector can have ramifications on the agriculture sector (though it may be limited). Therefore, though the FDI inflow has slowed down over the past one year, its impact would not be visible on agriculture, as the dependence of agriculture on FDI is minimal (Fig).



Graph 13

Impact on Export and Import

Global crisis also affect the Indian export-import market. In 2008- 09, export-import both had been reduced due to crisis of 2007. In fact in 2009-10 export and import of India reached in negative. Demand for Indian product has reduced in international market as a result export gone under negative in 2009-10.

Impact on Indian Agriculture

India has opened its market since the beginning of the past decade (more precisely since July 1991) by lowering tariff and non tariff barriers, as well as liberalizing investment policies. Still Indian agriculture is far less vulnerable to the external economic shocks than agriculture in many developing countries. Agricultural trade still accounts for less than 10 per cent of agricultural gross domestic product (Ag. GDP). However, Indian agriculture cannot be completely insulated from the global and domestic economic recessions. The impact of economic crisis is transmitted through three distinct channels, viz., financial sector, exports and exchange rates, and the impact manifests itself in several direct and indirect ways. Some of the implications of the economic crisis are discernible in the short-run, while others may be visible only in the long run. It is difficult to gauge the impact of economic crisis on Indian agriculture in the short run. However, the trends in some broad parameters may indicate its implications and the possible options can be worked out to mitigate its adverse impact. Chandrasekhar (2009) identified the broad indicators for assessing the impact of economic recession on Indian agriculture could be the trends agricultural exports, Ag. GDP, agriculture export & Foreign Direct Investment (FDI) etc. The

trends in these indicators have been assessed and briefly discussed in the following sections.

Agricultural Exports

Two remarkable developments have taken place in India's agricultural exports during the post-liberalisation period. one, the agricultural exports have grown at a much faster rate since the initiation of liberal economic policies where agricultural exports in value terms have grown annually from 18.9 per cent during 1990s to 15.2 per cent during 2000s but after 2000 it reduced gradually (Table). It would be interesting to see whether mere has been any divergence from the long-term trend in the export of important agricultural commodities due to economic recession. For this, share of export of agricultural products (including livestock products) in total national export during 2007-08 and 2009-10 can be compared. However, the decline or slowdown in exports cannot be entirely attributed to the economic recession.

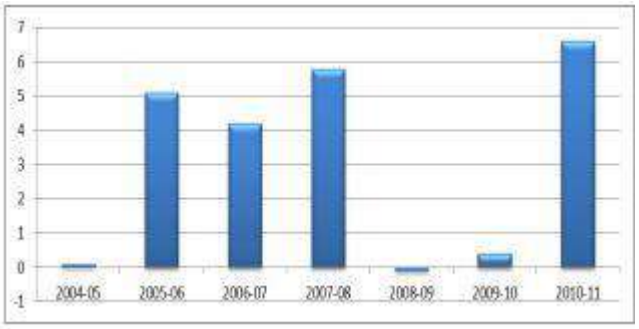
Year	Agriculture Exports	Total National Exports	% Agriculture Exports to Total National Exports
2000-01	28657.37	201356.45	14.23
2001-02	29728.61	209017.97	14.22
2002-03	34653.94	255137.28	13.58
2003-04	37266.52	293366.75	12.70
2004-05	41602.65	375339.53	11.08
2005-06	49216.96	456417.86	10.78
2006-07	62411.42	571779.28	10.92
2007-08	79039.72	655863.52	12.05
2008-09	85951.67	840755.06	10.22
2009-10	89522.59	845125.21	10.59

Table 3- Trend of Agricultural Export, 2000 to 2010

Agricultural GDP

The trend in agricultural GDP during the past two decades suggests that the sector has been growing slowly and steadily, but with occasional slumps. The reasons for slow growth during the 1990s and early 2000s are many, ranging from poor monsoons to depressed agricultural commodity prices in the world market. The current crisis is expected to have a modest effect on the GDP of agricultural and allied products. Recent trends indicate that the sector is not witnessing similar growth achieved during the previous year. Agricultural GDP is declined by -0.1 per cent in 2008-09 as compared to 5.8 per cent in 2007-08. In 2009-10 and 2010-11 GDP growth rate for agriculture sector was 0.4 percent and 6.6 percent respectively, Economic survey of India (2011). The trends in Ag.GDP seem to have weak links with the present recession (Fig 3).

GDP growth rate of agri-allied sectors



Graph 14

Agricultural growth has been accorded priority to improve the distributional aspects by which several schemes like National Food Security Mission, Rashtriya Krishi Vikas Yojana (RKVY), substantial increase in the flow of agricultural credit, waiving off agricultural loans, etc. have been launched to foster growth in this sector. These schemes are likely to taper off the adverse impact of the economic recession on agriculture to a large extent. However, the economic crisis may put downward pressure on farm production in the short-run. Even though the government provides a shield to the farmers by intervening in the agricultural markets to realize stabilized income, its intervention is limited to a few commodities in some states. Therefore, in spite of government's efforts, farm income is expected to have slightly adverse impact due to economic recession. It is important to note that rainfall and other weather parameters influence agricultural growth significantly.

Impacts on Fisheries

Economic Crisis in Fisheries

Roughly speaking, the Asian Economic Crisis gives negative impacts to fisheries and any fisheries-related business. In domestic fish markets, demand for fisheries products is on sharp decline. Wholesale and retail prices sharply fall down. Export of Indian fisheries products mainly for Asian markets is in a severe slump. Exporters, processing companies, and any type of fish dealers suffer from extreme market slump. Their financial positions get worse, which causes a sharp decline in fish prices in production sites. Moreover, fishers and fish farmers find it very hard to raise capital for investment and operation, by depending on fish traders. Since prices of productive materials rise, the rate of profit decreases. Before the Crisis, exporters were prevented

from further expansion of trading products with lower additional value. In a much contrast, domestic-oriented production remained in depression.

Impact on Fisheries Export

However, the decline or slowdown in exports cannot be entirely attributed to the economic recession. Quantity exported in the year of 2006-07 was 612 thousand tonnes and it has been reduced in the year 2007-08 to 541 thousand tonnes (Table 2), it shows the negative impact of economic crisis on fisheries export. However, after the outbreak of global Economic Crisis, demand for Indian fisheries has suddenly declined in foreign markets. It is reported that, in European Union, wholesale prices of Indian fishes imported sharply fall down. Collectors have to reduce their scale of transaction and reduce purchase prices of Indian fishes/ shrimp. Farm gate price is almost half of the highest at peak. This causes damage to small-scale fishers who are engaged in catching fry and young fish.

Table 4: Export of Marine Products

Year	Export of marine products	
	Qty ('000 tonnes)	Value (Rs in crore)
2006-07	612	8363
2007-08	541	7620
2008-09	602	8608
2009-10	664	9921

Source: Economic survey, 2011

CONCLUSIONS

Conclusion

- While the developed world, including the U.S, the Euro Zone and Japan, has plunged into recession, the Indian Economy is being affected by the spill-over effects of the global financial crisis, Chidambaram (2008) & Seshan (2008).

- Moreover, the crisis has spread (and is still spreading) across the world through varying transmission channels, at different speeds and intensities. Finally, the crisis has interacted with other
- crises, notably those of food and fuel prices, in complex ways.

- Great savings habit among people, strong fundamentals, strong conservative and regulatory regime have saved Indian economy from going out of gear.

- Although significant parts of the economy have slowed down and there is a wide variance of opinion about how long it will continue. It is expected that growth will be moderate in India.

- The most important lesson that we must learn from the crisis is that we must be
- self-reliant. Though World Trade Organization (WTO) propagates free trade, we must adopt protectionist measures in certain sectors of the economy so that recession in any part of the globe does not affect our country.

LIMITATIONS OF STUDY

1. lack of sources of primary data due to the presence of COVID-19 and a nation wide lockdown.

2. Lack of further primary information due to conservative mindset of people.

3.Cost Factor: It was not possible to conduct extensive research due to paucity of funds.

RECOMMENDATIONS

1. Plan for crises before they occur. Governments need both to invest in prevention (e.g. via adequate regulation of finance) and to stress-test their economic policy, state institutions, and social policies against possible future crises, as described above.

2. When a crisis hits, at a minimum keep spending (in the medium term). Governments in most countries entered the crisis in a better fiscal position than in previous crises, and have tried to avoid the kind of large-scale pro-cyclical cuts that have aggravated recessions in past crises. In so doing, many have gone into fiscal deficit. It remains to be seen whether governments can maintain their MDG spending and commitments until their economies pick up again.

3. Support local-level coping mechanisms. Research on both the food and financial crises has shown that most poor people turn to their family, friends, faith organizations, and other local institutions for help, long before the state. The state should recognize this in its approach to crises, for example by building the capacity of local civil society and religious organizations to respond to crises.

4. Monitor the impact and talk to people. The best responses have involved on-the-ground, real-time monitoring of the impact of the crisis, and genuine dialogue with affected communities about the best way to respond.

5. Learn lessons and replenish resilience. Each crisis is different, and provides different lessons for governments, civil society organizations, and aid donors alike. But each crisis also depletes the coping capacities, both physical and psychological, of poor people and communities. These buffer stocks need replenishing as soon as possible to reduce people's immediate vulnerabilities to the daily hazards of poverty; but after the crisis has passed, there is an urgent and particular need to top-up these sources of resilience and to reorganise so people retain or enhance their ability to deal with the next large shock before it arrives.

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