# GLOBAL FINANCIAL CRISIS AND INDIA: IMPACT & RESPONSE

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**Abstract**

Indian economy is now relatively an open economy. Gross capital & current account flows in the Balance of Payments have increased to over 100 percent of GDP in 2009-10 from nearly 22 percent in 1980s. With this higher degree of openness, Indian economy is bound to be affected by the developments in international markets and the global shocks- real as well as financial. Also the correlation between cyclical components of IIP of advanced countries and India has risen to 0.50 in 1993-2010 from 0.12 during 1970-1992. These shifts in the degree of synchronisation of Indian trade and business cycles with global cycles have increased the financial integration and thus it is important to study the impact of Global Financial Crisis. The present study is focussed upon the magnitude and causes of Global Financial Crisis and the response of India. The role of financial and real sector and monetary policy has been analyzed in analyzing the impact of global financial crisis on Indian economy. The paper is divided into three sections; first section measures the impact of global financial turmoil on Indian economy especially after 1990s. In second section, the role of Indian financial & real sectors is analyzed and in third section; the study analyzes the response of India to the Global Financial Crisis.

**Keywords:** Global financial integration, Decoupling theory, Globalization, Sub-prime crisis, Contagion

## Introduction

Global financial crisis is the variety of situations in which the financial assets and institutions suddenly lose a large part of their value. Global financial crisis have been associated with banking panics, global recessions, currency recessions, stock market crashes etc. In the era of globalization; financial crisis have been occurring with greater frequency and the impact of global financial conditions cannot be overlooked because of increased integration of domestic and global economies. Before the major crisis of 2008, there were crisis of Latin America (1980), Mexico, and Asia & Russia (1990s). The late 2000s financial crisis also known as Global Financial Crisis was considered to be the worst financial crisis

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since the Great Depression of 1930s. It resulted in the collapse of large financial institutions, bailout of banks by national governments and downturn in the stock market around the world. India experienced a classic external payments crisis in 1991 which included: high fiscal, current account deficits, rising debt servicing obligations, rising inflation and inadequate exchange rate adjustment. The oil shock of 1979 had pushed up the fiscal deficit. Increasing dependence on foreign oil imports, vulnerability to oil price fluctuations, declining remittances from abroad & strong domestic demand worsened the Indian current account position. The crisis have shown that while global integration bring enormous economic and financial benefits to the emerging economies, it also widens the channels through which the slowdown of advanced economies could spread to emerging economies.

Integration of financial markets in India has been facilitated by various measures in the form of free pricing, widening of participation base in markets, introduction of new instruments and improvements in payment and settlement infrastructure. Financial integration represents strictly the "extent to which the prices of, and returns to, assets are equalized between different national financial markets". The year of Indian reforms in 1992-93 based on Narsimham Committee improved linkages amongst various segments of market and domestic & international markets. Foreign portfolio investments (FPI) into Indian stock markets increased dramatically in the last decade. The year 1999-2000 witnessed an inflow of 2.15 US $ billion dollars, by the end of 2008 India attracted more than 32 US $ billion (Reserve Bank of India, 2009), so it is worth investigating whether those flows of investment affected the integration of India's financial markets with the equity markets of other countries. Secondly, the Indian stock market has not been immune, like many other countries, from the recent international financial crisis. For instance the recent subprime mortgage crisis which triggered a global financial crisis also affected heavily the Bombay Stock Exchange, which lost 11.6% of its value on the 'Black Friday' of the October 24, 2008.

**Review of Literature**

Causes of Global Financial Crisis have been analyzed many academicians. Crotty (2009) locates the deep cause, on the financial side, of the current crisis, in the New Financial Architecture (NFA) and the radical financial deregulation process associated with its institutions and practices. He argues that the current crisis is but the latest stage in a series of financial boom and bust cycles, stretching back to the late 1970s, in which financial deregulation and innovation alternated with government bailouts to allow renewed expansion after each crisis. Crotty provides an enlightening account of disaster gradually spreading and eventually hitting through a careful point-by-point refutation of the main hypothesis and claims of the proponents of the NFA. Morgan (2009) also focuses on the successive and cumulative failures of the pre-crisis financial architecture, but concentrates more specifically on the role of central banks, tracking down fundamental failures in central bank policy, both in theoretical design as well as practical implementation. They are joined by Perez (2009) and Tregenna (2009), with two accounts of different pre-crisis developments. Perez analyses two boom and bust episodes preceding the current crisis, the 1990s 'dotcom' internet mania and the liquidity boom of the early 2000s, arguing that these constitute two components of a single structural phenomenon, also to be found prior and during the 1929 crash and depression.

Financial integration of emerging economies like India & China with developed nations and other European countries cannot be ignored now and so it has become important to study the impact of global financial downturn on these countries. Kumar & Vashisht (2009) in their study have analyzed the global financial integration and transmission of global financial crisis to the Indian economy. The study shows that the global downturn affected India through distinct channels like; financial markets, trade flows and exchange rates. GDP reduced to almost 2 percent in fiscal year 2008-2009 due to deterioration in exports. Areas that require attention are removal of entry barriers on corporate for investing in education and vocational training, expanding physical infrastructure and delivery of urban utilities, law and order. Patnaik (2008) and Kregel (1998 & 2008) in their study identified that a noteworthy feature of the current global crisis has been the failure of most mainstream analysts to predict its onset, estimate its duration and severity or lay bare the mechanisms that contributed to its unfolding. This weakness of telescopic and analytical faculty has been most evident with respect to developing Asia, especially China and India. Bergsten (2008) & Kohn (2008) explained that even as the global crisis and its effects were being recognised with a lag, Asian developing countries—and these two countries in particular -- were seen as the potential shock absorbers in the global system, with predictions that their persisting expansion and relatively high rates of growth would prevent the global downturn from becoming a meltdown. Such arguments were reinforced by econometric studies, which found evidence of divergence of business cycles across developed and emerging market economies in the period of globalisation. R Mohan, Deputy Governor, RBI (2008) in his speech during IMF-FSF meeting analyzed the impact of financial turmoil on emerging and Asian economies. Observations given by him were that India's growth process is mostly domestic demand driven and country is having comfortable foreign exchange reserves. Further the financial stability in the country has been achieved by prudent policies which prevents from excessive risk trading. Ghosh (2006) argues that India's success in responding to global financial crisis can be attributed to four sets of decision making: devaluation, involvement of IMF, partial liberalization and gradual opening up of the external sector. The study has analyzed that the political interventions have helped in emergency stabilization measures of economy.

**Research Methodology:**

The present study focuses on

- Causes of global financial crisis
- Impact on Indian economy
- Response of India for protection from financial turmoils

Data: The data has been collected from secondary resources from the official website of Handbook of Statistics, Reserve bank of India and official website of SEBI & BSE.

**Results and Discussion:**

Following are few emerging structural characteristics of Indian economy:

1. Rapid growth in India's international trade in services in 2000s enabled by expansion in information technology facilitated cross-border delivery of services. Financial channel emerged as dominant factor with gross capital flows rising to 48 percent from 5 percent of GDP in 1980s. Gross capital & current account flows in balance of payments have increased to over 100 percent as compared to 22 percent in 1980s. This was all due to progressive liberalisation of capital account which gave fillip to global financial integration.
2. There has been high degree of co-movement between global and Indian business cycles. The correlation between IIP of Indian and advanced economies has risen to 0.50 during 1993-2010. IIP growth was 3.9 percent in 2008, during the time of global financial turmoil as compared to 9.2 percent in 2007.
3. The co-movement between world imports and India's exports has increased significantly in recent years. Because of high correlation; exports from India also declined in 2009 to 168.2 billion dollars from 176.4 billion dollars in 2008.
4. Growth rate of Indian economy: Table 1 shows that the growth rate which was increasing upto 2007, reduced to 7.4% in 2008 from 9% in 2007 due to global recession. The lower growth rate continued in 2009. Notwithstanding the weakening fundamentals, one key factor that reduced vulnerability was the absence of private sector external debt. Individuals and

firms here could not raise foreign currency-denominated and banking sector was not allowed to hold financial assets abroad. Due to this the private sector's interests were more geared towards domestic deregulation rather than on external liberalization.

Table: 1 GDP- Growth Rate

| Year | GDP- Growth rate (%) |
|---|---|
| 1999 | 5.5 |
| 2000 | 6 |
| 2001 | 4.4 |
| 2002 | 4.3 |
| 2003 | 8.3 |
| 2004 | 6.2 |
| 2005 | 8.4 |
| 2006 | 9.2 |
| 2007 | 9 |
| 2008 | 8.4 |
| 2009 | 7.4 |
| 2010 | 10.4 |

Following causes have been identified responsible for Global Financial Crisis:

- Sub-Prime Lending: Sub-prime lending lead to the increase in demand of housing which fuelled housing price and consumer spending. Some house owners even re-financed their homes with lower interest rates and take second mortgage to use the funds for consumer spending. This house-bubble lead to the surplus inventory of houses and ultimately fall in house prices in beginning of 2006. Depreciated house prices made refinancing more difficult. Excess supply of houses made house owners at risk of default and foreclosure.
- Financial engineering- Derivatives
- Securitization Practices: Practices in which assets, receivables & financial instruments are pooled together as collateral to third party (Investment Banks). The flair of securitization i.e. mortgage based securities accelerated in 1990s and the total amount of MBS tripled between 1996 to 2007 to 7.3 trillion $. Securitization resulted in a secondary market for mortgages and the lenders were no longer required to hold them to maturity. Credit crisis cannot be blamed on sub-prime mortgages alone, but rather on the securitization of such mortgages which created a notional far exceeding the actual value of the underlying assets actually available. The credit risk in sub-prime mortgages got passed on to other investors through the securitization mechanism and with a wide arena of investors globally, the impact of the credit crisis is felt on a global level.

- Inaccurate Credit Ratings: High credit ratings encouraged flow of investor funds into mortgage based securities helping finance the housing boom in 2008. Proper ratings were not given to complex financial instruments (Gregorio 2008).
- Relaxed Regulations: An accelerated process of financial innovation in market segments was poorly regulated. Lax internal controls and ineffectiveness of regulatory oversight in the context of non-transparent assets reflects the cause for the fall of financial institutions. The operations of derivatives markets were manipulated rather than being transparent.
- Large Global imbalances
- Fundamental cause identified is the excessively accommodative monetary policy in the US and other advanced economies (2002-2004)

**Issues & Lessons**

- Avoid high volatility in monetary policy
- Appropriate response of monetary policy to asset prices
- Manage capital flow volatility
- Look for signs of over leveraging
- Dynamic financial regulation: capital buffers, dynamic provisioning

**Impact on India:**

1. Real channel; US, European union and Middle East accounting three quarters of India's goods & services suffered downturn. With deepening of recession services export was slowed down. Demand effects were particularly severe in housing, construction, consumer durables and IT sector. The export slow-down is one of the primary suffer on real channel side; Growing trade integration is one of the route to affect real economy by deceleration in exports of goods & services, which earlier contribute to boom. Table 2 depicts that during the period of 1993-94 after LPG; when there was increase in exports from 69751.4 rupee crores, GDP also increased from 681517 to 792150, but the percentage increase in exports was much more than the percentage increase in GDP. However, due to financial turmoils in year 2008-09; exports declined from 28.19% to 0.57% however, GDP declined to 14.86% from 15.75%. This shows that during the phase of global financial crisis, exports declined to a large extent.

Table: 2 Exports & GDP Interlink ages

| Year | Total Exports/All Commodities | %age Rise | GDP at Factor Cost | %age Rise |
|---|---|---|---|---|
| 1990-91 | 32557.6 | 17.71 | 515032 | 16.49 |
| 1991-92 | 44041.8 | 35.27 | 594168 | 15.37 |
| 1992-93 | 53688.3 | 21.9 | 681517 | 14.7 |
| 1993-94 | 69751.4 | 29.92 | 792150 | 16.23 |
| 1994-95 | 82674.1 | 18.53 | 925239 | 16.8 |
| 1995-96 | 106353.3 | 28.64 | 1083289 | 17.08 |
| 1996-97 | 118817.1 | 11.72 | 1260710 | 16.38 |
| 1997-98 | 130100.6 | 9.5 | 1401934 | 11.2 |
| 1998-99 | 139753.1 | 7.42 | 1616082 | 15.28 |
| 1999-00 | 159561.4 | 14.17 | 1786526 | 10.55 |
| 2000-01 | 203571 | 27.58 | 1925017 | 7.75 |
| 2001-02 | 209018 | 2.68 | 2097726 | 8.97 |
| 2002-03 | 255137.3 | 22.06 | 2261415 | 7.8 |
| 2003-04 | 293366.8 | 14.98 | 2538170 | 12.24 |
| 2004-05 | 375339.5 | 27.94 | 2971464 | 17.07 |
| 2005-06 | 456417.9 | 21.6 | 3390503 | 14.1 |
| 2006-07 | 571779.3 | 25.28 | 3953276 | 16.6 |
| 2007-08 | 655863.5 | 14.71 | 4582086 | 15.91 |
| 2008-09 | 840755.1 | 28.19 | 5303567 | 15.75 |
| 2009-10 | 845533.6 | 0.57 | 6091485 | 14.86 |
| 2010-11 | 1157474.6 | 36.89 | 7157412 | 17.5 |

Figure:1 Interlink ages in percent change in exports & GDP

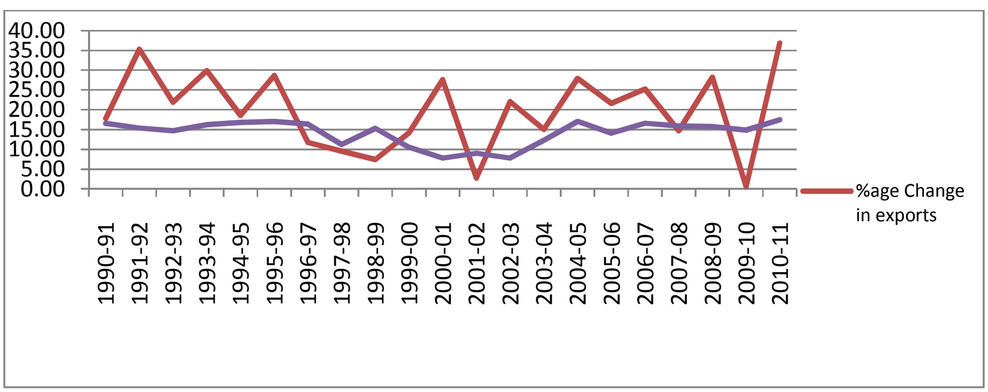



Figure 1 depicts that highs and lows of percentage change in exports and GDP are in the same direction in many cases.

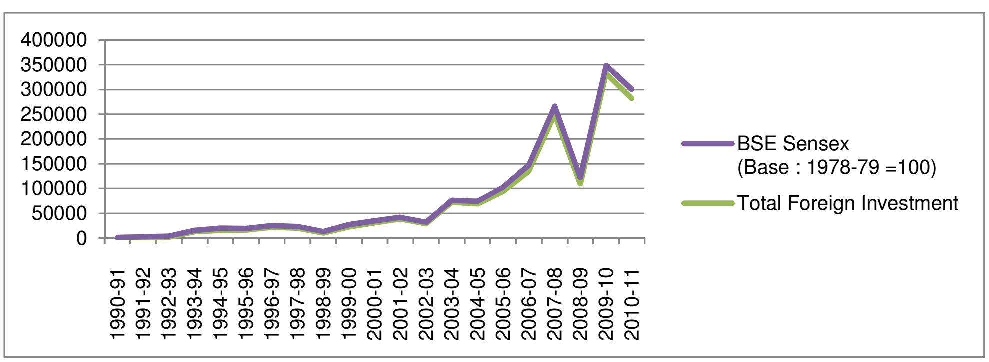
2. Impact on Stock Market: The stock markets of Indian were affected by global financial turmoils. SENSEX which reached to the mark of 21000 in the month of January 2008 plunged to below 10000 in the month of October 2008. Table 3 shows the significant

relation between foreign investment in the economy and SENSEX movements. During 2007-08 when total foreign investments (Portfolio Investment + Direct Investment) increased to 249921 Rupee crores, from 135080 in 2006-07; SENSEX value also rose to 16568.89 from 12277.33 in previous year. And during the year of financial crisis in 2008-09, exports reduced to 110123 Rupee crores and SENSEX value also declines to 12365.55. Figure 2 clearly shows that BSE SENSEX and Total foreign investment are very closely interrelated.

Table: 3 SENSEX & Foreign Investments

| Year | Direct investment | Portfolio investment | Total Foreign Investment | BSE Sensex (Base : 1978-79 =100) |
|---|---|---|---|---|
| **1990-91** | 174 | 11 | 185 | 1049.53 |
| **1991-92** | 316 | 10 | 326 | 1879.51 |
| **1992-93** | 965 | 748 | 1713 | 2895.67 |
| **1993-94** | 1838 | 11188 | 13026 | 2898.69 |
| **1994-95** | 4126 | 12007 | 16133 | 3974.91 |
| **1995-96** | 7172 | 9192 | 16364 | 3288.68 |
| **1996-97** | 10015 | 11758 | 21773 | 3469.24 |
| **1997-98** | 13220 | 6794 | 20014 | 3812.86 |
| **1998-99** | 10358 | -257 | 10101 | 3294.78 |
| **1999-00** | 9338 | 13112 | 22450 | 4658.63 |
| **2000-01** | 18406 | 12609 | 31015 | 4269.69 |
| **2001-02** | 29235 | 9639 | 38874 | 3331.95 |
| **2002-03** | 24367 | 4738 | 29105 | 3206.29 |
| **2003-04** | 19860 | 52279 | 72139 | 4492.19 |
| **2004-05** | 27188 | 41854 | 69042 | 5740.99 |
| **2005-06** | 39674 | 55307 | 94981 | 8278.55 |
| **2006-07** | 103367 | 31713 | 135080 | 12277.33 |
| **2007-08** | 140180 | 109741 | 249921 | 16568.89 |
| **2008-09** | 173741 | -63618 | 110123 | 12365.55 |
| **2009-10** | 179059 | 153516 | 332575 | 15585.21 |
| **2010-11** | 138462 | 143435 | 281897 | 18605.18 |

Figure:2 SENSEX & Total Foreign Investment Relation



The adverse impact on India is mainly in the equity markets because of reversal of portfolio equity flows and the effects on domestic forex markets and liquidity conditions. The contagion of crisis has spread to India even contrary to the 'decoupling theory' which says that advanced economies if hit by the crisis would not affect the emerging economies having substantial foreign reserves, improved policy framework, robust corporate balance sheets and healthy banking sector. However, all channels of India were affected by the global crisis.

3. Financial markets; as a consequence of the global liquidity squeeze the credit demand of Indian corporates and Banks was shifted to domestic banking sector from global finances leading to pressure on domestic capital and money market. Global deleveraging process lead to reversal of capital flows which put pressure on forex markets and leading downward trend of rupee. To manage volatility, Reserve bank's intervention in forex market added to liquidity tightening. There was rapid depreciation of exchange rate and surge in short-term interest rates.

4. Confidence channel; Initially Indian markets continued to function in an orderly manner but immediately after Lehman failure in September 2008, the risk aversion of financial system increased and banks became cautious about lending.

In 1991, two immediate external shocks contributed to the large current account deficit of 3.1 in 1990-91. First was the Gulf crisis in August 1990 which increased petroleum costs. The government had to bear the additional burden of rehabilitating 1, 12, 000 Indian workers from Middle East as remittances from that region declined. The second shock was the global recession: declined world growth to 2.25 percent in 1991 from 4.5 percent in 1988. Export growth in US turned negative in 1991. Large fiscal imbalances of 1980s and precipitated by the Gulf war; India's oil import bill swelled, exports slumped, credit dried up and investors took their own money out leading to fiscal deficit rise to 12.7 percent. All these lead to: Reduction in Capital Flows, Pressure on Balance of Payments, Monetary & Liquidity Impact, Reduction in flows from non-banks, Perceptions of credit crunch, Fiscal Stress: Oil, Fertiliser & Food subsidies, Pay Commission, Debt Waiver, NRE, Stimulus Packages, Large Increase in Market Borrowings.

**What has not happened in India**:

1. No Subprime
2. No Toxic Derivatives
3. No Bank losses threatening capital
4. No bank capital crunch
5. No mistrust between banks

**Strong fundamentals of India:**

- Robust Financial sector
- Flexible Monetary policy with sufficient instruments
- Corporate sector not too much leveraged
- Buoyant FDI
- Improving Agriculture
- Domestically financed growth
- Apart from the above fundamentals the three important features of economic performance of India were seen to warrant the impact of global crisis. First is the superior performance of GDP as compared to other developed countries. Other than the stimuli linked to global integration; higher growth have been linked to the alternative forces like potentially large domestic markets and 'favourable' policy environments. Second is that India is large in terms of population and geography. Although the per capita income of these countries is far behind many developing countries; but it implies that the growth of country will generate demand for many global economies and thus contributing to their growth. Third is the capability of economy by taking steps like; capital controls and limited convertibility of currency to capital account transactions to prevent economy from global financial turmoils.

**Steps taken up:**

1. Current Account: Full but gradual opening up
2. Capital Account: Equity flows encouraged, Debt flows subjected to ceilings and end-use restrictions
3. Capital Outflows: Progressively liberalized
4. Prudential Regulations for Financial sector especially banks;

Liquidity & Capital, inter-bank liabilities in relation to their net worth, Basel II framework, Dynamic Provisioning

5. Monetary Policy Response: RBI's pressure was to keep the domestic money & credit markets function normally so they focussed on three objectives-

- Expanding Rupee Liquidity
- Managing Forex Liquidity: NRE & FCNR interest ceilings raised, ECB Norms relaxed, Rupee-Dollar swap facility and NBFCs & Housing Finance companies were allowed to access foreign borrowing.
- Unconventional Measures: Rupee-Dollar Swap facility to give comfort in managing short term foreign funding requirements, exclusive refinance window for supporting NBFCs

and expanding lendable resources to apex finance institutions for refinancing credit extended to small industries & exports.

The monetary policy was tightened in the second half of the decade. To provide more liquidity to credit markets; RBI gradually reduced repo rate to 4.75 % from 9% in August 2008. Reverse repo was reduced to 3.25% from 6%. RBI reduced call rate sharply to 3.22% for injecting liquidity to the market. CRR was reduced to 5% from 7.5% (2007-08).

6. Fiscal Policy Responses: Indian government focused on the bailout of those industries which were most affected by the financial crisis and to stimulate the demand of the country's output. Three stimulus packages that lowered tax rates, increased tax subsidies and increased incentives that encouraged growth in consumption and demand. Revised pay structure of government employees raised disposable income for significant part of labour force.

**Conclusion**

While the impact of global financial crisis is having a devastating impact on most economies of the world, but its impact on Indian economy is not that severe. The economic indicators in United States and European Union countries point to severe contraction in these countries, but the slowdown in emerging markets have been smaller. The strengths of Indian economy along with the timely and appropriate monetary and financial responses by Indian government helped manage the adverse effects of the crisis. Unlike other emerging economies; banking sector in India is highly regulated and RBI has number of tools at its disposal to intervene effectively.

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