

SUMMARY SHEET



**Impact of Global
Financial Crisis of
2007-08 and the
Indian Response**





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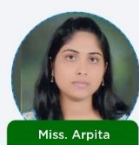
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Important Points

1. This Summary Sheet shall only be used for Quick Revision after you have read the Complete Notes
2. For Building Concepts along with examples/concept checks you should rely only on Complete Notes
3. It would be useful to go through this Summary sheet just before the exam or before any Mock Test
4. Questions in the exam are concept based and reading only summary sheets shall not be sufficient to answer all the questions

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1 Introduction

The interconnectedness and interdependence of economies in the age of **financial globalisation** come with their set of **merits and demerits**. Both strength and vulnerabilities are at play at the same time. Some major incidents like **Great depression in 1930s** and **Global financial crisis in 2007** (also called as US housing recession or subprime mortgage crisis) shook the foundation of well-established financial channels over the years.

1.1.1 About the Crisis

The United States, being the biggest economy in the world always enjoyed a strong position to influence the world economic affairs in a globalized world.

- With the housing boom in the United States in the early to mid-2000s, mortgage lenders seeking to capitalize on rising home prices were **less restrictive** in terms of the types of borrowers they approved for loans.
- As the housing prices continued to rise in North America and Western Europe, other financial institutions acquired thousands of these **risky mortgages** in bulk (typically in the form of mortgage-backed securities) as an investment, in hopes of a quick profit.
- Government entities like **Fannie Mae and Freddie Mac** guaranteed mortgages, even if they were subprime or those lent to people who wouldn't normally qualify for loans.

Precipitation of Crisis:

- In February 2007, the **Federal Home Loan Mortgage Corporation** (Freddie Mac) announced that it would no longer purchase risky subprime mortgages or mortgage-related securities.
- With no market for the mortgages it owned, and therefore no way to sell them to recoup their initial investment, **New Century Financial collapsed**. Just a few months later, in August 2007, **American Home Mortgage Investment Corp.** became the second major mortgage lender to crack under the pressure of the subprime crisis and the declining housing market.
- By March 2007, the housing slump had **spread to the financial services industry**. Business Week reported that **hedge funds** had invested an unknown amount in mortgage-backed securities

Important Terms

1. **Recession:** It refers to a **significant decline in general economic activity** in a designated region for given duration.
 - It had been typically recognized as two consecutive quarters of economic decline, as reflected by GDP in conjunction with monthly indicators such as a rise in unemployment.
2. **Mortgages:** A mortgage is a **debt instrument**, secured by the collateral of specified real estate property, that the borrower is obliged to pay back with a predetermined set of payments.
3. **Sub Prime Lending:** It means making **loans to people who may have difficulty maintaining the repayment schedule**. Borrowers who do not qualify for market interest rates.
4. **Credit Default Swaps:** These are a type of **insurance against default risk** by a particular company.
5. **Hedge Funds:** They are financial partnerships that use pooled funds and employ different strategies to earn active returns for their investors.

- These funds may be managed aggressively or make use of derivatives and leverage to generate higher returns.
 - Hedge funds are generally considered to be more aggressive, risky, and exclusive than mutual funds.
6. **Derivatives:** A derivative is a **contract between two or more parties** whose value is based on an agreed-upon underlying financial asset (like a security) or set of assets (like an index).
- Common underlying instruments include bonds, commodities, currencies, interest rates, market indexes, and stocks.

Decline in Housing market:

By then, as the subprime crisis continued, **housing prices across the country began to fall**, due to a glut of new homes on the market, so millions of homeowners—and their mortgage lenders—were suddenly “underwater,” meaning their homes were valued less than their total loan amounts. Loans were given during real estate boom time, but when the bubble burst, banks lost most of their money.

Early Government Response

1. With the American economy teetering, the **U.S. Federal Reserve** began acting, reducing the national target interest rate, which lenders use as a guide for setting rates on loans. Interest rates were at 5.25 percent in September 2007. By the end of 2008, the Fed had reduced the **target interest rate to zero percent** for the first time in history in hopes of once again encouraging borrowing and, by extension, capital investment.
2. In February 2008, President George W. Bush signed the **Economic Stimulus Act** into law. The legislation provided **taxpayers with rebates** (\$600 to \$1,200), which they were encouraged to spend; reduced taxes; and increased the loan limits for federal home loan programs.

However, even with these interventions, the country’s economic troubles were far from over. In March 2008, investment **banking giant Bear Stearns collapsed** after attributing its financial troubles to investments in subprime mortgages, and its assets were acquired by JP Morgan Chase at a cut-rate price. A few months later, financial behemoth **Lehman Brothers declared bankruptcy** for similar reasons, creating the largest bankruptcy filing in U.S. history.

With fears that similar collapses could be sustained by other major financial companies and banks, President Bush approved the **Troubled Asset Relief Program (TARP)** in October 2008. In early 2009, TARP funds were also used to bail out automakers General Motors and Chrysler (a combined \$80 billion) and banking giant Bank of America (\$125 billion).

1.2 What were the main Causes for the Recession?

The crisis led to unprecedented Government intervention in the markets as it developed into the worst global recession since World War II. The causes of the disaster are numerous. The following is a look at some of the factors behind the crisis.

- a) **Excessive risk taking in favourable macroeconomic environment:** Banks and other lenders were willing to make increasingly large volumes of risky loans for a range of reasons:
1. **Competition increased between individual lenders** to extend ever-larger amounts of housing loans in good economic environment.
 2. Many lenders providing housing loans did not closely assess borrowers' abilities to make loan repayments.
 3. Lenders had little incentive to take care in their lending decisions because they did not expect to bear any losses. Instead, they **sold large amounts of loans to investors**, usually in the form of loan packages called '**mortgage-backed securities**' (MBS).
 4. Over time, MBS products became increasingly complex and opaque, but continued to be rated by external agencies as if they were very safe.
 5. Investors who purchased MBS products mistakenly thought that they were buying a very low risk asset. These investors included large US banks, as well as foreign banks from Europe and other economies that sought higher returns than could be achieved in their local markets.
- b) **Increased borrowings by banks and Investors:** In the lead up to the crises, banks and other investors in the United States and abroad borrowed increasing amounts to expand their lending and purchase **MBS products**. As a result, when house prices began to fall, banks and investors incurred large losses because they had borrowed so much.
- c) **Regulation:** Regulation of subprime lending and MBS products was **too lax**. There was **insufficient regulation** of the institutions that created and sold the complex and opaque MBS to investors.
- d) **Ignoring the early warning signs:** Many a times during the 2007, there were clear signs of crisis. However, most of the warning signs were ignored by the federal reserves. It kept the interest rates lower to spur homeowners into buying homes.
- e) **Policy errors: Cheap money policy** after September 11, 2001 the U.S. Federal Reserve pursued a policy of drastically sinking interest rates. Rising housing prices combined with the low rates prompted millions to use their homes as ATMs.

1.3 Impact of Global Financial Crisis

1.3.1 Global Impact

The crisis rapidly spread into a global economic **shock**, resulting in **several bank failures**. Economies worldwide slowed during this period since credit tightened and international trade declined. Housing markets suffered and unemployment soared, resulting in evictions and foreclosures. Several businesses failed.

- Indeed, from 2010 through 2014, multiple European countries—including **Ireland, Greece, Portugal and Cyprus**—defaulted on their national debts, forcing the European Union to provide them with “bailout” loans and other cash investments.
- These countries were also compelled to implement “**austerity**” measures—such as **tax increases and cuts to social benefit programs** (including healthcare and retirement programs)—to repay their debts.
- The impacts of the crisis on the **financial and real sectors of the economy** were also **not uniform** across the countries.
 - While some economies that were **structurally strong were able to better withstand the crisis**, others had to be bailed out with extensive and multiple stimulus packages to overcome the adverse effects on the domestic economies.
 - The consensus opinion was that countries that curtailed the use of risky assets and encouraged domestic investment and savings were less affected by the crisis.
 - The countries that did not adequately penalize risky behaviour and those that had high rates of consumption were more severely affected.

1.3.2 Impact on U.S

- The financial crisis cost the U.S. an estimated **\$648 billion due to slower economic growth**. That equates to an average of approximately \$5,800 in lost income for each U.S. household.
- Federal government spending to mitigate the financial crisis through the Troubled Asset Relief Program (TARP) resulted in a net cost to taxpayers of **\$73 billion**.
- The U.S. lost \$3.4 trillion in real estate wealth from July 2008 to March 2009 according to the Federal Reserve. This is roughly \$30,300 per U.S. household.
- The U.S. lost \$7.4 trillion in stock wealth from July 2008 to March 2009, according to the Federal Reserve.
- **5.5 million more American jobs were lost** due to slower economic growth during the financial crisis than what was predicted by the September 2008.

1.3.3 Impact on Emerging Economies

There was strong impact of the crisis on the emerging economies (EMEs) as well. This impact was contrary to the ‘Decoupling theory’. The impact was in the form of:

1. **Large Capital flow reversals:** Due to Uncertainty, many foreign Funds took back the money invested in emerging economies
2. **Sharp widening of spreads on sovereign and corporate debt:** As people lost trust in the system, corporates find it difficult to raise money and they could only do so by offering higher coupon rates. This increases the difference in coupon rate issued by government and coupon rate offered by the corporates
3. **Abrupt currency depreciations:** Due to capital outflow, the demand for foreign currency increased resulting in currency depreciation in many EMEs. Decrease in exports due to subdued demand also resulted in less capital inflows of foreign current, as a result the demand for foreign currency increased resulting in currency depreciation in many EMEs

Decoupling Theory

This theory held that even if advanced economies went into a downturn, emerging economies would remain unscathed because of their **substantial foreign exchange reserves, improved policy framework, robust corporate balance sheets and relatively healthy banking sector**.

- The crisis spread to the EMEs through all the three broad channels – **confidence, finance and trade** – reflecting increased global integration.

Channels of spreading the Crisis

1. **Confidence** Channel: It means the impact of the crisis on the **sentiment** of investors and consumers
2. **Trade** Channel: The effects of the crisis in the many sectors of the Emerging economies were transmitted through the **external trade channels**, that is, exports and imports.
3. **Finance** Channel: Large Capital flow reversal resulted in a credit crunch which directly impacted the financial markets.

1.3.4 Impact on India

1.3.4.1 Indian Economy before the Crisis

In 1991, India started implementing a **policy of economic liberalization**, which has been opening the Indian market to the outside world in different areas.

- India's engagement with the global economy became **deeper** from the 1990s. Total merchandise trade which was hardly 15 per cent of India's GDP in 1990-91 (April-March) rose by **nearly two and half times** to 36 per cent of GDP in 2007-08; **invisibles trade rose about fourfold** from just 5 per cent of GDP to 19 per cent in the same period; and **capital flows increased even faster** at more than fivefold from 12 per cent of GDP to 65 per cent of GDP over the same period.
- The liberalization policy has attracted **growing foreign direct investments (FDI)** in the various industry sectors and **portfolio investments in the Indian capital markets**.
- **Regulatory reforms** introduced in the capital markets have **increased transparency which helped attract portfolio investments** from foreign investors.
- However, at the same time, the **deepening global integration** of India has made it vulnerable to the global financial crisis. The impact of the financial crisis was felt by the developing economies as well and India was not aloof. The Indian financial system was **not directly exposed** to the toxic or distressed assets of the developed world.

1.3.4.2 Why was there impact on India?

India's rapid and growing integration into the global economy made it impacted due to crisis. However, the impact on India was not as much as it could have been at that time.

1.3.4.3 Reasons for low impact on India

- With lower dependence on exports and a **sizeable contribution of its GDP came from domestic sources**, India faced a less severe impact.
- Indian banks had **limited exposure to the U.S. mortgage market** as also to the financially stressed global financial institutions.
- In India, there was robust, **well capitalized and well-regulated** financial sector.
- India by 2008 had **large stock** of foreign reserves.
- After the 1997 Asian financial crisis, Indian central bank was gradually and cautiously opening the capital account. **India didn't adopted full capital account convertibility**.

Capital Account Convertibility

Capital account convertibility means the **freedom to convert a currency for capital transactions** and the rupee is not fully convertible on that front yet, though capital flows have been liberalised in recent years.

- Capital Account Convertibility is not just the currency convertibility freedom, but more than that, it involves the **freedom to invest in financial assets of other countries**.

1.3.4.4 What Kind of Impact was there in India?

Though the impact was low but still there was some indirect impact on the economy because of the recession abroad

Negative Impact

1. **Erosion of access for Low-Cost Foreign Capital:** Indian corporate sector's access to external funding was **markedly increased** in the years 2003-08 which was not available after the crisis
 - While funds were available domestically, they were expensive relative to foreign funding.
 - India was **increasingly financing its growth** by borrowing in the external markets.
 - In a global market awash with liquidity and on the promise of India's growth potential, foreign investors were willing to take risks and provide funds at a lower cost.
 - As a percentage of GDP, foreign debt was **close to 20%**.
2. **Capital Outflows:** Due to Uncertainty, many foreign Funds took back the money invested in emerging economies. **There was significant impact on the stock market due to this**
3. **Decrease in Growth/Exports in export-oriented sectors:** The growth of the **export-oriented** companies was impacted as there was subdued demand in foreign countries resulting in low export volume. International Trade reduced by huge amount
4. **Currency Depreciation:** Due to capital outflow, the demand for foreign currency increased resulting in currency depreciation in many EMEs. Decrease in exports due to subdued demand also resulted in less capital inflows of foreign current, as a result the demand for foreign currency increased resulting in currency depreciation in many EMEs

Positive Impact

1. The **fall in international commodity prices** and more particularly crude oil reduced the import bill.

1.3.4.5 Timeline of spreading of impact of Crisis to India

1. The first impact of the global crisis on India was **felt in the stock market** in January 2008.
 - This came through the **reversal of inflows from foreign institutional investors (FIIs)** into the country.
 - India had received about US\$ 17.7 billion as net equity investment inflows from FIIs during 2007. This turned into a net disinvestment of US\$ 13.3 billion during the period from January 2008 to February 2009.
 - The sudden withdrawal of FIIs from the Indian stock market brought about a crash in the market in January 2008.
2. After that **capital inflows** under **external commercial borrowings, short-term trade credit and external borrowing by banks** dropped sharply from April 2008.
3. The crisis then moved to the **foreign exchange market**.

- The rupee began to tumble from end-April 2008 to November 2008 by about 20 per cent. In fact, the **Indian Rupee had depreciated against many of the major foreign currencies** and the debt service cost was rising.
 - The Reserve Bank of India intervened by **selling dollars** to smoothen the fall of the rupee.
 - The heavy selling led to a **massive depletion of the stock of reserves from US\$ 315 billion in May 2008 to US\$ 246 billion** in November 2008.
4. By mid-September 2008, the crisis gripped India's money market.
- The drying up of funds in the foreign credit markets led to a **virtual cessation of external commercial borrowing for India** including the access to short-term trade finance.
 - The collapse of stock market ruled out the possibility of companies raising funds from the domestic stock market.
 - Indian banks also **lost access to funds from abroad**, as inter-bank borrowing seized up in the US and Europe. And, instead, banks had to send funds to their branches abroad in those countries.
 - All these put heavy pressure on domestic banks leading to a **liquidity crisis** from mid-September to end-October 2008.
5. In the second half of 2008-09, **merchandise exports declined by 18 per cent**, imports by 11 per cent.
- The growth in software exports dropped to less than 4 per cent and **remittances declined** in absolute terms by about 20 per cent in the second half of 2008-09.
 - Thus, the impact of the global crisis manifested itself in the real sector through the collapse of India's trade sector.
6. In the next stage, the crisis spread to the domestic credit markets. Its sign were:
- **Virtually negligible or negative growth** in industrial output from October 2008.
 - Negative growth in central tax revenue collection also from October 2008
 - Expansion of bank finance to the commercial sector slumped to Rs. 609 billion during the four-month period, November 2008 to February 2009.
 - The growth in GDP moved down to **5.8 per cent** (year-on-year) during the second half of 2008-09 from 7.8 per cent in the first half.
 - This drop in growth is the combined effect of **monetary tightening** till end August 2008, **high inflation** (induced by the hike in world commodity prices) and the **global crisis**.

1.4 Important Lessons from the 2007 Crisis

The crisis has shown that irrespective of the degree of globalisation of a country and the soundness of domestic policies, it **can be impacted by a crisis in any other economy** due to the interlinkages in the global economy. Some of the important lessons from the 2007 Global Financial crisis were:

- Among the biggest lessons from the GFC for financial regulation was that **consumer protection must lie at the heart** of financial sector regulation.
- The lesson for Central banks that emerged from the crisis is that **financial stability can be jeopardised** even if there is price stability and macroeconomic stability. Thus, apart from price stability, the central banks would have to consider asset prices and focus on financial stability as an explicit objective of policy.
- It is important that **fiscal buffers are established in good times** to provide the necessary fiscal space for countercyclical fiscal measures in bad times.

- Financial institutions would have to be **less leveraged and better regulated**.
- The international financial architecture **needs to be strengthened** to address the challenges of the global economy of the 21st century.
 - The crisis has exposed fundamental problems, not only in national regulatory systems affecting finance, competition and corporate governance, but also in the international institutions and arrangements created to ensure financial and economic stability.
 - The **IMF, the Financial Stability Board (FSB) and the G-20** should provide the effective platform for addressing global issues in a more credible manner.
- Post crisis it was understood that when mis-selling is done on a large scale, it can lead to the risk of failure of financial institutions and the financial system.

1.5 Response to the Crisis

1.5.1 Global Response to the Crisis

In response to the shocks caused by the crisis, world economies had adopted **reforms to their economic policies** and have implemented **several fiscal and monetary stimulus initiatives** to recover from the crisis.

- Some of these initiatives include **tax rebates and tax cuts** at both the corporate level to spur investment, and at the personal level to **increase consumption** and to **bail out households** with diminished wealth and income.
- Other initiatives provide **incentives to invest in infrastructure** and public works projects.
- Size of the **stimulus package** provided by the European Union for 2009 was **0.9% of the GDP**, while the corresponding figures for the United States and China were **2% and 7.1%**, respectively.
- In addition to the fiscal stimulus initiatives, many countries adopted a **more accommodative monetary policy to ease the liquidity tightening** in the credit markets.

1.5.2 Indian Response to the Crisis

1.5.2.1 Immediate response by India to the crisis

Both the Government and the Reserve Bank of India responded to the challenge in close coordination and consultation. The major policy response to the crisis came in the form of **loosening of the monetary policy** and **administering fiscal stimulus packages**.

1.5.2.1.1 Changes in monetary policy and Liquidity:

The Reserve Bank's policy response was aimed to achieve three main objectives:

- to **maintain a comfortable rupee liquidity** position.
- to **augment foreign exchange liquidity**.

The steps taken to maintain a comfortable rupee liquidity

1. Monetary policy remained in the **tightening mode** till end-August 2008.
2. **Inflation** measured in terms of **wholesale price index (WPI)** peaked at 12.9 per cent in early August 2008 and remained high for some time.
3. The Reserve Bank of India (RBI) acted aggressively from mid-October to **ease the situation** by a **series of rate cutting and liquidity injecting measures** till April 2009.

4. Through successive steps, the **RBI brought down cash reserve ratio (CRR)** from 9 to 5 per cent, **statutory liquidity ratio (SLR)** from 25 to 24 per cent, the **repo rate** from 9 to 4.75 per cent and **reverse repo rate** from 6 to 3.25 per cent.
5. **Special steps by RBI:**
 - a) The RBI opened a **special window** for banks to lend to mutual funds, non-banking financial companies (NBFCs) and housing finance companies.
 - b) The central bank opened refinance facilities for banks, the **Small Industrial Development Bank of India (SIDBI), the National Housing Bank (NHB), and the EXIM Bank.**
 - c) The RBI also introduced a liquidity facility for NBFCs through a special purpose vehicle (SPV), and increased export credit refinance.

The steps taken to augment foreign exchange liquidity

1. The RBI made **dollar swap arrangements** for branches of Indian banks in the US and Europe facing shortage of dollar funds with the seizing up of the inter-bank markets there.

1.5.2.1.2 Fiscal Stimulus Package

Recognizing the depth and extraordinary impact of this crisis, the Central Government invoked the **emergency provisions of the Fiscal responsibility and Budget Management Act** to seek relaxation from the fiscal targets.

The Central Government announced three successive fiscal stimulus packages one in early December 2008, the second one in early 2009 and the last one in early March 2009. It includes:

1. Reduction in central excise duty by 4 percentage points.
2. Additional plan spending of Rs. 200 billion.
3. **Additional borrowing** by State Government of Rs. 300 billion for plan expenditure.
4. Assistance to certain export industries in the form of **Interest subsidy on export finance.**

The total fiscal burden for these packages amounted to **1.8 percent of GDP.**

- There were a few other measures like:
 - Relaxation of **external commercial borrowing** rules.
 - Raising the **cap of FII** investment in debt.
 - Permission given to **India Infrastructure Financing Company Limited (IIFCL)** in floating tax-free bonds for infrastructure funding.

1.5.2.2 Benefits of Immediate response

India responded to the crisis immediately with **multipronged approach.** The benefits of this immediate response were:

1. The year 2009-10 had shown some **signs of early recovery.**
2. Industrial output which virtually stagnated in the second half of 2008-09 had shown **positive growth** of 3.7 per cent in the first quarter of 2009-10.
3. The group of six core industries consisting of power, coal, steel, cement, crude oil and refinery products had improved with its **composite index growing at 4.8 per cent** in the first quarter of 2009-10.

4. The **purchasing managers' index** (PMI) had been above 50 (showing expansionary conditions) in the 2009-10.
5. There was **strong recovery** of the stock market and a **substantial rise** in capital market mobilization from March 2009 onward.
6. There was strong recovery in the corporate profits during 2009-10 in contrast to sharp declines in 2008-09.

1.5.2.3 Why was there need for long term reforms in India?

However, even after the strong immediate response there were certain strong negative signals during 2009-10 like:

- Sharp drop in exports and imports was continued.
- Decline in the sales of commercial vehicles during 2009-10.
- Fall in Central Government net tax revenue receipts.
- Little evidence of a pickup in demand in the economy.
- While bank deposit growth remain high and rising, bank credit growth was falling sharply.
- The growth was estimated to drop further to 5 per cent in 2009-10 due to the continued impact of global crisis.
- **Huge fiscal deficits and rising public debt** were likely to hamper recovery prospects by putting an upward pressure on interest rates.
- No further monetary easing was expected as inflation was rising rapidly in the context of the failure of the monsoon.
- The global economy while showing some signs of levelling off was not expected to recover strongly anytime soon.

Nevertheless, the Indian economy would have recovered faster if could get a big boost in domestic business and consumer sentiments which were badly shaken by the global crisis. This was very well possible by undertaking structural and procedural reforms as has happened in the early 1990s.

1.6 Reforms in last 12 years in India

Various Reforms that have been taken over last some years can be categorized as given below. Let us discuss them one by one



1.6.1 Reforms taken by Reserve Bank of India

The reforms by RBI can be categorized as given below. Let us discuss them one by one



1.6.1.1 Monetary Policy and Liquidity Reforms

1. **Monetary Policy Committee:** India adopted a **flexible inflation-targeting framework** through the restructured **Monetary Policy Committee**.
2. **Targeted Long Term Repo Operations:** RBI brought the **26 stressed sectors** identified by the **Kamath Committee** within the ambit of sectors eligible under on tap Targeted Long-Term Repo Operations (TLTRO), providing **more liquidity** to the slowdown-hit economy.
 - Under TLTRO, banks can **invest in specific sectors through debt instruments** like corporate bonds, commercial papers and non-convertible debentures (NCDs) to push the credit flow in the economy.
3. **Market Stabilisation Scheme**
 - Market Stabilisation Scheme (MSS) was introduced in **April 2004 by RBI** to manage the **large capital flows**.
 - Large Capital Inflows leads to less demand for Dollar and hence rupee appreciates. Appreciation in rupee is not good for our exports. RBI Intervenes by buying dollars
 - When dollars are bought by giving rupees, Rupee is injected in the economy which leads to high liquidity which can lead to inflation
 - Under this scheme, the Reserve Bank has been **empowered to issue (sell) government Treasury Bills and medium duration dated securities** exclusively to manage liquidity appropriately.
 - The proceeds collected under MSS auctions are kept in a separate identifiable cash account with the RBI, and are **used for redemption and/or buy back of securities** issued under the MSS.
 - The MSS securities are indistinguishable from normal government Treasury Bills and dated securities in the hands of the holders.

1.6.1.2 Banking reforms by RBI for Risk Management

1. **Prompt Corrective Action (PCA) Framework:** It implies focus on three important parameters:
 1. Capital to risk-weighted assets ratio (CRAR),
 2. Net non-performing assets (NPA) and
 3. Return on Assets (RoA)

The Reserve Bank takes some actions and puts some restrictions on the bank as soon as the value for any one of these parameters goes beyond a certain limit.

2. **Appointment of Chief Risk officer:** RBI has mandated organizations to appoint Chief Risk officer. As per the RBI guidelines:
 - All banks shall appoint chief risk office
 - CRO has to control and coordinate the functions of Risk Management Department of the Bank
 - Because of importance RBI gives to this post, RBI has made CRO to report directly to the MD and CEO of the bank.
3. **Appointment of Chief Compliance Officer:** RBI has mandated appointment of Chief Compliance Office by the bank. His main responsibility is to conduct assessment of the compliance risk (at least once a year) and to develop a risk-oriented activity plan for compliance assessment.

4. **Risk based Internal Audit System (RBIA):** Under risk-based internal audit, the focus is on **risk identification, prioritization of audit areas and allocation of audit resources** in accordance with the risk assessment.
- This also ensures that Internal Audit Department is independent from the internal control process in order to avoid any conflict of interest and should be given an appropriate standing within the bank to carry out its assignments
 - In 2021, NBFCs and Urban Cooperative banks have also been mandated to implement Risk based Internal Audit System.
5. **RAROC Framework for Risk Pricing:** Risk Adjusted Return on Capital (RAROC) framework for pricing of loans, calls for data on portfolio behavior and allocation of capital commensurate with credit risk inherent in loan proposals.
- Risk-adjusted return on capital (RAROC) is a **modified return on investment (ROI) figure** that takes elements of risk into account.
 - For example, if bank gives a loan of 100 at interest rate of 8% then Return on Investment can be 8% but what about the defaults from people who will not return money. Therefore, ROI is not a right measure in case where associated risks are high.
6. **Practising Loan Review Mechanism:** It is an effective tool for constantly evaluating the quality of loan book and to bring about qualitative improvements in credit administration.
- Loan review refers to the **examination of outstanding loans** to make sure borrowers are adhering to their credit agreements and the bank is following its own loan policies.
7. **Follow up of Portfolio Management:** It refers to the prudent management of a bank's assets and liabilities to seek some **optimum combination of income or profit, liquidity, and safety**.
- The banks also use money with them to give loans, invest in equities, buy corporate bonds etc.
- So, they also need to have balanced portfolio to have liquidity, Safety and at the same time Profit.
8. **Reforms regarding Domestic Systemically Important Banks (D – SIBs):** It was observed during the recent global financial crisis that problems faced by certain large and highly interconnected financial institutions hampered the orderly functioning of the financial system, which in turn, negatively impacted the real economy

Some banks, due to their **size, cross-jurisdictional activities, complexity, lack of substitutability and interconnectedness**, become systemically important.

- The disorderly failure of these banks has the **potential to cause significant disruption** to the essential services they provide to the banking system, and in turn, to the overall economic activity.
- Therefore, the continued functioning of Systemically Important Banks (SIBs) is critical for the uninterrupted availability of essential banking services to the real economy.

Risks Posed by Systematically Important Banks (SIBs)

SIBs are perceived as banks that are '**Too Big To Fail (TBTF)**'. This perception of TBTF creates an expectation of Government support for these banks at the time of distress.

- Due to this perception, these banks enjoy certain advantages in the funding markets.
- However, the perceived expectation of Government support **amplifies risk-taking, reduces market discipline, creates competitive distortions, and increases the probability of distress** in the future.
- These considerations require that SIBs should be subjected to additional policy measures to deal with the systemic risks and moral hazard issues posed by them.

9. Basel Norms:

Basel III Norms

Basel norms or Basel accords are the **international banking regulations issued by the Basel Committee on Banking Supervision.**

- It is an effort to coordinate banking regulations across the globe, with the **goal of strengthening the international banking system.**
- Basel I norms were introduced in 1988 and Basel II norms were published in 2004.
- In 2010, Basel III guidelines were released in response to the financial crisis of 2008. The guidelines aim to promote a more resilient banking system by focusing on four vital banking parameters **viz. capital, leverage, funding and liquidity.** The norms were:
 - The **Capital adequacy ratio** is to be maintained at **8 %**. The minimum **Tier 1 capital ratio** and the minimum **Tier 2 capital ratio** have to be maintained at 10.5% and 2% of risk-weighted assets respectively.
 - In addition, banks have to maintain a **capital conservation buffer** of 2.5%.
 - **Counter-cyclical buffer** is also to be maintained at 0-2.5%.
 - The liquidity coverage ratio (LCR) will **require banks to hold a buffer of high-quality liquid assets** sufficient to deal with the cash outflows encountered in an acute short term stress scenario as specified by supervisors. This is to prevent situations like **"Bank Run"**.
 - The leverage rate must be **at least 3 %**. The leverage rate is the ratio of a bank's tier-1 capital to average total consolidated assets.

Important terms

1. **Tier 1 Capital:** It refers to a bank's **core capital**, equity, and the disclosed reserves that appear on the bank's financial statements. provides a cushion that allows it to weather stress and maintain a continuity of operations.
2. **Tier 2 Capital:** It refers to a bank's supplementary capital, such as undisclosed reserves and unsecured subordinated debt instruments that must have an original maturity of at least five years.

Tier 2 capital is considered less reliable than Tier 1 capital because it is more difficult to accurately calculate and more difficult to liquidate.

3. **Capital Adequacy Ratio:** It is a measurement of a bank's available capital expressed as a percentage of a bank's risk-weighted credit exposures.

$$\text{CAR} = (\text{Tier 1 Capital} + \text{Tier 2 Capital}) / \text{Risk-Weighted Assets}$$

4. **Capital Conservation Buffer:** It is a **capital buffer of 2.5%** of a bank's total exposures that needs to be met with an additional amount of Common Equity Tier 1 capital.
 - The buffer sits on top of the **4.5% minimum requirement for Common Equity Tier 1 capital.** Its objective is to conserve a bank's capital.

5. **Countercyclical capital buffers** require banks to hold capital at times when credit is growing rapidly so that the buffer can be reduced if the financial cycle turns down or the economic and financial environment becomes substantially worse.

Basel Committee on Banking Supervision

It is the **primary global standard setter** for the prudential regulation of banks and provides a forum for regular cooperation on banking supervisory matters for the central banks of different countries.

- It was **established by the Central Bank governors of the Group of Ten countries in 1974.**
- The committee expanded its membership in 2009 and then again in 2014. The BCBS **now has 45 members from 28 Jurisdictions**, consisting of Central Banks and authorities with responsibility of banking regulation.
- Its objective is to enhance understanding of key supervisory issues and improve the quality of banking supervision worldwide.

You will study about various other measures taken by RBI in various other chapters in the course

1.6.1.3 Banking reforms by RBI under Corporate Governance

Lot of Reforms have taken place under Corporate Governance to make the functioning of banks more systematic and regulated. The reforms under Corporate Governance would be studied under a separate chapter in the course

1.6.2 Government Policy response

Objective	Steps Taken
Increase Foreign Investment in India through Business Reforms	<p>Various reform measures undertaken by the Government including Structural and deep-seated reforms such as</p> <ul style="list-style-type: none"> - Introduction of Goods and Services Tax (GST) - Insolvency and Bankruptcy Code (IBC) - Limiting the number of documents for import and export to 3 - Establishment of Import Data Processing and Management System (IDPMS) for data processing for payment of imports and effective monitoring. - Initiatives like 'Make in India', 'Digital India', 'creation of smart cities' and 'housing for all' have certainly boosted confidence among the investor community leading to more investment in Indian markets <p>In the 'Ease of Doing Business' report, that was introduced in 2003 by World Bank, India's position is continuously rising due making India a favourable Investment destination</p> <p>In recognition of the reforms carried out by the Government, Moody's Investor Service upgraded India's sovereign credit rating to Baa2 from the lowest investment grade of Baa3 after a period of 13 years.</p>
Recapitalization of Public Sector Banks to make them more resilient	<p>Government announced Indra Dhanush plan for revamping Public Sector Banks (PSBs) in August 2015, due to steadily increase in Nonperforming Assets.</p> <ul style="list-style-type: none"> - The plan envisaged, inter alia, infusion of capital in PSBs by the Government to the tune of Rs. 70,000 crores over a period of four financial year. After that also government has announced more capital infusion.

Stopping Leakages and Driving Consumption	Progress in Aadhaar enrolment and use in targeted delivery of benefits
Corporate Governances	Reduced Government Interference in Public Sector Banks: In nationalized banks, the government owns more than 50% of the shares, which gives it the majority voting rights. Because of this, the government can interfere in the boards of such banks and appoint inefficient people to the boards. That is, the appointment of the members might not always be based on merit. This will lead to overall efficiency and scams such as the Syndicate Bank scam. PJ Nayak Committee recommended setting up of Bank Investment Company (BIC) as a holding company or a core investment company. The government to transfer its share in the banks to this BIC. As a result of this, all the PSBs (public sector banks) would become 'limited' banks. BIC will be autonomous and have the power to appoint the Board of Directors and make other policy decisions. Until the BIC is formed, a temporary body called the Bank Boards Bureau (BBB) will be formed to do the functions of the BIC. Once BIC is formed, the BBB will be dissolved. The BBB will advise on appointments to the board, banks' chairman and other executive directors

You will study about various other measures taken in various other chapters in the course

1.6.3 Institutional Measures:

1. **FSDC:** One lesson from the crisis was that each regulator looking at risks in her sector was unable to see risks arising across the financial sector as a whole. To address the issue of financial stability the Government of India created a **non-statutory council of regulators, the Financial Stability and Development Council (FSDC)**. This body was expected to review the system as a whole.
 - The **Raghuram Rajani committee** (2008) on financial sector reforms first proposed the creation of FSDC.
 - The objective of FSDC is to strengthen and institutionalize the mechanism for maintaining financial stability, enhancing inter-regulatory coordination and promoting financial sector development.
2. **IBBI:** Several **expert committee reports** that investigated the problems being faced by Indian finance recommended changes in regulations and the regulatory architecture. For example, to create a **framework for bankruptcy of firms** required the **Indian Bankruptcy Code** to be enacted. A body IBBI was set up to oversee IBC code. The Insolvency and Bankruptcy Board of India (**IBBI**) is the regulator for overseeing insolvency proceedings
3. **Financial Sector Legislative Reforms Commission (FSLRC):** Similarly, to enable changes in the way financial regulations are made, the **Financial Sector Legislative Reforms Commission (FSLRC)**, set up by the Government of India, proposed the **Indian Financial Code**—a blueprint of a comprehensive law to create a reformed financial regulatory framework.
4. **Merger of FMC with SEBI:** There was **merger of the commodities regulator** (Forwards Market Commission) **with the securities market regulator** (Sebi)
5. **MPC:** the setting up of an **inflation targeting regime and a Monetary Policy Committee** of the RBI.

6. **Merger of State-owned Banks:** The Government's move to **merger state-owned banks** aims to cut operational costs and achieve global scale to support fresh investments, revive growth and meet the target to become a \$5 trillion economy in the next five years.
- Large banks will entail cost advantages by way of economies of scale such as **centralised back-office processing, elimination of branch overlap, eliminating redundancies** in administrative infrastructure, better manpower planning, optimum funds management, and savings in IT and other fixed costs.
 - Large banks will also be able to finance large projects on their own even while staying within the prudential lending norms imposed by the regulator.

Conclusion

In conclusion, there seems to be a consensus that India has not suffered as much as other countries and that the growth downturn was indeed no more than that falling far short of a recession. The recovery in India was also faster. However, increasing globalization and more integration also means greater exposure to uncertainty and external shocks. There is need for constant monitoring of Global as well as domestic events to predict and react to any of the crisis quickly. It is important that in addition of creating strong cushions the regulatory mechanisms must be on mark.