In the second half of 2007 the subprime crisis that emerged in the US housing mortgage market snowballed into a global financial crisis and economic crisis. During the course of 2008-09, the global financial landscape changed drastically, several large international financial institutions either fail or were structured with the support of very large government interventions in many countries or failed, to prevent the collapse.

Since mid-September 2008 the noteworthy deterioration in global financial conditions led to severe disruption in the short-term funding markets, sharp fall in equity prices, widening of risk spreads and inactivity in the markets for asset-backed securities. As a result, the strain on the financial institutions balance sheets increased, menacing the viability of the well-known financial entities in the world. The freezing up of credit markets necessitated unusual actions on the part of governments and central banks in countries across the world to alleviate the systemic risks posed by the enduring financial crisis.

To restore confidence and facilitate systematic working of markets, central banks have been reacting through both conventional and unconventional measures and there have been cases of organized policy actions by the central banks. The conventional measure of monetary easing has been accomplished through policy rate cuts which has taken the policy rate to almost zero as in the case of the US and to an unsurpassed low of 0.5 per cent as in the case of UK and 1.25 per cent in the Europe market. The other measures include large-scale provision of term-funding in local currency and dollar markets, lending by central banks to non-banks and increase of the range of adequate guarantee for receiving financial support from the central bank. Further steps have been taken to deal with concerned assets and provide liquidity through bank recapitalisation.

Besides reduction of the federal funds rate the important initiatives taken by the US Federal Reserve consist of accomplishing direct purchases of agency debt and agency mortgage-backed securities, enlargement of liquidity programmes to financial intermediaries and other central banks and beginning programmes in support of systemically vital market segments. The US government entities also undertook astonishing initiatives to support the financial market by pumping capital into the banking system and providing assurance on selected liabilities of depository institutions. Many foreign central banks and governments have been taken up similar steps. In spite of the host of measures taken in many countries, normalcy continues to avoid the international financial markets. This has further contributed to the sustained uncertainty and worsening of the world economic position. The financial markets need to be stabilized to achieve a turnaround in global growth conditions.

Financial stability can be achieved by restoring investor confidence. In this context, there is an utmost need to deal with concerned assets and recapitalise vital institutions. This entails significant contribution from governments for support of the financial sector. Concurrently, governments have been concentrating on the recession through growth stimulus packages, while the tax receipts are expected to decrease in the face of the economic downturn. The US government and the Federal Reserve have commenced programmes for systemically significant segments/ institutions of the financial market. The authorities are accomplishing severe stress tests on the major banks, and if they are found short of capital required under more severe scenarios, they could fill the gap by private financing or through fleeting capital buffers made obtainable by the government. The US Treasury, in union with the Federal Deposit Insurance Corporation and the Federal Reserve, has declared the details of a Public-Private Investment Programme which would use US$ 75-100 billion of Troubled Assets Relief Programme (TARP) capital and capital from private investors and seek to produce US$ 500 billion in purchasing power to buy legacy assets, with the potential to inflate to US$ 1 trillion over time.

Due to the inter-linkages in the global financial markets, the consequences of recession in the advanced economies are experienced in the emerging economies. Hence, there needs to be a greater co-operation and co-ordination amongst the policy-making bodies so as to restore confidence in the markets. In this view Financial Stability Board in its expanded report have extended their membership to many emerging market economies including India.

In mid-September 2008 the unforeseen effects of the international developments slobbered into the Indian financial markets. Since then the Reserve Bank, like most central banks, has taken many conventional and unconventional actions to augment the domestic and foreign exchange liquidity and address the supply constraint impacting the growth Impetus in the domestic economy. An important difference between the measures taken up by the Reserve Bank and other central banks is that the interface is still largely through the banking channel and even the actions aimed at addressing the liquidity and redemption requirements of mutual funds, non-banking financial companies (NBFCs) and housing finance companies are directed through the banks. No dilution of the collateral taken by the Reserve Bank is the. The collection of instruments existing allow for flexibility in the operation of Reserve Bank. Liquidity modulation through flexible use of a combination of instruments cushioned the impact of the international financial instability on domestic financial markets by absorbing excessive market pressures and ensuring orderly conditions. Thus, in September and October 2008 liquidity strains were apparent in India for a temporary period. The Indian financial markets are vigorous and working normally with no disturbance in the foreign exchange, money and government securities markets.

Even though organizations in most of the emerging economies did not have direct exposure to the toxic assets, these economies are suffering the consequences of the economic recession that has engrossed the advanced economies. during 2008-09 the emerging market economies observered capital flow reversals, sharp enlarging of spreads on sovereign and corporate debt and unexpected currency depreciations. Banks have reduced their lending to emerging economies as reflected in the near halving of the entire volume of international syndicated loan conveniences given to borrowers in emerging markets in the last quarter of 2008 as against the corresponding period of the previous year.

Though emerging market economies, counting India, do not have direct or important exposure to strained financial instruments or worried financial institutions, they are not immune to the unfavorable effects of the financial crisis. During the fourth quarter of 2008-09, a number of countries announced further measures for monetary easing, provision of liquidity and restructuring or recapitalisation of the financial system.

In mid-September 2008, the Indian financial markets came under pressure due to the unforeseen effects of the global crisis through the monetary, financial, real and confidence channels. In response, since September 16, 2008 the Reserve Bank initiated numerous actions to augment domestic and foreign exchange liquidity for proper performance of the domestic markets and sustaining financial stability. The Reserve Bank's monetary policy reaction to the global crisis imposing on India was to keep the domestic money and credit markets working normally and make certain that the liquidity stress did not activate solvency issues.

United States

➢ **Monetary Policy Easing**

- On December 16, 2008 the target range for federal funds rate was set between 0.00 and 0.25 per cent and since then it has remained unchanged.

➢ **Liquidity Provision**

- Through new channels such as the Term Auction Facility (TAF) Term funds continued to be auctioned.
- The set of eligible guarantee for loans extended by the Term Asset-Backed Securities Loan Facility (TALF) was extended to include four additional categories of asset-backed securities.
- The Primary Dealer Credit Facility (PDCF), the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF), the Commercial Paper Funding Facility (CPFF), the Money Market Investor Funding Facility (MMIFF) and the Term Securities Lending Facility (TSLF) are the five facilities which were extended up to October 30, 2009.
- Extension of the Temporary Money Market Funds Guarantee Program till September 18, 2009.
- Expansion of The set of institutions eligible to participate in the MMIFF. Several economic parameters of the MMIFF were adjusted so that it remained a viable source of back-up liquidity for money market investors even at very low levels of money market interest rates.
- In 2009 the Federal Reserve to purchase US$ 1.25 trillion of agency mortgage-backed securities and US$ 200 billion of agency debt.
- By September 2009 the Federal Reserve to purchase US$ 300 billion of longer-term Treasury securities.
- To generate purchasing power of up to US$ 1 trillion to buy legacy assets a Public-Private Investment Programme was established.
- In March 2009 restructuring of Government's financial support to the American International Group (AIG) was announced.

➢ **Recapitalization of the Financial System**

- To provide a package of guarantees, liquidity access and capital the US government entered into a contract with Bank of America.
- The US Treasury to contribute in Citigroup's exchange offering by converting a part of its preferred security to common equity alongside the other preferred holders.
- Community Development Financial Institutions (CDFI) Fund declared to award nearly US$ 100 million in grants and US$ 3 billion in additional tax credit authority to support community-based financial institutions such as loan funds, banks, credit unions, venture capital firms and other financing entities.
- Since October 2008 total Capital Purchase Program (CPP) investment of US$ 195.3 billion in 359 institutions.
- For the major US banking institutions Capital Assistance Programme were announced.

➢ **Other Measures**

- A policy was declared to avoid preventable foreclosures on certain residential mortgage assets held, owned or controlled by a Federal Reserve Bank.
- Application of the ICE trust was approved to provide central counterparty services for certain CDS contracts.

United Kingdom

➢ **Monetary Policy Easing**

- During January-March, 2009 Official bank rate was cut thrice by 50 basis points (bps) to 0.5 per cent.

- **Liquidity Provision**

- Asset Purchase Facility to buy gilts, commercial paper and corporate bonds from the secondary market using central bank reserves amounting to £ 75 billion.
- Up to December 31, 2009 extension of the drawdown window of the Credit Guarantee Scheme (CGS).
- Extension of the term of the Bank of England's permanent discount window facility to 364 days for an additional fee of 25 bps.

- **Financial Restructuring**

- Investment in RBS by the UK Treasury's preference share was converted to ordinary shares.
- The Financial System was recapitalized.
- Asset Protection Scheme, objective of which is to remove ambiguity about the past value of banks' investments, to clean up banks' balance sheets and to facilitate them to restructure and reorganize their operations and raise lending in the economy. This scheme is offered for a fee on eligible assets of select participating institutions. Agreements are signed with Lloyds Banking Group and Royal Bank of Scotland.

- **Other Measures**

- The Banking Act 2009, which supports the UK's constitutional structure for financial firmness and depositor protection, was enacted.

Other countries

- **Monetary Policy Easing**

- In January and March 2009 ECB slashed its interest rates on the major refinancing operations by 50 bps each and by 25 bps in April 2009 to 1.25 per cent, on the marginal lending facility by 50 bps in March 2009 and by 25 bps in April 2009 to 2.25 per cent and on deposit facility by 100 bps in January, 50 bps in March 2009 and 25 bps in April 2009 to 0.25 per cent.
- During January-March 2009 Central Bank of the Republic of Turkey lowered its overnight borrowing rate by 450 bps.
- South Korea abridged its monetary policy base rate by 50 bps each in January and February 2009 to 2.0 per cent as on February 12, 2009.

- **Liquidity Provision**

- Japan issued fresh instructions on eligible collateral for credit extended by banks.
- Bank of Japan stated terms and conditions for the outright purchase of corporate financing instruments such as CP and corporate bonds.
- The frequency and duration of special funds supplying operations were increased. Most other provisions taken for attaining financial stability, that were set to terminate in April 2009, were extended up to at least September 2009.

- **Recapitalization of the Financial System**

- Germany extended a bailout package to Commercial bank to backstop losses at newly acquired Dresdner Bank and took a 25 per cent holding in the combined entity.
- Control of the Anglo Irish Bank was taken up by the Ireland.
- The Dutch authorities approved ING Group a backup facility guaranteeing part of the bank's securitized mortgage portfolio worth US$ 35 billion.

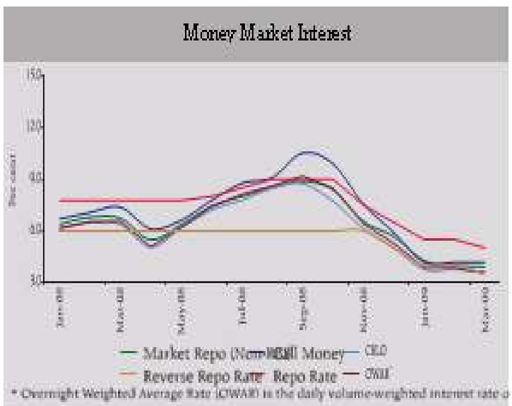
- **Other Measures**

- To address constant pressures in global US dollar funding markets, till October 30, 2009 the temporary reciprocal currency arrangements (swap lines) between the Federal Reserve and other central banks were extended.

India

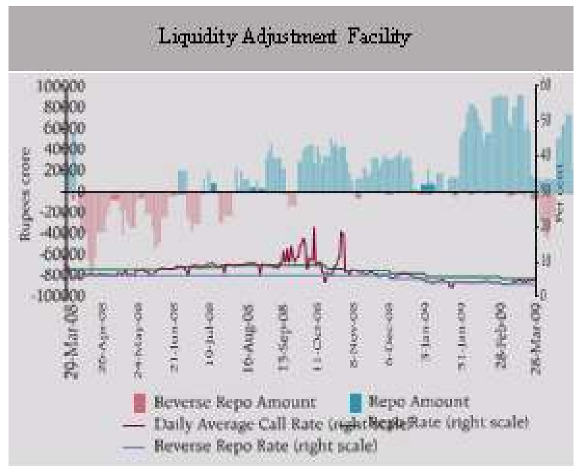
➢ **Monetary measures**

- Since October 20, 2008 cut in the repo rate under the LAF by a cumulative 400 basis points from 9.0 to 5.0 per cent.
- Since December 8, 2008 cut in the reverse repo rate by a cumulative 250 basis points from 6.0 to 3.5 per cent.



➢ **Rupee Liquidity/ Credit Delivery**

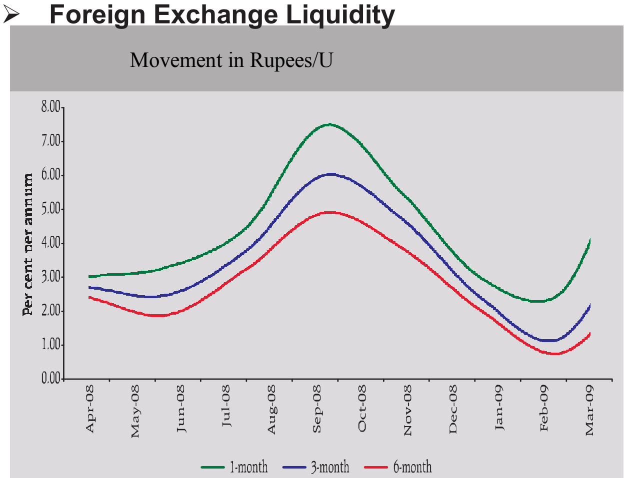
- Since October 11, 2008 cut in the CRR by a cumulative 400 basis points of NDTL from 9.0 per cent to 5.0 per cent.
- Under Section 17(3B) of the Reserve Bank of India Act, 1934 introduction of a special refinance facility under which all SCBs (excluding RRBs) are provided refinance from the Reserve Bank equivalent to up to 1.0 per cent of each bank's NDTL as on October 24, 2008 at the LAF repo rate up to a maximum period of 90 days. Banks are motivated to use this facility for the purpose of expanding finance to micro and small enterprises. The facility will continue up to September 30, 2009.
- Institution of a term repo facility for an amount Rs.60,000 crore under the LAF to facilitate banks to ease liquidity stress faced mutual funds, NBFCs and housing finance companies (HFCs) with allied SLR exemption of 1.5 per cent of by NDTL. This facility is available up to September 30, 2009 (banks can benefit of this facility either on an incremental or on an overturn basis within their entitlement of up to 1.5 per cent of NDTL).



- Cutback in statutory liquidity ratio (SLR) by one percentage point from 25 to 24 per cent of NDTL with effect from the fortnight beginning November 8, 2008.
- Introduction of a system to buyback dated securities issued under the MSS so as to offer another opportunity for injecting liquidity of a more resilient nature into the system.
- Extension of the period of entitlement of the first portion of pre-shipment and post-shipment rupee export credit, by 90 days each, with effect from November 15, 2008 and December 1, 2008, respectively.
- Increase in the eligible perimeter of the ECR facility for scheduled banks (excluding RRBs) from 15 per cent to 50 per cent of the exceptional export credit eligible for refinance at the prevailing repo rate under the LAF.
- In March 2009 Amounts owed, in advance, from SCBs for contribution to the SIDBI and the NHB to the extent of Rs.2, 000 crore and Rs.1, 000 crore, respectively, against banks' estimated deficit in important sector lending.

- Diminution in the provisioning requirements for all types of standard assets including outstanding credit card.
- Receivables, loans and advances qualifying as capital market exposure and non- deposit taking systemically important NBFCs) to a uniform level of 0.40 per cent except in case of direct advances to agricultural and SME sector which shall continue to attract provisioning of 0.25 per cent, as hitherto.
- Downward reconsideration of risk weights on banks' exposures to certain sectors, which had been increased counter-cyclically earlier. All unrated claims on corporate and claims secured by commercial real estate attract a uniform risk weight of 100 per cent as against the risk weight of 150 per cent prescribed earlier. Claims on rated as well as unrated non-deposit taking systemically important non-banking financial companies (NBFC-ND-SI) are uniformly risk weighted at 100 per cent.
- Up to March 2010 in order to offer liquidity support to housing, export and MSE sectors, the Reserve Bank provided a refinance facility of Rs.4,000 crore to the NHB, Rs.5,000 crore to the EXIM Bank and Rs. 7,000 core to the SIDBI.
- For more effective liquidity management, the Reserve Bank widened the scope of OMO by including purchases of government securities through an auction- based mechanism in addition to operations through NDS-OM.

➢ **Foreign Exchange Liquidity**



- To continue selling foreign exchange (US dollars) through agent banks Exchange to augment supply in the domestic foreign exchange market or intervene Liquidity directly to meet any demand-supply gaps.
- To institute special market operations to meet the foreign exchange requirements of public sector oil marketing companies against oil bonds.
- The ceiling rate on export credit in foreign currency augmented to LIBOR plus 350 basis points subject to banks not imposing any other charges.
- Authorised Dealer (AD) category - I banks allowed to borrow funds from their head office, overseas branches and correspondents and overdrafts in nostro accounts up to a limit of 50 per cent of their unimpaired Tier 1 capital as at the close of the previous quarter or US$ 10 million, whichever was higher, as against the earlier limit of 25 per cent.
- As a temporary measure, HFCs registered with the NHB were allowed to raise short-term foreign currency borrowings under the approval route, subject to compliance with prudential norms laid down by the NHB.
- A forex swap facility with tenure up to three months to Indian public and private sector banks having overseas operations in order to provide them flexibility in managing their short term funding requirements at their overseas offices. The facility is available up to March 31, 2010.
- Cumulative increase in the interest rate ceilings on FCNR (B) and NR(E)RA
- Term deposits by 175 basis points each since September 16, 2008.
- Proposals from Indian companies to prematurely buyback their FCCBs to be considered under the approval or automatic route, depending on the extent of discount of the FCCBs and the source of funds, subject to compliance with certain stipulated conditions. (The buyback should be financed by the company's foreign currency resources held in India or abroad and/or out of fresh external commercial borrowing (ECB) raised in conformity with the current

norms for ECBs). Extension of FCCBs also to be permitted at the current all-in-cost for the relative maturity.

- **ECB Norms**

- The all-in-cost ceiling for ECBs of average maturity period of three to five years and of maturity period over five years was enhanced to 300 basis points above LIBOR and 500 basis points above LIBOR, respectively. The all-in-cost ceiling for trade credit less than three years was enhanced to 6-month LIBOR plus 200 basis points.
- ECBs up to US$ 500 million per borrower per financial year were permitted for rupee/foreign currency expenditure for permissible end-uses under the automatic route.
- The infrastructure sector for availing ECB was extended to contain mining, exploration and refinery sectors. Payment for obtaining license/permit for 3G spectrum by telecom companies was classified as eligible end-use for the purpose of ECB.
- The requirement of minimum average maturity period of 7 years for ECB of more than US$ 100 million for rupee capital expenditure by the borrowers in infrastructure sector was bestowed with.
- Borrowers were approved the flexibility to keep their ECB proceeds offshore or keep it with the overseas branches / subsidiaries of Indian banks abroad or to remit these funds to India for credit to their rupee accounts with AD category- I banks in India, pending utilisation for permissible end-uses.
- NBFCs exclusively involved in financing of the infrastructure sector were allowed to avail of ECBs under the sanction route from multilateral / regional financial institutions and Government-owned development financial institutions for on-lending to the borrowers in the infrastructure sector, subject to conformance with certain conditions.

** Source: Websites of respective central banks and finance ministries.

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