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## **State of the Indian Economy**

The **Economy of India** is the eleventh largest economy in the world by nominal GDP and the fourth largest by purchasing power parity (PPP). The economy is on the path of recovery in 2009-10. As per the latest information (Advance Estimates) of National Income for 2009-10 (at constant 2004-2005 prices), released by the Central Statistical Organization the growth of Gross Domestic Product (GDP) at factor cost is estimated at 7.2% in 2009-10, with agriculture & allied activities growing at (-) 0.2%, industry at 8.2% and services sector at 8.7%. The corresponding growth in GDP in 2008-09 was 6.7%, with agriculture and allied sector, industry and services growing at 1.6%, 3.9% and 9.8%, respectively. The negative growth of the agriculture sector 2009 – 10 is primarily due to the failure of the monsoons in that period.

As per the Quarterly Estimates of GDP for 2009-10, there has been broad based recovery in economic growth during 2009-10 as compared to 2008-09. The estimated GDP growth in the first second and third quarters of 2009-10 is at 6.1%, 7.9% and 6.0% respectively, as compared to 7.6%, 7.5% and 6.2% during the corresponding period of 2008-09.

Data on the savings and investment is available only up to 2008-09. The saving rate as %age of GDP at current market prices was estimated to be 32.5% in 2008-09 as compared to 36.4% in 2007-08 while the gross domestic capital formation was 34.9% in 2008-09 as compared to 37.7% in 2007-08.

## **Agriculture**

The year 2008-09 witnessed an all time high production of food grains at 234.47 million tonnes against the target of 233.00 million tonnes. The Kharif production was 118.14 million tonnes and Rabi production was 116.33 million tonnes respectively. During South-West monsoon of 2009 (1<sup>st</sup> June to 30<sup>th</sup> September), the country as a whole received 23% less rainfall of long period average (LPA). Twenty-three out of thirty-six meteorological subdivisions recorded deficient rainfall during this period. The deficiency in South West monsoon in 2009 has resulted in a shortfall in the area sown during 2009-10. The 2010 monsoons are within the long-term average and we expect good sowings. We expect the monsoons in the closing periods to be within normal ranges thus giving a fillip to agricultural production in the current fiscal.

## **Industry**

During 2009-10(April-December), as per the data on Index of Industrial Production (IIP), the industrial sector grew at 8.6% compared to 3.6% during the previous year. The increase in growth occurred in all the three broad sectors –manufacturing, mining and electricity. During 2009-10 (April-December), the manufacturing sector, mining and electricity sectors grew at a rate of 9.0%, 8.5% and 5.8% respectively against the corresponding figures of 3.6%, 3.2% and 2.7% in the previous year. Among the use-based industry groups - basic goods, capital goods, intermediate goods and consumer durables recorded increase in growth during 2009-10 (April-December). The consumer non-durables showed decline in growth, compared to the previous year. The consumer durables showed a growth of 24.4% followed by the intermediate goods 12.5%, capital goods 11.1% and basic goods by 6.0% during 2009-10 (April-December), compared to the corresponding figures of 4.1%, (-)1.7%, 8.2% and 3.4% during 2008-09 (April-December).

The growth of consumer non-durables slowed down to 1.5% during 2009-10 (April-December) compared to a growth of 6.7% during the April-December 2008-09. At the disaggregated level, three out of the 17 two-digit industrial groups – food products, beverages & tobacco, jute and other vegetable fibre textiles recorded a negative growth during 2009-10 (April-December).

Out of the remaining 14 industry groups, four groups recorded growth rates less than 5%. Five groups registered growth rates between 5% to 10% and the remaining five industry groups namely wool, silk and man-made fibre textiles, basic chemicals and chemical products, rubber, plastic, petroleum and coal products, machinery & equipment, transport equipment and parts recorded growth rate of 10%.

## **Infrastructure**

Infrastructure generates considerable backward and forward linkages, and hence its development is central to the growth of the other sectors of the economy. The overall index of six core industries having a direct bearing on infrastructure registered a growth of 4.8% during 2009-10 (April-December) which is higher than 3.2% growth registered during the previous year. Three out of the six core sectors—crude oil, petroleum refinery products and coal recorded lower rates of growth of (-)1.1%, (-)1.0% and 8.3% respectively during April-December, 2009-10 as compared to (-)0.5, 3.7% and 9.9% during April-December 2008-09. The growth in electricity, cement and finished steel was 6.0%, 11.0% and 3.6% respectively during 2009-10 (April-December).

## **Inflation**

Inflation, measured by variations in the wholesale price index (WPI) on a year-on-year basis was 8.6% in January 2010 as against 5.0% in January 2009. Average inflation (Apr-Jan) is assessed at 2.4% (provisional) in 2009-10 compared to 9.7% for the same period in 2008-09. On financial year basis, inflation since March recorded 8.9% in January 2010 compared to 1.5% in January 2009.

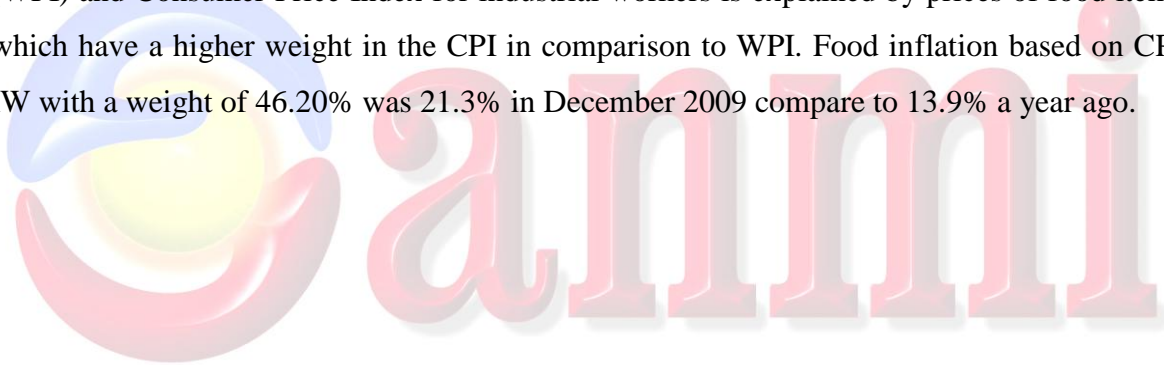
At a disaggregated level, prices of primary articles (with a weight of 22.02% in the WPI basket) and manufactured products (with a weight of 63.75%) increased by 14.5% and 6.6%, respectively, in January 2010 as compared with an increase of 10.7% and 5.3% a year ago. Inflation in the composite food index (with a weight of 25.43%) was 19.1% in January 2010 compared to 9.5% in January; 2009. The composite non-food inflation within manufactured group of WPI (with a weight of 53.72%) was 3.7% in January 2010, which is lower than 5.0% recorded last year.

Annual inflation of the 'fuel, power, light and lubricants' group (with a weight of 14.23%) was 6.9% in January 2010 as against (-)1.7% a year ago. Administered mineral oils (with a weight of 5.44%) recorded (-) 1.4% in January, 2010, as against 6.7% inflation in January 2009. Mineral oils other than administered items (with a weight of 1.55%) registered inflation of 51.3% in January 2010, which is significantly higher than (-)27.8% in the same month last year. This is a result of increase in the international crude oil prices, from an average of US\$ 43.9/bbl in January 2009, to US\$ 77.1/bbl in January 2010.

Inflation, based on the consumer price index (CPI) for industrial workers increased to 16.2% on a year-on-year basis in January 2010 compared to 10.4% a year ago. In respect of CPI-UNME, CPI-AL and CPI-RL, inflation ranged 8.8 to 17.6% during financial year 2009-10, which is higher than range of 6.8% to 11.6% during 2008-09.

An analysis of the last four years suggests that WPI inflation and CPI inflation has generally moved in tandem and it was so until April 2007. Thereafter, inflation measured in WPI and CPI showed some divergence. Moreover, the divergence in the recent period has been unusually high, reflecting the volatility in commodity prices that have a higher weight in WPI.

A major portion of the differences between inflation rates based on the Wholesale Price Index (WPI) and Consumer Price Index for industrial workers is explained by prices of food items, which have a higher weight in the CPI in comparison to WPI. Food inflation based on CPI-IW with a weight of 46.20% was 21.3% in December 2009 compare to 13.9% a year ago.



## Foreign Exchange Reserves

India's foreign exchange reserves comprise Foreign Currency Assets (FCA), Gold, SDRs and Reserve Tranche Position (RTP) in the IMF. Beginning from a low level of US\$ 5.8 billion at end-March 1991, India's foreign exchange reserves increased to peak of US\$ 314.6 billion at end-May 2008. The reserves declined thereafter to US\$ 252.0 billion at the end of March 2009. The level of foreign exchange reserves stood at US\$ 283.5 billion at the end December 2009.

In 2009-10, the Reserve Bank of India has concluded the purchase of 200 metric tonnes of gold from the International Monetary Fund (IMF), under the IMF's limited gold sales programme at the cost of US\$ 6.7 billion in the month of November 2009. Further, a general allocation of SDR 3,082 million (equivalent to US\$ 4,821 million) and a special allocation of SDR 214.6 million (equivalent to US\$ 340 million) were allocated to India by the IMF on August 28, 2009 and September 9, 2009, respectively, which has resulted in an increase in the India's foreign exchange reserves by US\$ 5.2 billion.

Foreign Exchange Reserves					
Item	As on Aug 6,2010	Variation over			
		Week	End-March 2010	End-December 2009	Year
	USD Mn.	USD Mn.	USD Mn.	USD Mn.	USD Mn.
1	2	3	4	5	6
Total Reserves	2,87,356	3,173	8,299	3,886	16,117
(a) Foreign Currency Assets +	2,61,079	*2,528	6,394	2,496	860
(b) Gold \$	19,278	-	1,292	986	9,607
(c) SDRs @	5,041	35	35	-128	5,040
(d) Reserve Position in the IMF**	1,958	610	578	532	610
+: Excludes USD 250 million invested in foreign currency denominated bonds issued by IIFC (UK).					
*: Foreign currency assets expressed in USD terms include the effect of appreciation/depreciation of non-US currencies (such as Euro, Sterling, Yen) held in reserves.					
**: Reserve Position in the International Monetary Fund (IMF), i.e., Reserve Tranche Position (RTP) which was shown as a memo item from May 23,2003 to March 26,2004 has been included in the reserves from the week ended April2, 2004 in keeping with the international best practice.					
@: Includes SDR USD 4,883 million allocated under general allocation and SDR USD 340 million allocated under special allocation by IMF done August 28, 2009 and September, 2009, respectively.					
\$: Includes USD 6,699 million reflecting the purchase of 200 metric tonnes of gold from IMF on November 3, 2009.					

## **Exchange Rate**

In the fiscal 2008-09, the Rupee depreciated against major international currencies, except pound sterling, due to deceleration in capital flows and widening trade deficit. The annual average exchange rate was Rs 45.99 per US dollar indicating depreciation by 12.5% in 2008-09 over the annual average exchange rate in 2007-08.

The Rupee depreciation during 2008-09 reflected mainly the supply-demand imbalance in the foreign exchange market, which widened significantly during September-October 2008, as fallout of the global crisis. After the fall of the Lehman Brothers in September 2008, the decline in the Rupee became more pronounced.

This led RBI to augment supply of US dollars to stabilize the Rupee in the foreign exchange market. In the fiscal 2009-10, with the signs of recovery and return of foreign institutional investments (FIIs) flows after March 2009, Rupee has again been strengthening against US dollar. The month-to-month movement of exchange rate in the year 2009-10 indicated that the Rupee appreciated against the US dollar within the range of 0.3% to 3.7% during April 2009 to December 2009, except July, September and December 2009, when Rupee depreciated by 1.5%, 0.3% and 0.13% respectively.

On month-on-month basis, the average monthly exchange rate of the Rupee strengthened to Rs 50.03 per US dollar in April 2009 vis-a-vis the average rate of Rs 51.23 per US dollar during March 2009, indicating 2.4% appreciation.

However, during the month of December 2009, the average monthly exchange rate weakened to Rs 46.63 per US dollar, reflecting marginal depreciation of 0.13% over average exchange rate of Rs 46.57 per US dollar during November 2009, mainly on account of strengthening of US dollar in the international market.

## Social Sector Development

Expenditure of the Central Government on social services including rural development increased from Rs.46,409 crore in 2002-03 to Rs.1,98,677 crore in 2009-10 (BE). The total expenditure on social services of the general government (combined Centre and State Governments) as a percentage of GDP also increased from 5.33% in 2004-05 to 7.23% in 2009-10 (BE).

## ECONOMIC PERFORMANCE AND GROWTH OUTLOOK

1. The performance of the Indian economy in 2009/10 greatly exceeded expectations. In October 2009, in the shadow of the weak South West (SW) monsoon, which had a record 24% shortfall in rainfall, the Council had projected a 6.5% growth for the Indian economy in its Economic Outlook. This was built on the expectation that the farm sector would see a contraction of 2% and the non-farm sector an expansion of 8.2%.

By the time of the Review in February 2010, it had become clear that the Indian farm sector was much more resilient to shortfall in precipitation than previously anticipated. The Council had felt that the *Advance Estimate* released in early February was fairly accurate, with a likelihood that on account of strong performance in manufacturing the aggregate growth rate may be revised marginally upwards.

The *Revised Estimate* released by the Central Statistical Organization (CSO) at the end of May 2010 has indeed revised upward its estimate of growth for 2009/10 from 7.2% to 7.4%. In large measure, this was due to an upward revision of growth in the industrial sector from 8.6% to 9.3% and to a lesser extent, a revision in farm GDP growth from -0.2% to +0.2%.

2. The Council's February 2010 Review had also projected likely growth in 2010/11 and 2011/12 at 8.2 and 9.0% respectively. It had assessed that the farm sector would show a strong rebound in 2010/11, of course, subject to a normal SW monsoon, and that this growth would be in evidence in 2012.



3. In the current Economic Outlook for 2010/11, the Council has broadly stayed with these assessments except that it has projected slightly stronger growth in the industrial sector, in both 2010/11 and 2011/12, and slightly lower growth for the services sector in 2011/12. It is the assessment of the Council that the Indian economy would grow at 8.5% in 2010/11 and 9.0% in 2011/12. This assessment is on the expectation of a normal SW monsoon in 2010/11. Current indications appear to endorse the Meteorological Department's assessment that the current year (2010/11) will have a normal monsoon.
4. The global economic and financial situation is recovering slowly. However, the aftermath of the financial crisis of 2008 and 2009 has left the advanced economies of the Western world with serious structural deficiencies in their financial sector, which will take some time to repair.

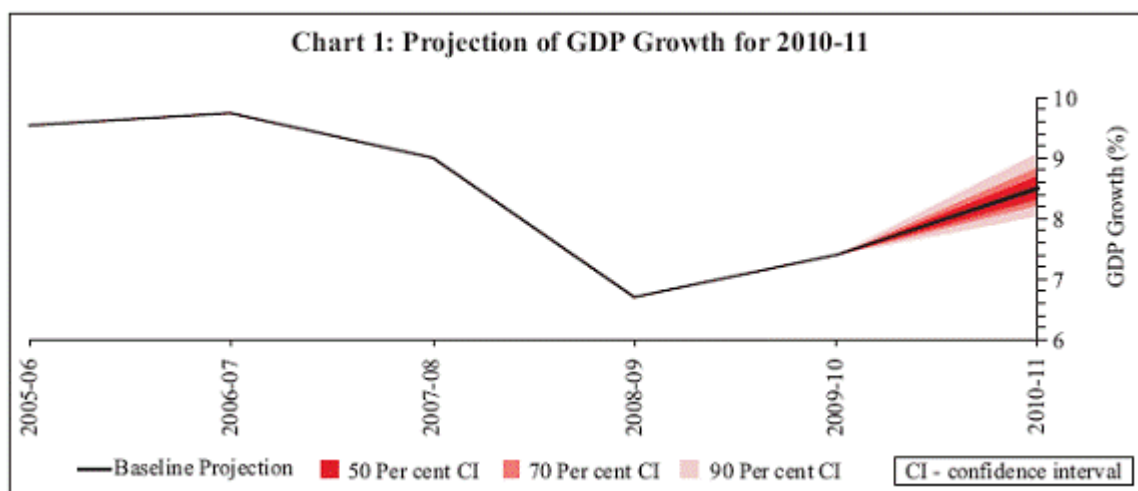
The large monetary and fiscal stimulus that these economies used in response to the financial and economic crises came on top of already enlarged fiscal deficits and high debt ratios. It may be recollected that even before the crisis, the Euro-zone members were having great difficulty in abiding by the conditions of the Stability Pact (Maastricht Treaty) and the US was running a deficit that was far higher than its historical average. In consequence, the order of deficits and its implications on governmental debt are *prima facie* of concern. The developments in Greece, where the government had grossly understated the extent of its fiscal stress, combined with the reality of high deficits and public debt throughout Europe, too bring the issue of debt, and fiscal sustainability and solvency of developed economies into very sharp focus.

GDP Growth – Actual & Projected							
	2005/06	2006/07	2007/08	2008/09 QE	2009/10 Rev	2010/11 <i>f</i>	2011/12 <i>f</i>
Year – On – Year Growth Rates							
1. Agriculture & Allied activities	5.2	3.7	4.7	1.6	0.2	4.5	4.0
2. Mining & Quarrying	1.3	8.7	3.9	1.6	10.6	8.0	8.0
3. Manufacturing	9.6	14.9	10.3	3.2	10.8	10.0	10.5
4. Electricity, Gas & Water Supply	6.6	10.0	8.5	3.9	6.5	7.5	9.0
5. Construction	12.4	10.6	10.0	5.9	6.5	10.0	11.0
6. Trade Hotels, Transport, Storage & Communication	12.1	11.7	10.7	7.6	9.3	10.0	10.0
7. Finance, insurance, real estate & business services	12.8	14.5	13.2	10.1	9.7	9.5	10.5
8. Community & personal services	7.6	2.6	6.7	13.9	5.6	6.0	7.5
<b>9. Gross Domestic Product at factor cost</b>	<b>9.5</b>	<b>9.7</b>	<b>9.2</b>	<b>6.7</b>	<b>7.4</b>	<b>8.5</b>	<b>9.0</b>
10. Industry(2+3+4+5)	9.3	12.7	9.5	3.9	9.3	9.7	10.3
11. Services (6+7+8)	11.1	10.2	10.5	9.8	8.5	8.9	9.6
12. Non-agriculture (9-1)	10.5	11.0	10.2	7.7	8.8	9.2	9.8
<b>13. GDP (factor cost) per capita</b>	<b>7.8</b>	<b>8.1</b>	<b>7.7</b>	<b>5.2</b>	<b>6.2</b>	<b>7.0</b>	<b>7.5</b>
Some Magnitudes							
14. GDP at factor cost – 2004/05 prices in ` lakh crore (or trillion)	32.5	35.6	38.9	41.5	44.6	48.4	52.8
15. GDP market & current prices in ` lakh (or trillion)	37.1	42.8	49.5	55.7	62.3	70.3	79.2
16. GDP market & current prices in USD Billion	837	947	1,231	1,222	1,317	1,529	1,722
17. Population in Million	1,106	1,122	1,138	1,154	1,170	1,186	1,203
18. GDP market prices per capita current prices	33,512	38,182	43,479	48,305	53,258	59,305	65,867
19. GDP market prices per capita in current USD	757	844	1,082	1,059	1,126	1,289	1,432

Note: QE - refers to the Quick Estimates for National Income released on 29 Jan 2010.

Rev - refers to Revised Estimates for National Income released on 31 May 2010.

*f* - forecast made by Prime Ministers Advisory Council.



5. The financing of these large deficits was greatly facilitated by the extraordinarily easy monetary conditions that were brought into force, again in response to the crisis. The governments of the European Union have responded to this over-extended fiscal situation and the crisis of confidence, generated as a consequence, with initiatives to contain their deficits. This is always hard to do when the economy is not growing, as is the condition in these countries today. The difficulty is compounded by the fact that tax rates are already very high in these economies and reducing expenditures is always very difficult. The US, while recognizing the need for demonstrating a commitment to fiscal sustainability, has so far declined to take any immediate measures to reduce its deficits. This has important implications for monetary policy, since without this support it may be hard to finance the level of deficits that the US has today.
  
6. These are unsettling conditions for business with an embedded potential for causing great volatility in financial markets. The current year (2010) has seen a lot of such volatility, which is negative for business confidence and for investment. This is likely to persist for some time. In this situation, it is hard to visualize strong economic growth in the advanced economies in 2010 and to a large extent in 2011.
  
7. This has implications for the strategy to preserve conditions that will enable India to return to the 9% growth trajectory. In the Council's view, this is eminently feasible, but adequate steps must be taken to offset the impact of negative global conditions. Therefore, it is imperative that public policy promotes an environment of

strengthening business confidence, and facilitates increased investment and consolidation of growth in India. These issues are discussed at greater length in subsequent chapters.

8. Since October 2008, the Indian economy has been experiencing very high inflation in food prices. While initially this high inflation was confined to only food articles – both primary and manufactured – once economic recovery began to stabilize it has, not unexpectedly, manifested itself in the prices of manufactured goods. The headline inflation rate rose sharply from less than 1% in September 2009 to over 8% by December 2009 and to over 10% in February and March 2010.

The trend has continued into the current financial year with the provisional headline rate for May 2010 at over 10%, and the likelihood that the final estimates may be somewhat higher. Inflation in manufactured goods also jumped from less than 1% in September 2009 to over 5% in December 2009 and 7.4% in March 2010.

In April and May of the current fiscal year, manufactured goods inflation continued to run at very high levels of between 6% and 8%. Further, while it is a fact that a large part of the increase in manufactured goods inflation in the last few months of 2009/10 was because of manufactured food articles, especially sugar, but by March 2010, and even more so, in April and May, this was no longer true.

The inflation rate in manufactured goods, *excluding* manufactured food articles, rose from (–) 2.3% in September 2009 to 5.4% in March 2010 and 6.6% in May 2010. Inflation reflected in Consumer Price Indices has been running in double-digit figures. This is a very difficult situation.

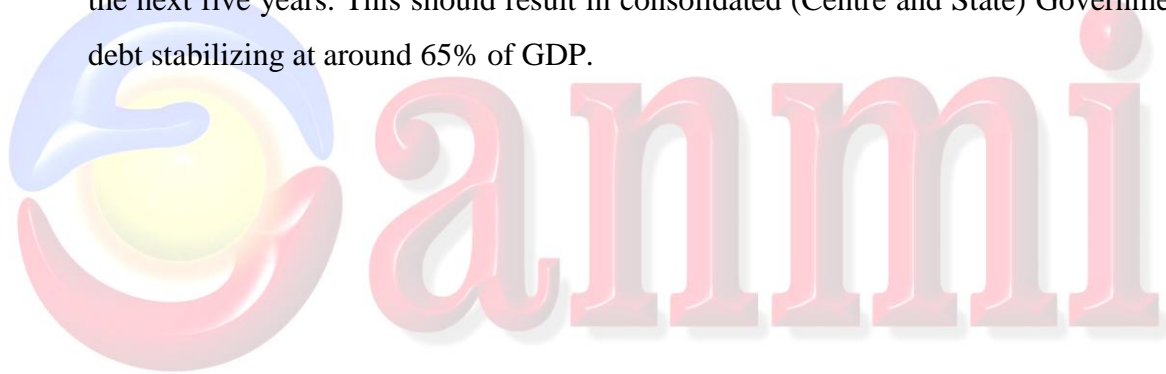
First, such high rates of inflation undermine broad macroeconomic stability and therefore the longer-term prospects of high economic growth. Second, and perhaps more importantly, it is extremely iniquitous, insofar as it reduces the real income of wage earners and the weaker sections of society in general. It is imperative to adopt necessary macroeconomic measures to rein in inflation, so that both long-term economic stability and the objective of inclusive growth are properly served.

9. The external payments situation is comfortable. Merchandise exports, as well as software exports, have in fact fared slightly better in 2009/10 than expected. Merchandise imports have also been larger than previously expected, reflecting the underlying strength of domestic demand recovery. Capital flows have been comparatively modest and the overall balance-of-payments (BoP) surplus has been quite small and lower than what the Council had expected previously. The recently released BoP figures for 2009/10 report a Current Account Deficit (CAD) of 2.9% of GDP, which is significantly larger than the 2.2% of GDP anticipated by the Council in February 2010. It also reports an overall BoP surplus of \$13.4 billion, which is lower than the Council's assessment in February of \$17.6 billion. The higher than expected CAD stems mostly from a lower reported net positive balance for invisible earnings and a larger BoP merchandise trade deficit. It may be noted that the CAD for the first half of 2009/10 has been revised downward in the BoP statement for the full year. The Council feels that like other statistical statements, there will be revision of the provisional BoP statement, which will see the CAD for 2009/10 come down to around \$33 billion or 2.5% of GDP.
10. In previous reports, the Council has not published projections of balance of payments, but in this report, we are doing so for 2010/11, as well as 2011/12. It must be noted that these projections are closer to the ground on the current account side, since a large part of capital flows are hard to project within a defined time frame and thus the variability is significant. The Council's expectation is that relatively weak global conditions will continue to limit export growth.

However, strong domestic recovery will see the trend of faster increase in merchandise imports continue. As a result, the current account deficit will be larger in the current year and as well as in the next. Although the projected figures of 2.7% and 2.9% of GDP for this year and the next respectively are higher than the previously considered "safe" level of 2% of GDP, it is not a matter of concern. This is because capital flows are expected to be more than adequate to finance this current account deficit. Moreover, today we have very significant foreign exchange reserves. It is also the Council's assessment that any surprises on the current account deficits will be on

the lower side, i.e. the likelihood of exports of goods and services doing better than estimated is greater than the likelihood of the trade deficit being larger than projected.

**11.** We have embarked on fiscal consolidation quite early in our recovery (Budget presented in July 2009) and that, together with the fact that Government wisely did not go overboard on the expenditure side in its stimulus programme, gives us a head start in fiscal consolidation compared to other major economies in the world. However, significant challenges remain, particularly, on the issue of subsidies and its better targeting and improved efficiency of expenditure programmes. Government is also committed to introduce the GST in 2011 and that would usher in significant efficiency in the tax regime. In the Council's assessment, it is eminently feasible for Government to meet the fiscal consolidation roadmap set out by the Thirteenth Finance Commission and return to an overall fiscal deficit of around 6% of GDP over the next five years. This should result in consolidated (Centre and State) Government debt stabilizing at around 65% of GDP.



## **An Overview of Indian Securities Markets**

Since the inception of online trading in 1992, National Stock Exchange of India has been at the vanguard of change in the Indian securities market. This period has seen remarkable changes in Markets, from raising and trading of capital to clearing and settlement systems of transactions.

The market has grown in scope and scale in a way that could not have been imagined at the time. Average daily trading volumes have jumped from Rs. 17 crore in 1994-95 at the NSE Cash Market segment to Rs.11,325 crore in 2008-09. Similarly, market capitalization of listed Indian firms went up from Rs.363,350 crore at the end of March 1995 to Rs.2,896,194 crore at end March 2009. Indian equity markets are today among the most deep and vibrant markets in the world.

The year 2008-09 saw the launch of new and important products for the securities market. Introduction of Mini Nifty Futures and Options contracts on S&P CNX Nifty during the year has given retail investors an increased ability to participate in index futures and options trading. NSE also started publishing the first volatility index in the country India VIX\*<sup>1</sup>.

Market participants now have an important tool to assess volatility and create trading strategies to exploit volatility movements.

This year also saw a watershed in the Indian currency market in the form of a currency futures contract at both the NSE as well as the MCX-Sx with the USDINR pair. Other significant developments include Long term Options Contracts on S&P CNX Nifty, Short selling and Securities Lending and Borrowing Scheme, Direct Market Access (DMA), Futures and Options contracts on S&P CNX Defty index and the NSE E-Bids for Debt Segment. Further NSE also ventured into a new segment by promoting a Power Exchange (Power Exchange India Ltd -PXIL) along with NCDEX. Other exchanges too have initiated similar progressive activity.

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<sup>1</sup>\* "VIX" is a trademark of Chicago Board Options Exchange, Incorporated ("CBOE") and Standard & Poor's has granted a licence to NSE, with permission from CBOE, to use such mark in the name of the India VIX and for purposes relating to the India VIX.

During the period 2008-09, the Indian securities market also witnessed a slowdown, in line with global scenario. The resource mobilization through primary market was Rs.6,588,920 million (US \$ 129,320 million) crore down by 13.80% in 2008-09 from Rs.5,789,720 (US \$ 144,852) million in 2007-08. In all 21 IPOs came to the market compared with 85 in 2007-08. Due to slack in liquidity conditions, the resources raised by India Inc. through euro issues also saw a sharp fall. In the secondary market, all stocks saw major correction in their prices. Even redemptions by mutual funds increased on a large scale and foreign institutional investors pulled out money from the Indian markets.

### **Key strengths of the Indian Securities Markets**

The key strengths of the Indian capital markets include a fully automated trading system on all stock exchanges, a wide range of products, an integrated platform for trading in both cash and derivatives, and a nationwide network for trading in a variety of securities. The securities markets in India have made enormous progress in developing sophisticated instruments and modern market mechanisms.

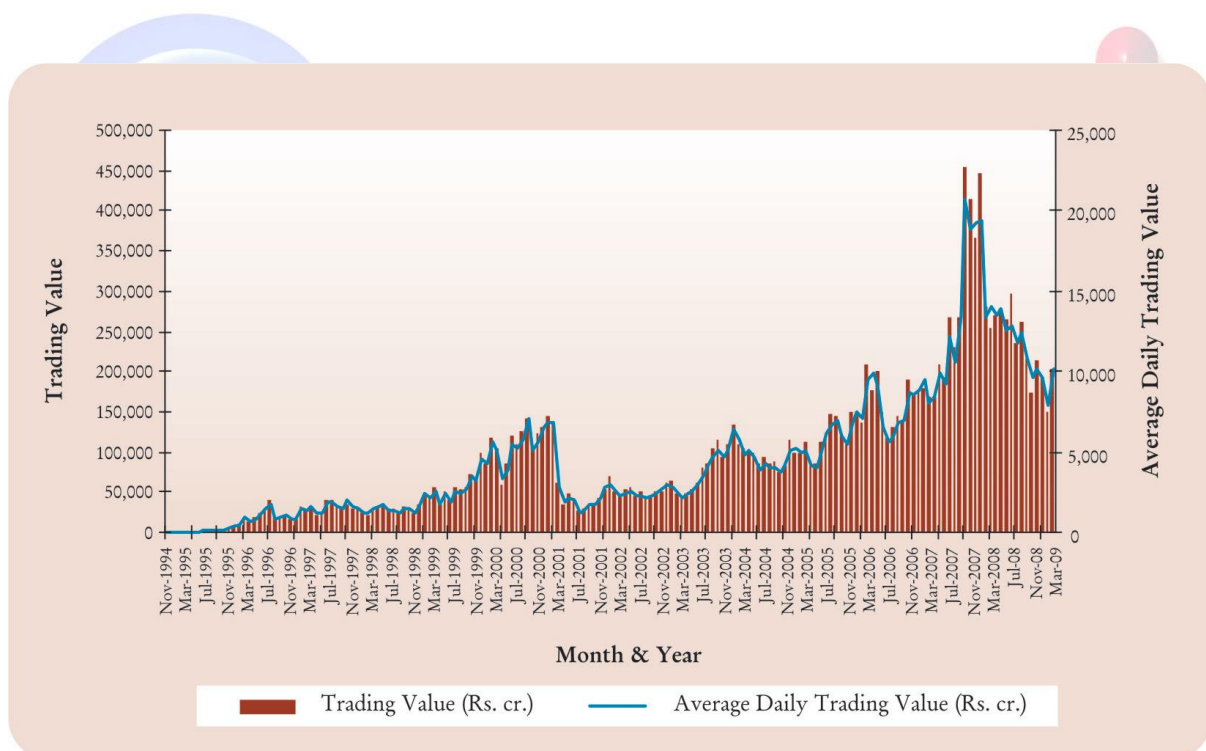
The real strength of the Indian securities market lies in the quality of its regulation. The market regulator, Securities and Exchange Board of India (SEBI) is an independent and effective regulator. It has put in place sound regulations in respect of intermediaries, trading mechanism, settlement cycles, risk management, derivative trading and takeover of companies. There is a well-designed disclosure based regulatory system. Information technology is used extensively in the securities market. The NSE and BSE have most advanced and scientific risk management systems. The growing number of market participants, the growth in volume of securities transactions, the reduction in transaction costs, the significant improvements in efficiency, transparency and safety, and the level of compliance with international standards have earned for the Indian securities market a new respect in the world.



## Capital Market Segment

The Trading on the NSE's capital market commenced on November 4, 1995 and has been witnessing a substantial growth over the years. The growth of NSE turnover figures shows a substantial rise from Rs. 1,805 crore (US \$ 574.29 million) in the year 1994-95 to Rs. 2,752,023 crore (US \$ 540,141.59 million) in 2008-09. With the increase in volumes, efficient and transparent trading platform, a wide range of securities like equity, preference shares, debt warrants, exchange traded funds as well as retail government securities, NSE upholds its position as the largest stock exchange in the country. The CM segment of the NSE and the BSE provides an efficient and transparent platform for trading of equity, preference shares, debentures, warrants, exchange traded funds as well as retail Government securities.

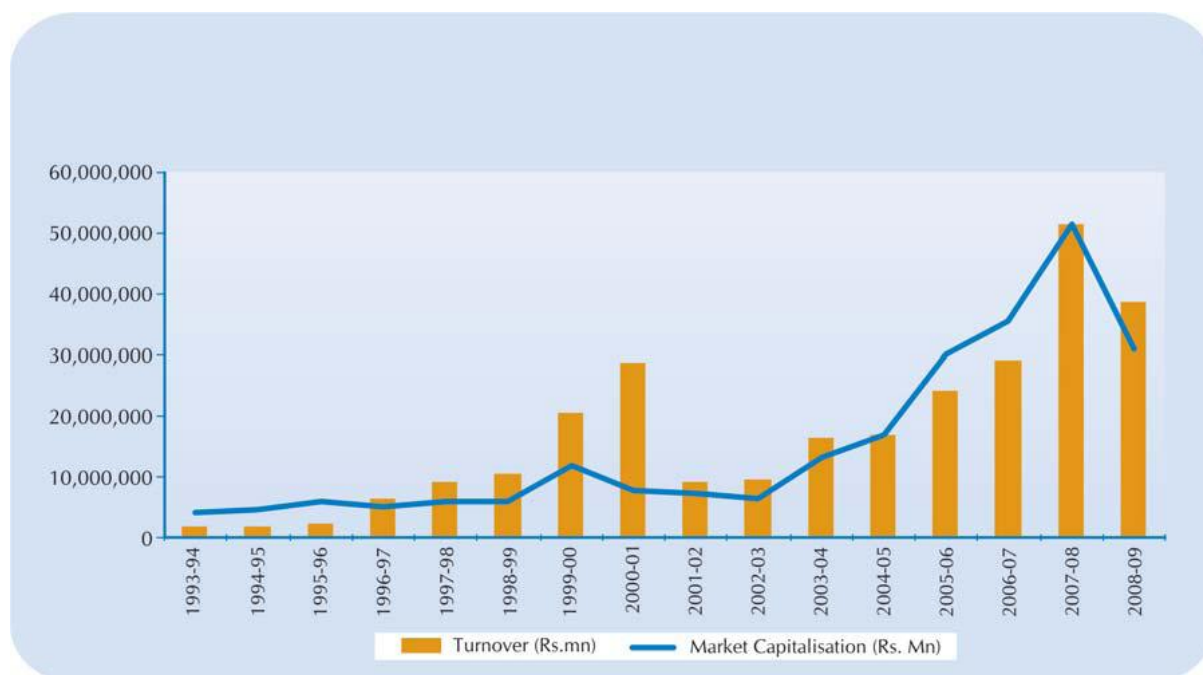
### Business Growth of Capital Market Segment



## Trading Volume

Over the years the Capital market has witnessed a growth in the trading volumes from Rs. 1,805 crore (US \$ 574.29 million) in 1994-95 the volumes increased to Rs. 2,752,023 crore (US \$ 540,142 million) in 2008-09. The average daily trading volume increased from Rs. 17 crore during 1994-95 to Rs. 11,325 crore (US \$ 2,223 million) during 2008-09. In the reporting year 2008-09 the volumes decreased by 22.50% to Rs. 2,752,023 crore (US \$ 540,142 million) from Rs. 3,551,038 crore (US \$ 888,426 million) during 2007-08. The business growth of the CM segment is presented in Chart below.

### Growth of All India Turnover and Market Capitalisation



## Turnover on Four Major Stock Exchanges

The relative importance of various stock exchanges in the market has undergone dramatic changes over a decade. The increase in turnover took place mostly at the Top 2 exchanges who accounted for 99.99% of turnover, while rest of the stock exchanges had negligible volumes during 2008-09.

## Growth Distribution of Turnover on four major Stock Exchanges

Stock Exchanges		2007-08 (Rs.mn)	2008-09 (Rs.mn)	2008-09 (US \$ mn)
1	NSE	169,238,329	140,984,566	2,767,116
2	BSE	18,233,239	11,128,204	218,414
3	Calcutta	4,460	3,930	77.13
4	Uttar Pradesh	4,750	890	17.47
<b>Total</b>		<b>187,480,778</b>	<b>152,117,591</b>	<b>3,805,794</b>

## India VIX\*<sup>2</sup>

In another innovation in the Indian markets, NSE launched the India VIX on 08<sup>th</sup> April, 2008 a volatility index based on the Nifty 50 Options prices. It launched the Real Time dissemination of India VIX on 19<sup>th</sup> July, 2010. From the best bid ask prices of Nifty 50 Options contracts (which are traded on the F&O segment of NSE), a volatility figure (%) is calculated which indicates the expected market volatility over the next 30 calendar days. Higher the implied volatility higher the India VIX value and vice versa.

There are some differences between a price index, such as the Nifty 50 and India VIX. Nifty 50 is calculated based on the price movement of the underlying 50 stocks, which comprises the index. India VIX is calculated based on the bid-offer prices of the near and mid month Nifty 50 Index Options. Nifty 50 Index is an absolute number, e.g. 4500, 5000 etc., whereas India VIX is a %age value (e.g. 20%, 30% etc.). Whereas Nifty 50 signifies how the markets

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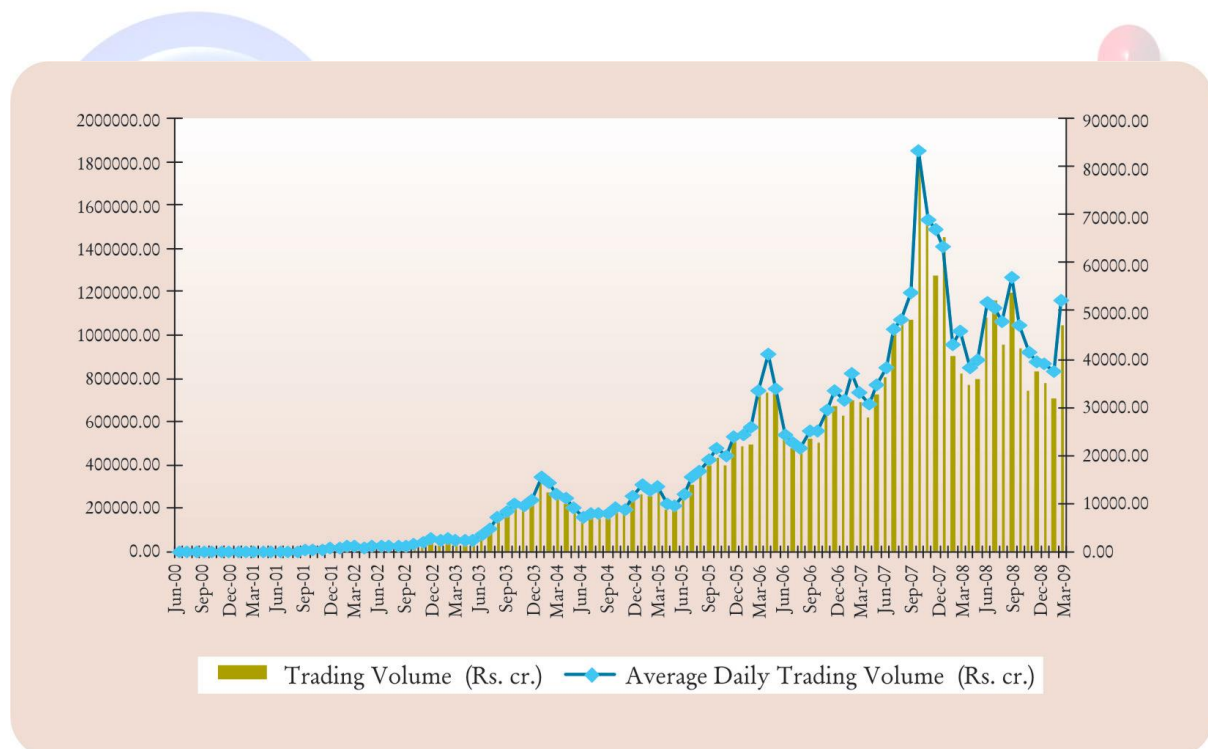
<sup>2</sup> \* "VIX" is a trademark of Chicago Board Options Exchange, Incorporated ("CBOE") and Standard & Poor's has granted a licence to NSE, with permission from CBOE, to use such mark in the name of the India VIX and for purposes relating to the India VIX.

have moved directionally, India VIX indicates the expected near term volatility in real time. In the near future, the exchange expects to launch derivative products based on the India VIX.

### Futures & Options Segment

The total turnover on the F&O Segment declined by 15.89% to Rs. 11,010,482 crore (US \$ 2,161,037 million) during 2008-09 as compared with Rs.13,090,478 crore (US \$ 3,275,076 million) during 2007-08. The average daily turnover during 2008-09 was Rs.45,311 crore (US \$ 8,893 million), a year on year decline of 13.12%. **Delivery based trading in the F&O Segment will be launched shortly.** The chart below describes the business growth of F&O segment and the number of contracts traded for the period 2000 to March 2009.

**Business Growth of F&O Segment**



## Benchmark Indices Contracts & Trading Volume in F&O

### Segment of NSE (2008-09)

Products	Underlying	No. Of Contracts	Turnover	
			Rs.cr.	US \$ mn
NIFTY	S&P CNX Nifty	396,820,905	7,067,827	1,387,208
BANK NIFTY	BANK Nifty	7,473,386	104,377	20,486
MINIFTY	S&P CNX Nifty	18,107,079	127,266	24,979
JUNIOR	CNX Nifty Junior	6,370	128	25
CNXIT	CNX IT	103,485	1,870	367
CNX100	CNX 100	154	3	1
Nifty Midcap 50	Nifty Midcap 50	2,459	58	11
Long term option Contracts	S&P CNX Nifty	623,416	14,585	2,863
DEFTY	S&P CNX Defty	2,709	84	17
<b>TOTAL</b>		<b>423,139,963</b>	<b>7,316,198</b>	<b>1,435,956</b>

### **Currency Derivatives Segment**

Trading in Currency Futures segment commenced on August 29, 2008. On the very first day of operations, a total number of 65,798 contracts valued at Rs.291 crore were traded on the Exchange. Since then trading activity in this segment has been witnessing a rapid growth. The total traded volume from August 2008 till March 2009 was Rs.162,272 crore (US \$ 31,849 million). Total numbers of contracts traded during the August 2008 to March 2009 were 32,672,768.

Initially Trading commenced only in the INR - USD pair. Recently the INR - GBP, INR - EURO & INR - YEN pairs are available for trading.

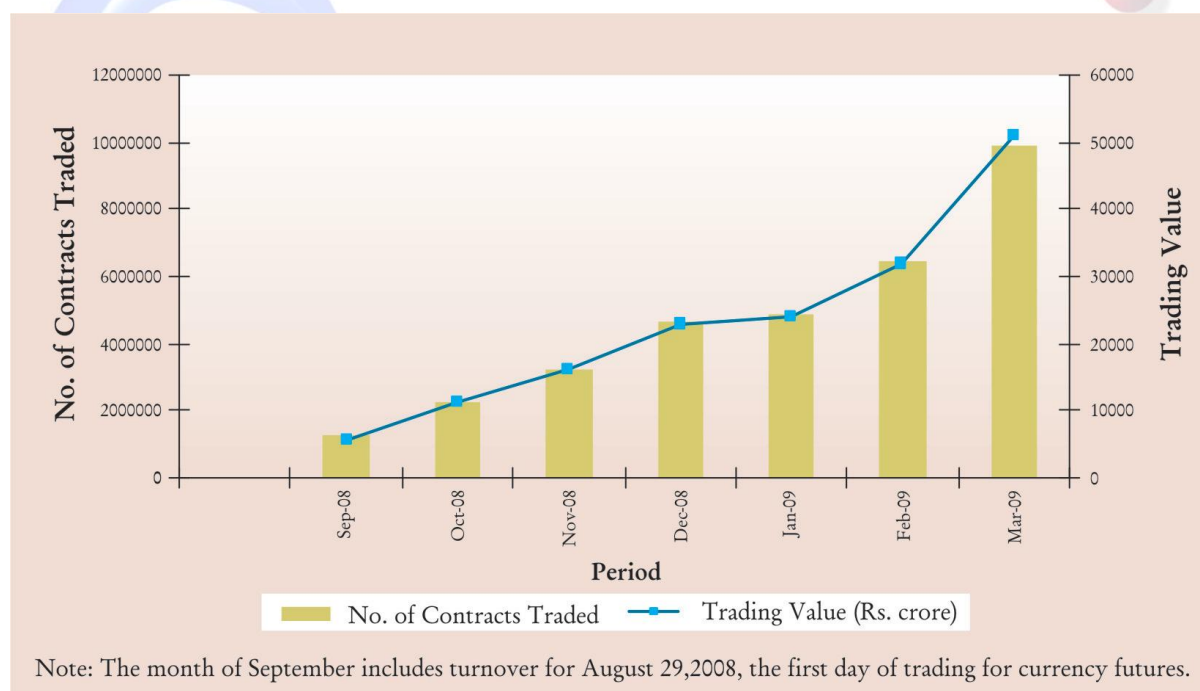
## Business Growth of Currency Futures

**Table**

Month / Year	No. Of Contracts Traded	Trading Value (Rs. Cr.)	Trading Value (US \$ mn)	Open Interest		
				No. Of Contracts traded	Trading Value (Rs. Cr.)	Trading Value (US \$ mn)
Sep-08*	1,258,099	5,763	1,131	90,871	428	84
Oct-08	2,275,261	11,142	2,187	170,202	851	167
Nov-08	3,233,679	15,969	3,134	146,262	737	145
Dec-08	4,681,593	22,840	4,483	177,520	867	170
Jan-08	4,900,904	23,980	4,707	254,797	1,247	245
Feb-08	6,416,059	31,761	6,234	315,317	1,612	316
Mar-08	9,907,173	50,817	9,974	257,554	1,313	258
<b>Aug 08-Mar09</b>	<b>32,672,768</b>	<b>162,272</b>	<b>31,849</b>	<b>257,554</b>	<b>1,313</b>	<b>258</b>

\*Includes turnover details for August 29, 2008 the first day of trading for Currency Futures at NSE

**Chart**



## Foreign Institutional Investments

During 2008-09, FIIs have been net sellers to the tune of US \$ 11,456 million. This can be attributed to the weak sentiments, following the global credit crisis which engulfed the developed countries and is seen to be affecting the developing countries as well.

### Trends in FII Investment

Period	Purchases (Rs. Mn.)	Sales (Rs. Mn.)	Net Investment (Rs. Mn.)	Net Investment (US \$ mn.)	Cumulative Net Investment (US \$ mn.)
2000-01	740,506	641,164	99,342	2,159	13,396
2001-02	499,199	411,650	87,549	1,846	15,242
2002-03	470,601	443,710	26,891	562	15,804
2003-04	1,448,575	990,940	457,635	9,949	25,754
2004-05	2,169,530	1,710,730	458,800	10,173	35,927
2005-06	3,449,780	3,055,120	394,660	9,334	477,063
2006-07	<b>5,205,090</b>	<b>4,896,680</b>	<b>308,410</b>	<b>6,709</b>	<b>51,967</b>
2007-08	<b>9,480,196</b>	<b>8,389,304</b>	<b>1,090,892</b>	<b>16,040</b>	<b>68,006</b>
2008-09	<b>6,145,810</b>	<b>6,603,920</b>	<b>-458,110</b>	<b>-11,456</b>	<b>56,650</b>

Source: SEBI.

(-) indicates negative values

Note: This data pertains to investment route in stock exchanges, primary market and other.

## Clearing & Settlement

The transactions in secondary market pass through three distinct phases, viz., trading, clearing and settlement. While the stock exchanges provide the platform for trading, the clearing corporation determines the funds and securities obligations of the trading members and ensures that the trade is settled through exchange of obligations.

The Role of several entities involved in the process of clearing is as follows:

- a. Clearing Corporation:** The Clearing Corporation is responsible for post-trade activities such as risk management and clearing and settlement of trades executed on a stock exchange.
- b. Clearing Members:** Clearing Members are responsible for settling their obligations as determined by the corporation.
- c. Custodians:** Custodians are clearing members but not trading members. They settle trades on behalf of trading members, when a particular trade is assigned to them for settlement.
- d. Clearing Banks:** Clearing banks are a key link between the clearing members and Clearing Corporation to effect settlement of funds. Every clearing member is required to open a dedicated clearing account with one of the designated clearing banks. The clearing member makes funds available in the clearing account for the pay-in and receives funds in case of a pay-out.
- e. Depositories:** Depository holds securities in dematerialized form for the investors in their beneficiary accounts. Each clearing member is required to maintain a clearing pool account with the depositories. The depositories in India are the National Securities Depository Ltd (NSDL) and Central Depository Services (India) Ltd (CDSL).
- f. Professional Clearing Member:** NSCCL admits special category of members known as professional clearing members (PCMs). The functions and responsibilities of the PCM are similar to that of the custodians.



**India is the only country in the world with a 100% clearing in Dematerialised format.**

### **Settlement Cycle in CM Segment**

<b>Activity</b>	<b>T+2 Rolling Settlement (From April 1,2003)</b>
Trading	T
Custodial Confirmation	T+1
Delivery generation	T+1
Securities / Funds Pay-in	T+2
Securities / Funds Pay-out	T+2
Valuation Debit	T+2
Auction	T+3
Bad Delivery Reporting	T+4
Auction Pay-in / Pay-out	T+5
Close Out	T+5
Rectified Bad Delivery Pay-in / Pay-out	T+6
Re-bad Delivery Reporting	T+8
Close Out of Re-bad Delivery	T+9

T+1 means one working day after the trade day. Other T+ terms have similar meanings.

Source: NSE

