



Global Crisis and India

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International Conference
Global Economic Downturn: Lessons and Way Forward
New Delhi
9-10 February 2009

Roots of Global Crisis



- Global macroeconomic imbalances
 - Results in huge cross-border capital flows from surplus to deficit countries
 - International financial system failed to intermediate these flows properly
 - Lending to sub-prime borrowers/ imprudent credit expansion
 - Debt crisis of 1980s, East Asian crisis of late 1990s and the present global crisis
 - Current one the severest and the impact so vast and widespread

Global Macroeconomic Imbalances



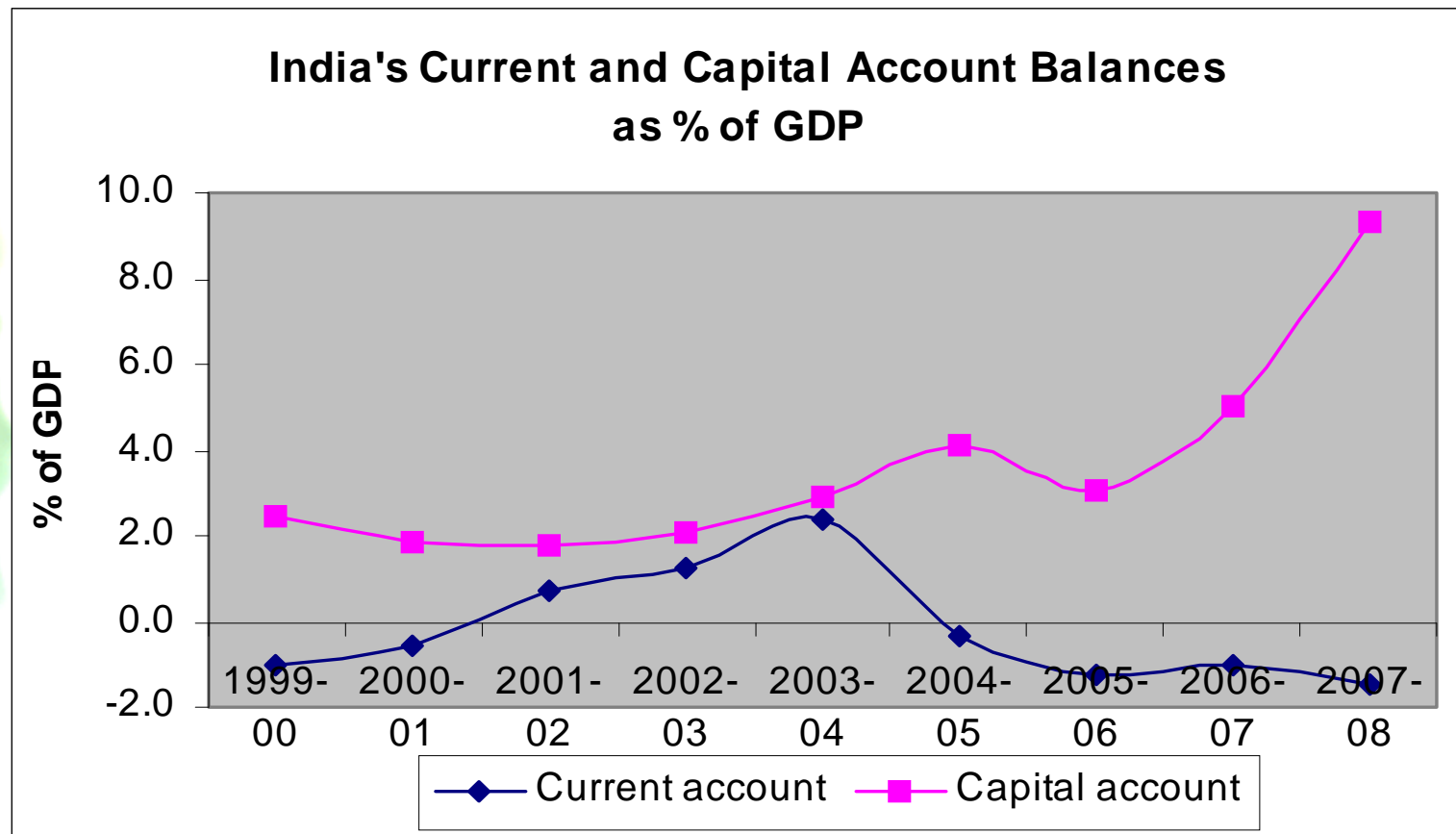
Table 1: Current Account Balance as % of GDP, 1995-2007

	Australia	US	UK	Spain	China	Germany	Japan	Norway	Russia	Saudi Arabia	India
1995	-5.2	-1.5	-1.2	-0.3	0.2	-1.2	2.1	3.6	2.2	-3.7	-1.6
2000	-3.8	-4.3	-2.6	-4.0	1.7	-1.7	2.6	15	18	7.6	-1.0
2001	-2.0	-3.8	-2.1	-3.9	1.3	0	2.1	16.1	11.1	5.1	0.3
2002	-3.7	-4.4	-1.7	-3.3	2.4	2.0	2.9	12.6	8.4	6.3	1.4
2003	-5.3	-4.8	-1.6	-3.5	2.8	2.0	3.2	12.3	8.2	13.1	1.5
2004	-6.1	-5.3	-2.1	-5.3	3.6	4.7	3.7	12.7	10.1	20.8	0.1
2005	-5.8	-5.9	-2.6	-7.4	7.2	5.2	3.6	16.3	11	28.7	-1.3
2006	-5.3	-6.0	-3.4	-8.9	9.4	6.1	3.9	17.3	9.5	27.9	-1.1
2007	-6.2	-5.3	-3.8	-10.1	11.3	7.6	4.8	15.4	5.9	25.1	-1.4

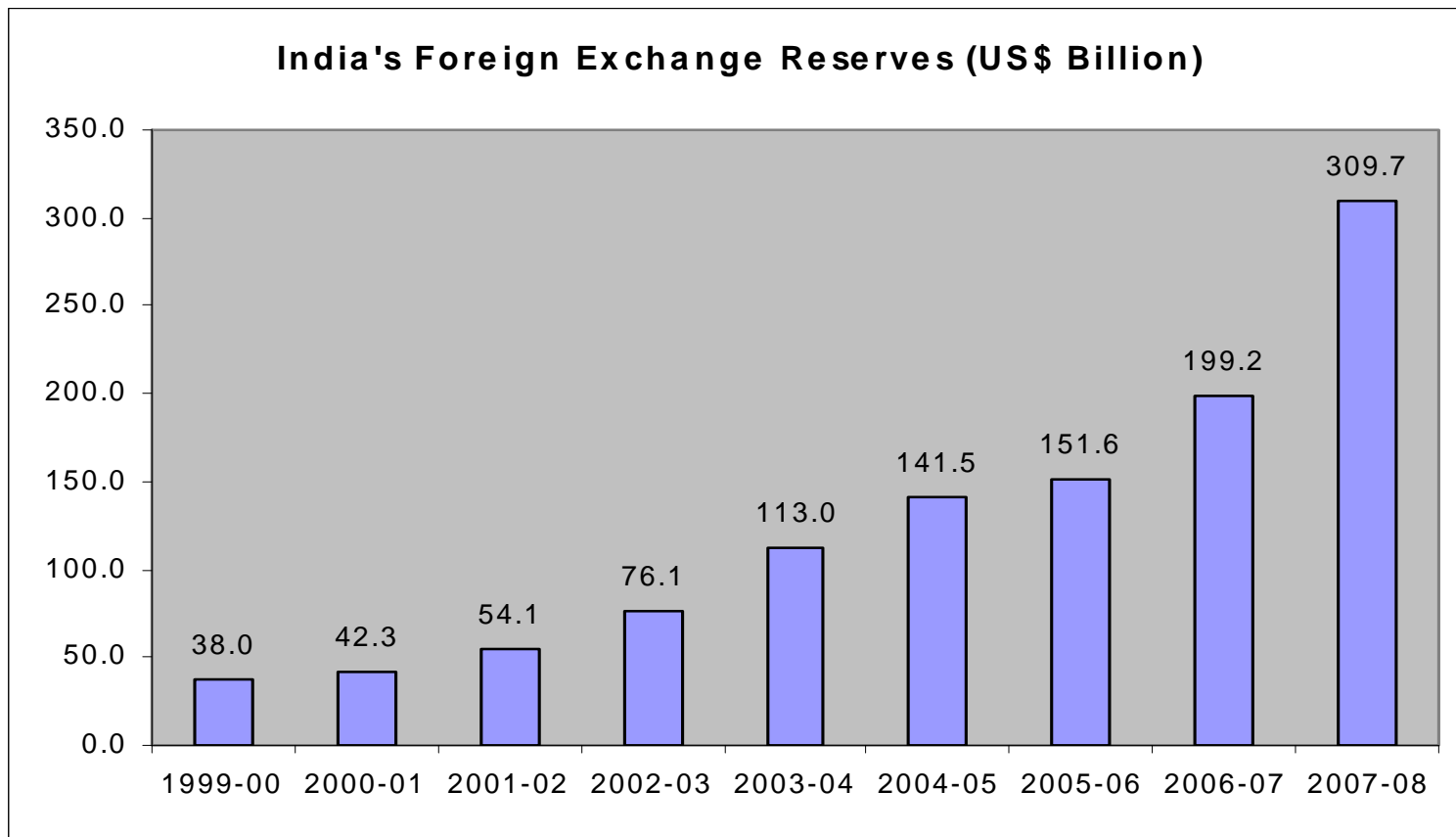
Source: IMF.

- Persistent deficits and surpluses among nations
- India not part of global imbalances

Capital Inflows into India

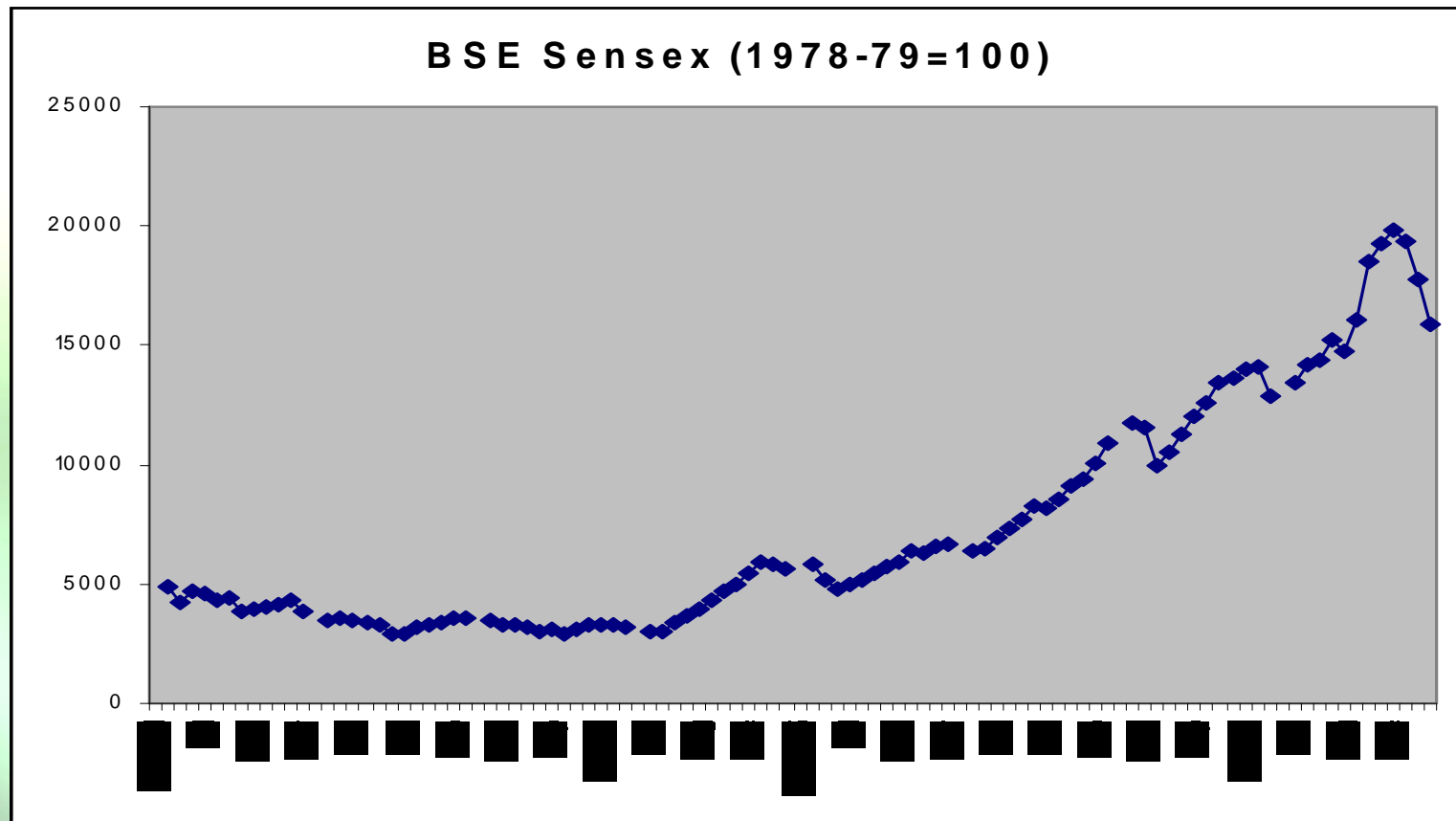


India's Reserve Build-up



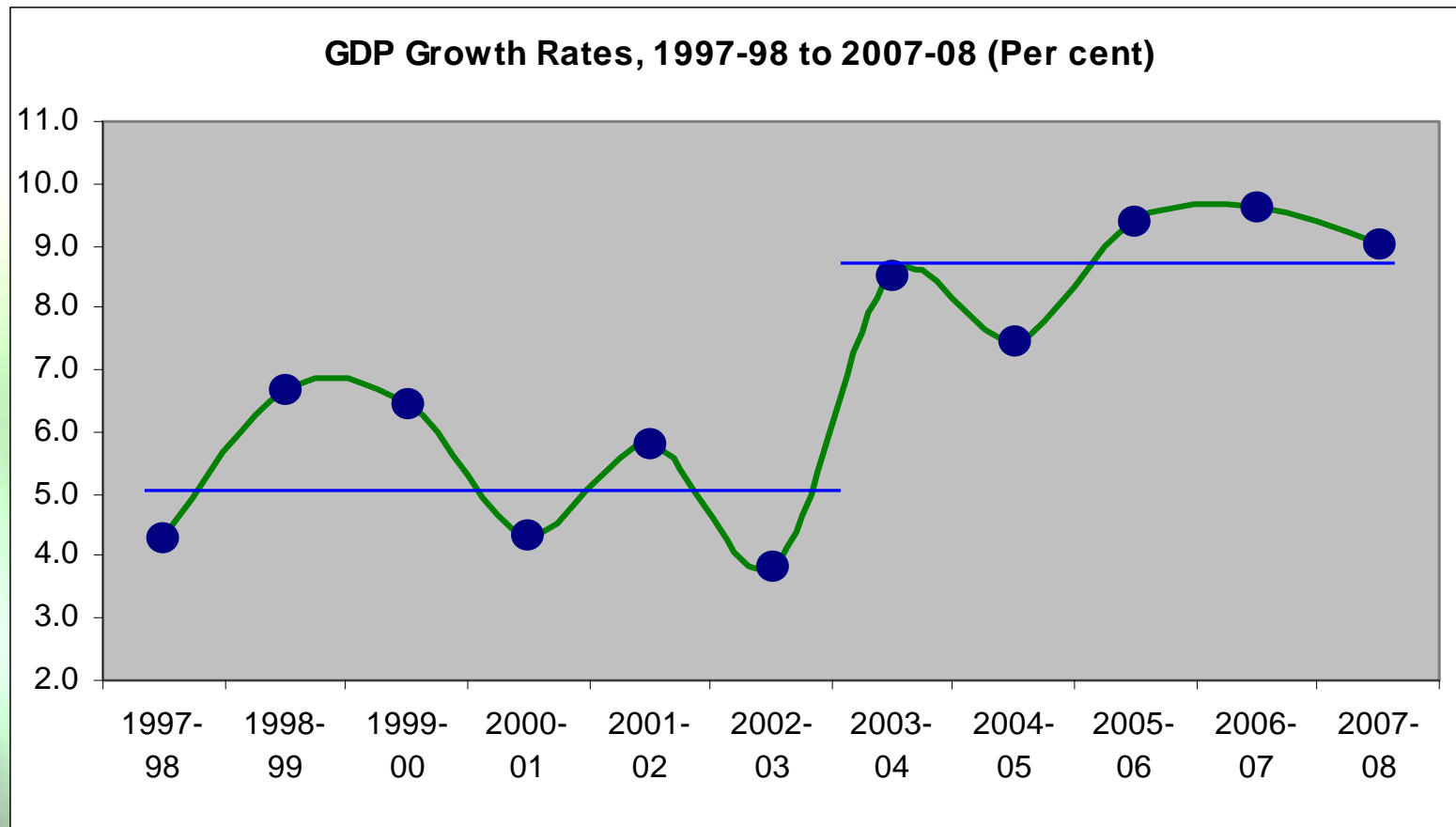
Turned out to be building up a war chest!

Huge Stock Market Rally



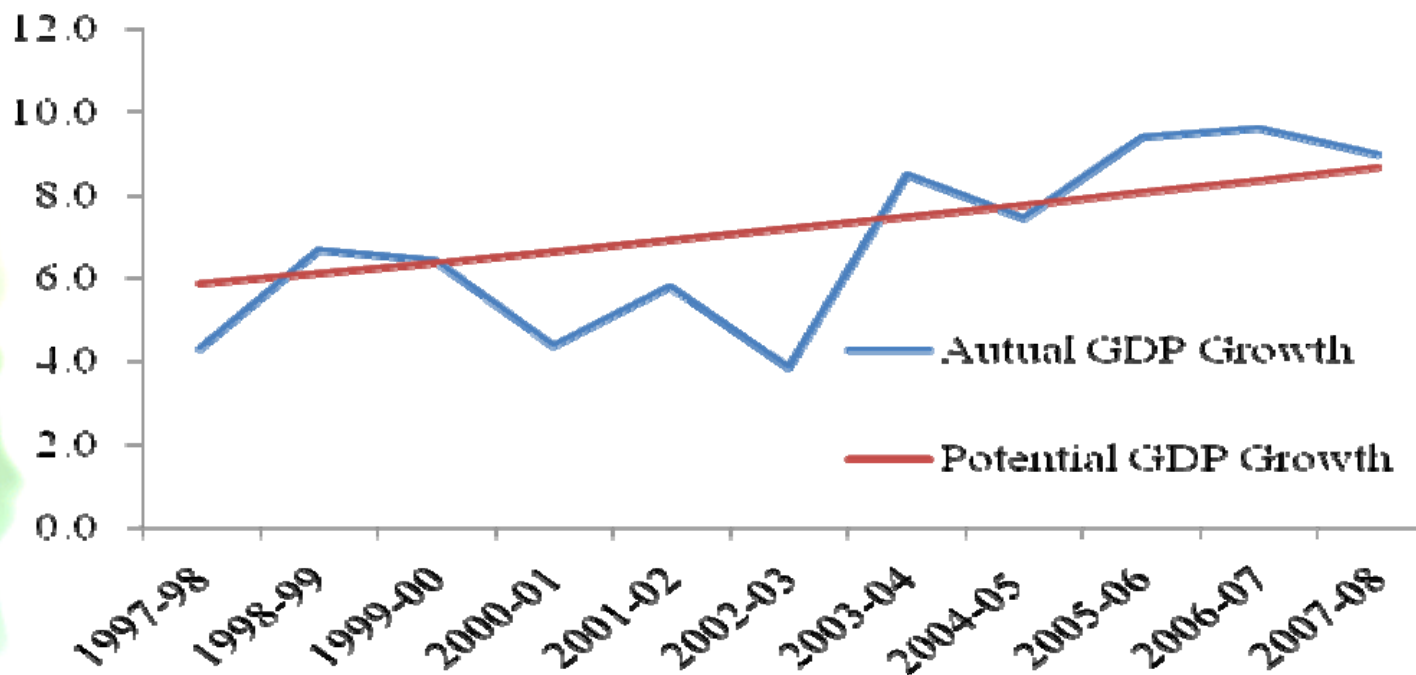
Stock index rising from an average 5500 during 2004 to over 20,000 in January 2008

Remarkable Growth Performance



Lifted to a new high growth trajectory

Overheating of Indian Economy

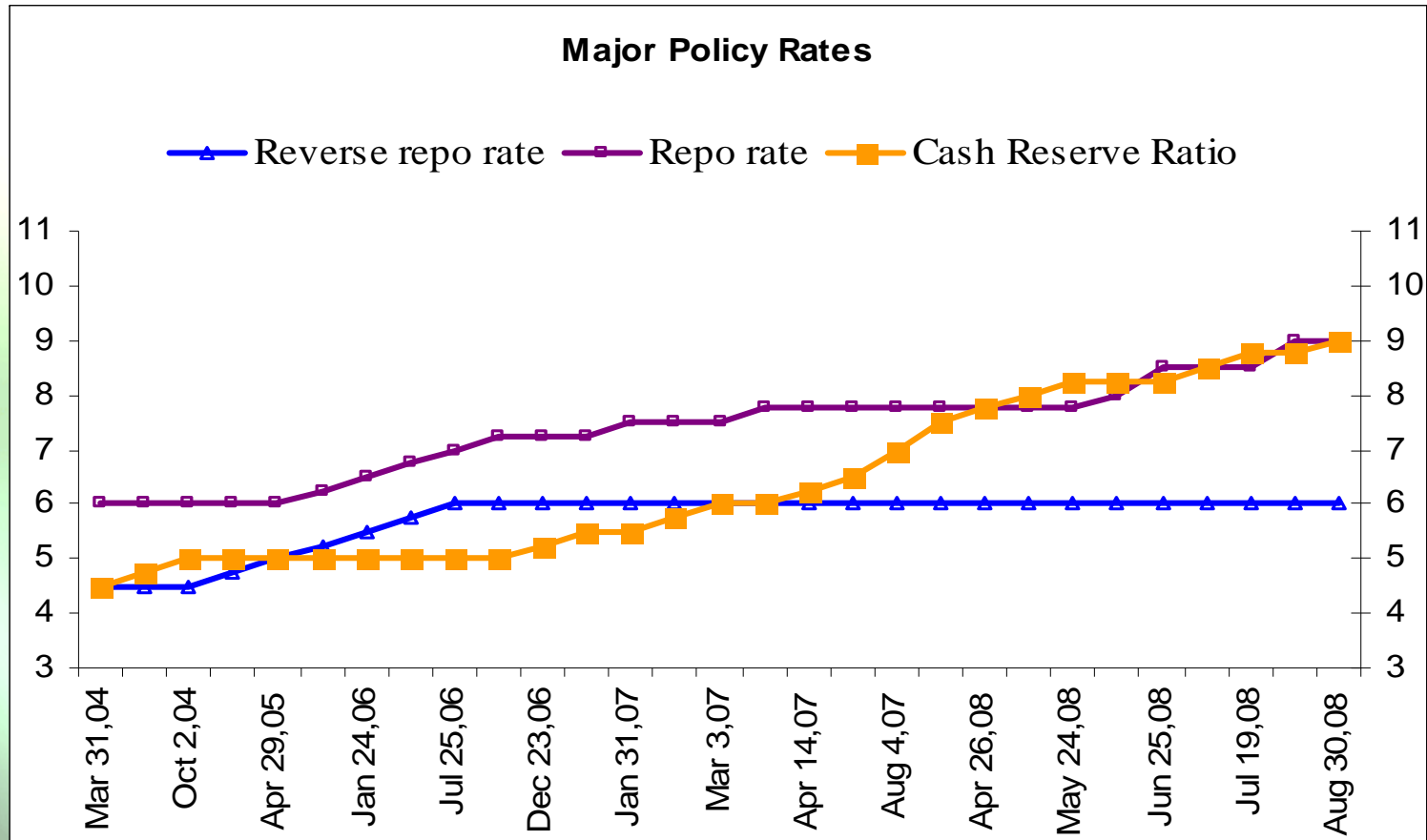


Note: HP filter technique as proposed by Hodrick and Prescott (1997)

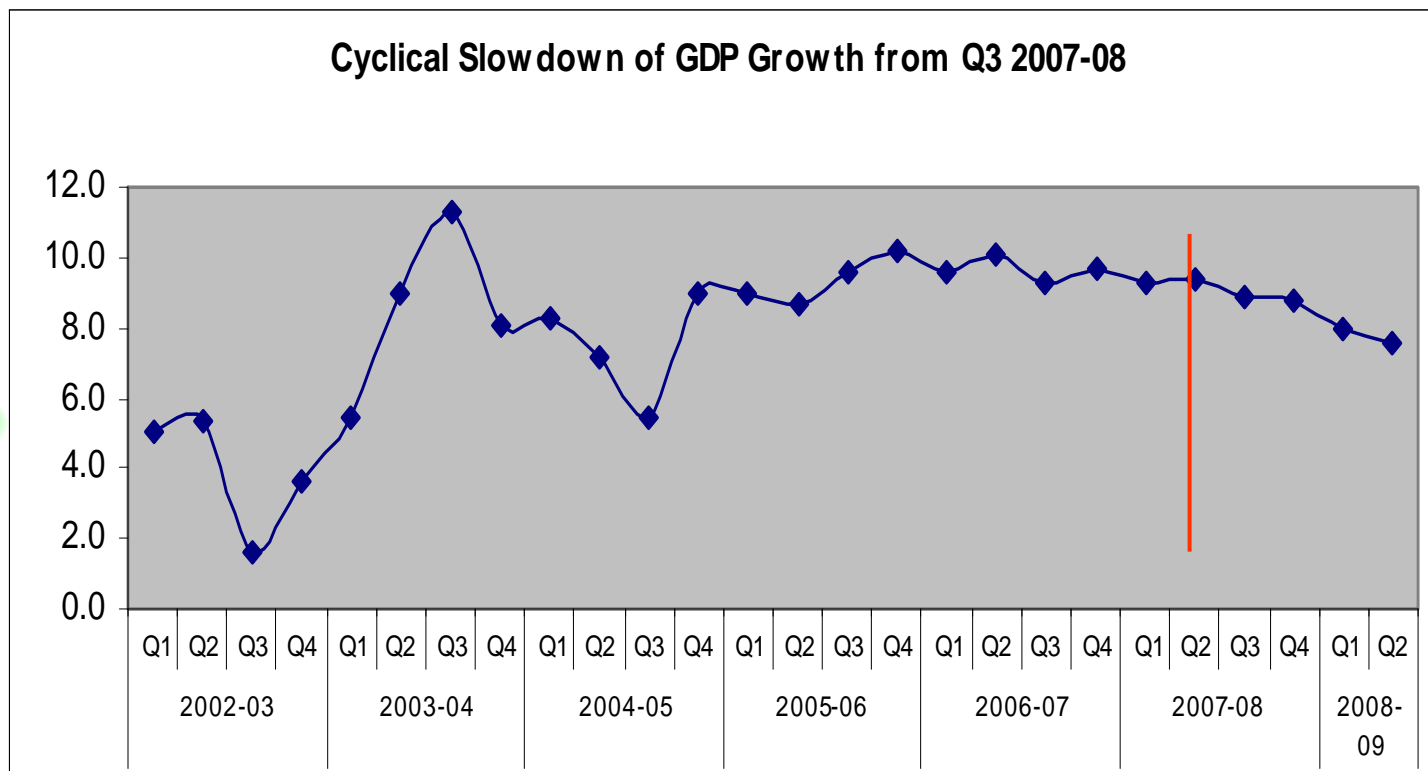
GDP growth above potential rate in recent years

Inflation above 5 per cent from 2003-04

Monetary Tightening from 2004



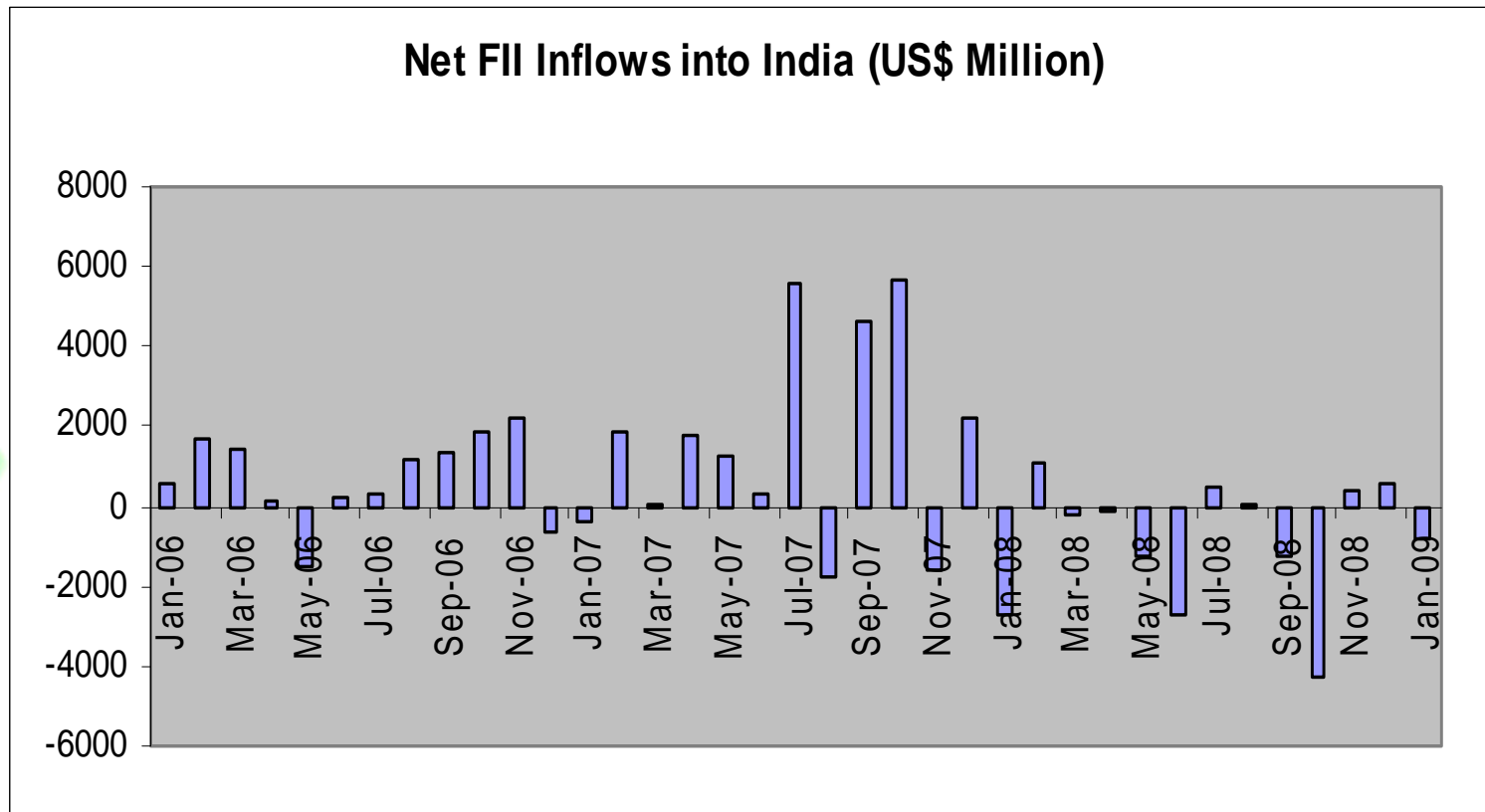
Soft-landing of Indian Economy





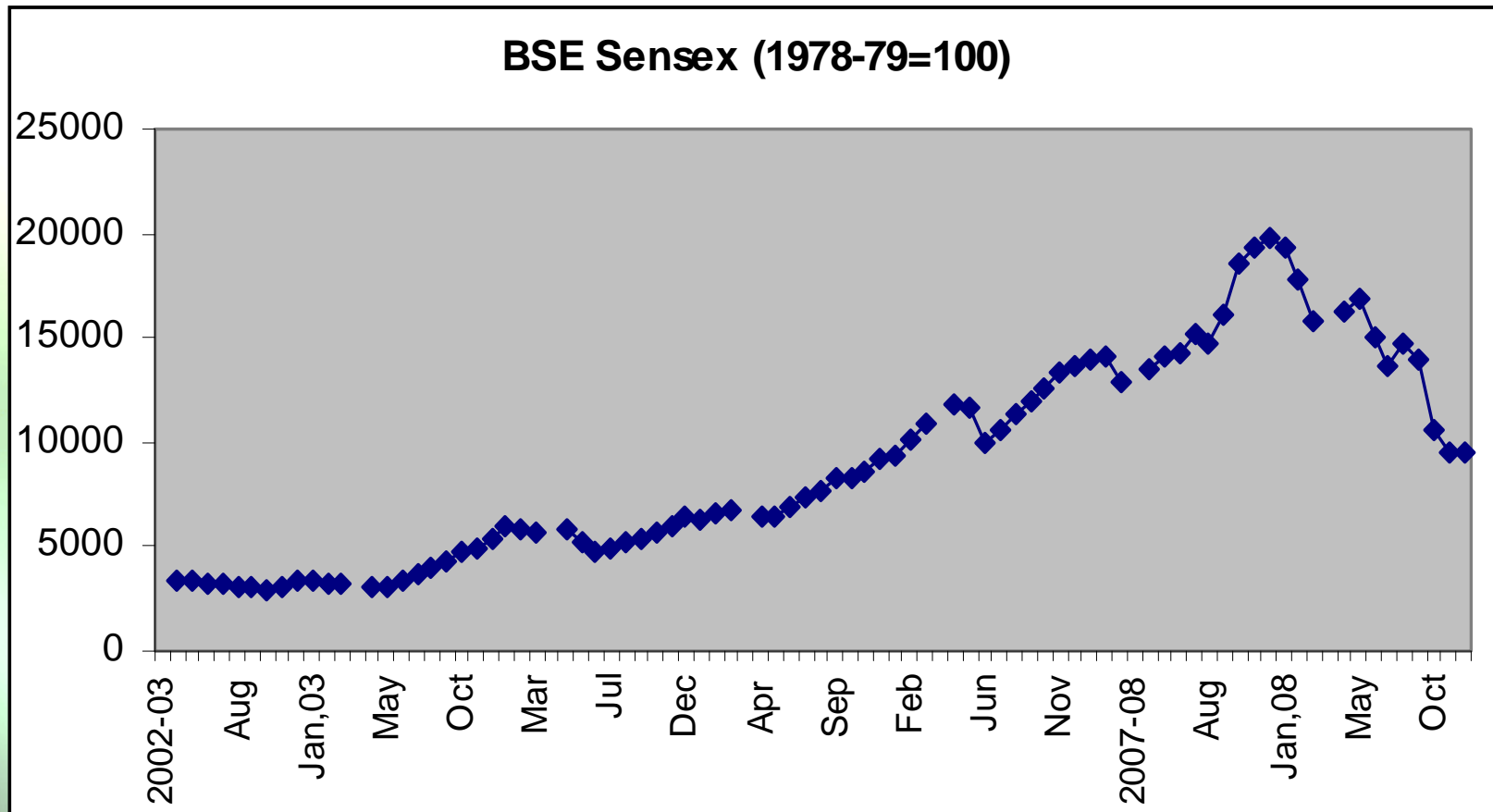
Global Crisis

Reversal of Capital Flows from India



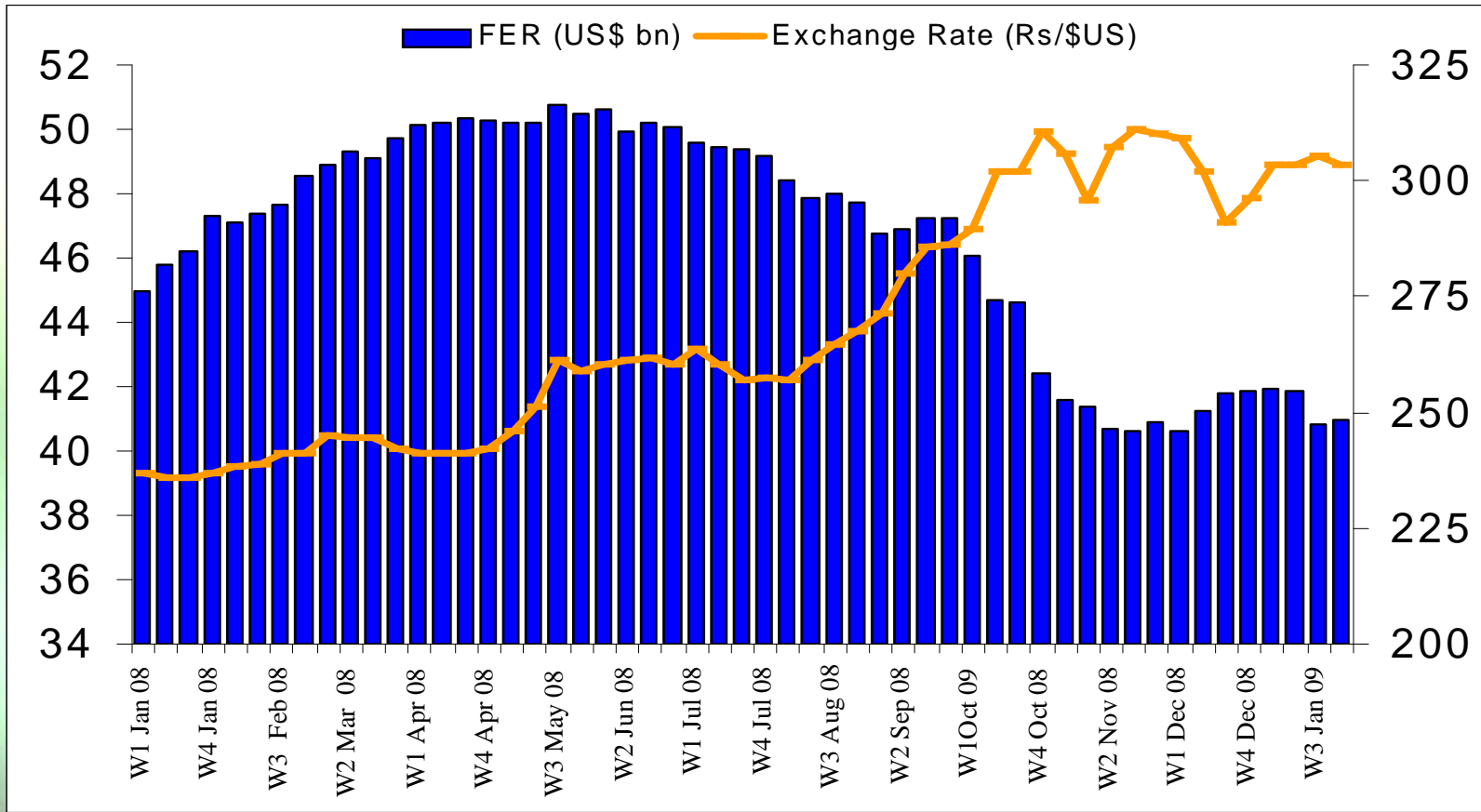
- *Huge capital outflows from India since December 2007*
- *FII equity outflows over US\$ 14 bn*

Stock Market Crash



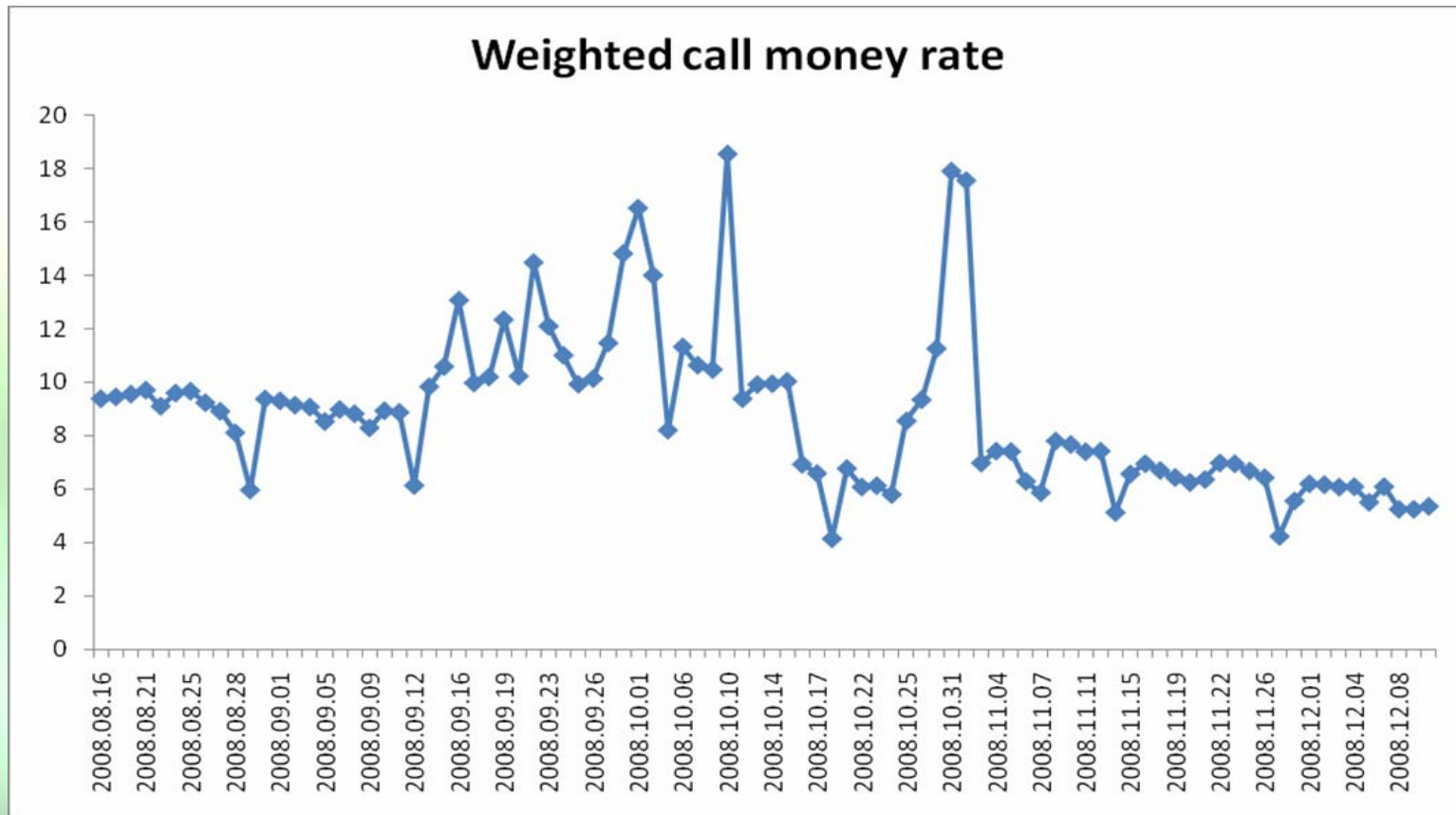
Plummeting from 20,873 on 8 Jan 08 to 9093 on 28 Nov, 56% fall.

Foreign Reserves & Exchange Rate



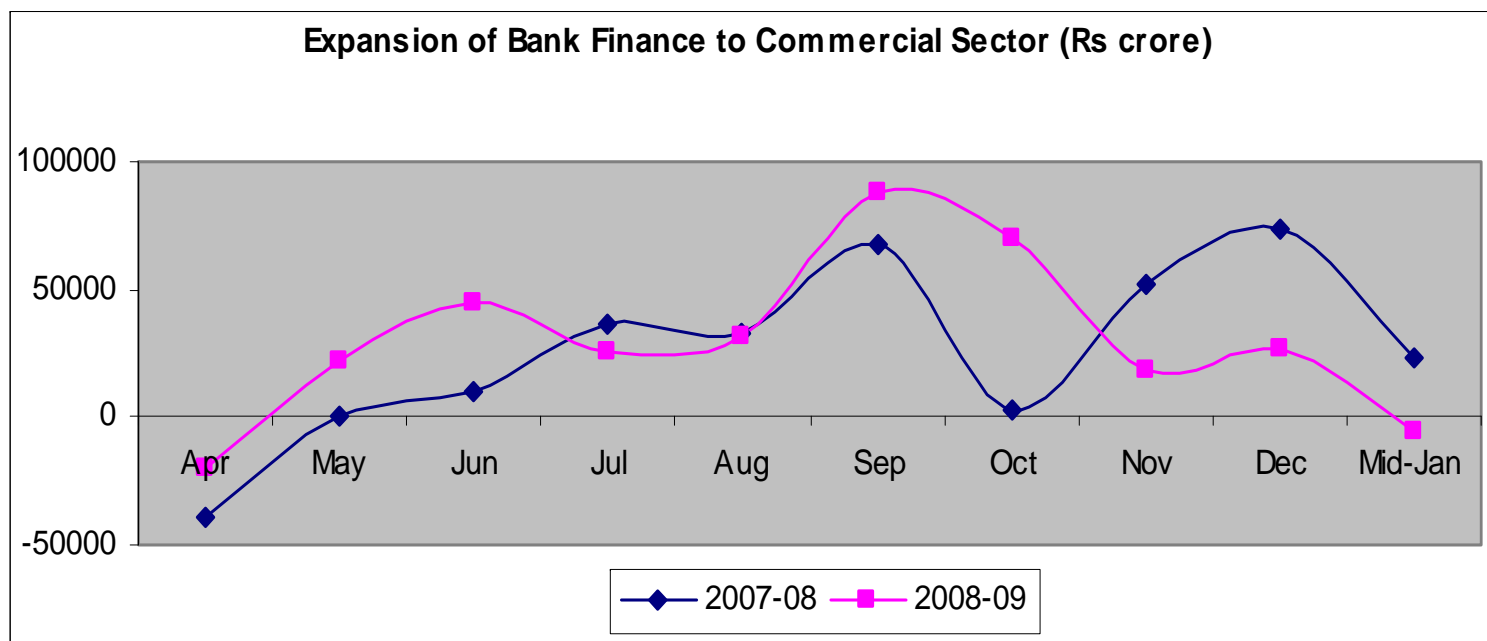
- Stock of Reserves falling from \$315 bn in May 08 to \$246 bn in Nov 08
- Rupee tumbling by 20% from end-Mar 08 to end-Nov 08.

Liquidity Crisis



Inter-bank call money rate spiking to 20% in October 08

Credit Crunch to Low Credit Demand



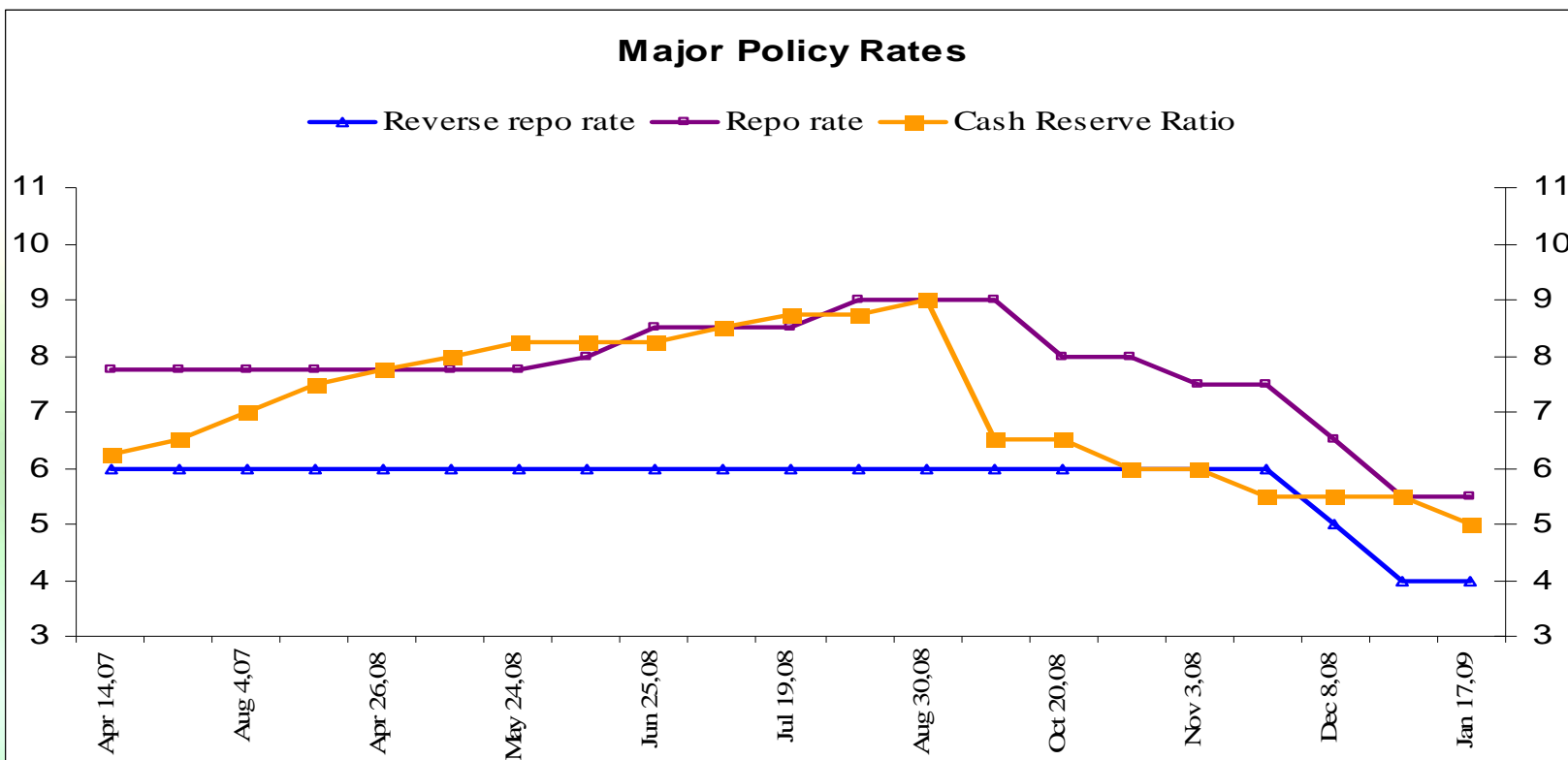
- *In September and October 08, bank finance (loans & investments) rose to compensate for drying up funds from domestic and foreign capital markets*
- *In November 08 onwards, bank finance expansion sharply lower as **demand has fallen; and bank finance turned negative in Jan 09.***



Aggressive Policy Response

- RBI loosening cost and availability of liquidity in a series of steps from mid-September 08

RBI Policy Rate Changes



- Cash reserve ratio (CRR) brought down from 9% to 5%
- Statutory liquidity ratio (SLR) from 25% to 24%
- Repo rate reduced from 9% to 5.5% & reverse repo rate from 6% to 4%
- Special window for banks in their lending to mutual funds, NBFCs and housing finance companies
- Refinance facility for banks from the central bank & dollar swap arrangements, etc.

RBI Liquidity Injection



Actual/Potential Release of Primary Liquidity since Mid-September 2008 (Rs crore)		
1	Cash Reserve Ratio (CRR) Reduction	1,60,000
2	MSS Unwinding	63,045
3	Term Repo Facility	60,000
4	Increase in Export Credit Refinance	25,500
5	Special Refinance Facility for SCBs (Non-RRB)	38,500
6	Refinance Facility for SIDBI/NHB/EXIM Bank	16,000
7	Liquidity Facility for NBFCs through SPV	25,000
Total (1 to 7)		3,88,045
Memo: Statutory Liquidity Ratio (SLR) Reduction		40,000

Nearly Rs. 4000 bn (\$80 bn), over 7% of GDP of liquidity release

Fiscal Stimulus



- Deterioration of the economy leading to Central government's two packages of fiscal stimulus in early Dec 08 and early Jan 09
 - Direct fiscal burden of stimulus just 1.2% of GDP
 - Across-the-board excise duty reduction by 4 %age points
 - Additional plan spending of Rs. 200 billion
 - State governments allowed additional market borrowing of Rs 300 billion for plan expenditure
 - Assistance to export industries
 - Fiscal deficit (Central and States combined) rising sharply to cross 10% of GDP in 2008-09

Sharp Real Sector deterioration from September 2008



Growth in Selected Economic Indicators (% Change, Y-O-Y)						
	Apr-Aug 08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09
Industry	4.8	5.5	-0.3	2.4		
Exports	35.1	10.4	-12.1	-9.9	-1.1	-22.3
Imports	37.7	43.3	10.6	6.1	8.8	-16.1
Railway freight traffic	8.6	8.2	-0.1	1.3	3.1	
Major ports traffic	8.7	1.1	-5.7	-4.6		
Commercial vehicle sales	3.9	-0.6	-34.9	-48.0	-58.2	
Airport passenger traffic	-0.8	-14.0	-7.7			
Central government tax revenue	25.0	26.0	-4.6	-3.5	-18.6	
	Q3 07-08	Q4 07-08	Q1 08-09	Q2 08-09	Q3 08-09	
Real GDP	8.8	8.8	7.9	7.6		
Corporate sales	18.5	24.0	31.4	34.6	13.3	
Corporate profit (2520 companies)	21.2	7.1	4.7	-25.4	-25.6	

Source: CSO, Ministry of Commerce, CMIE and Economic Times.



Growth Prospects: 2008-09 and 2009-10

GDP Forecasts



- Methodology:
 - Use of an index of leading economic indicators (LEI)
 - Also a external shock in the form of a dummy variable

GDP Forecasts...



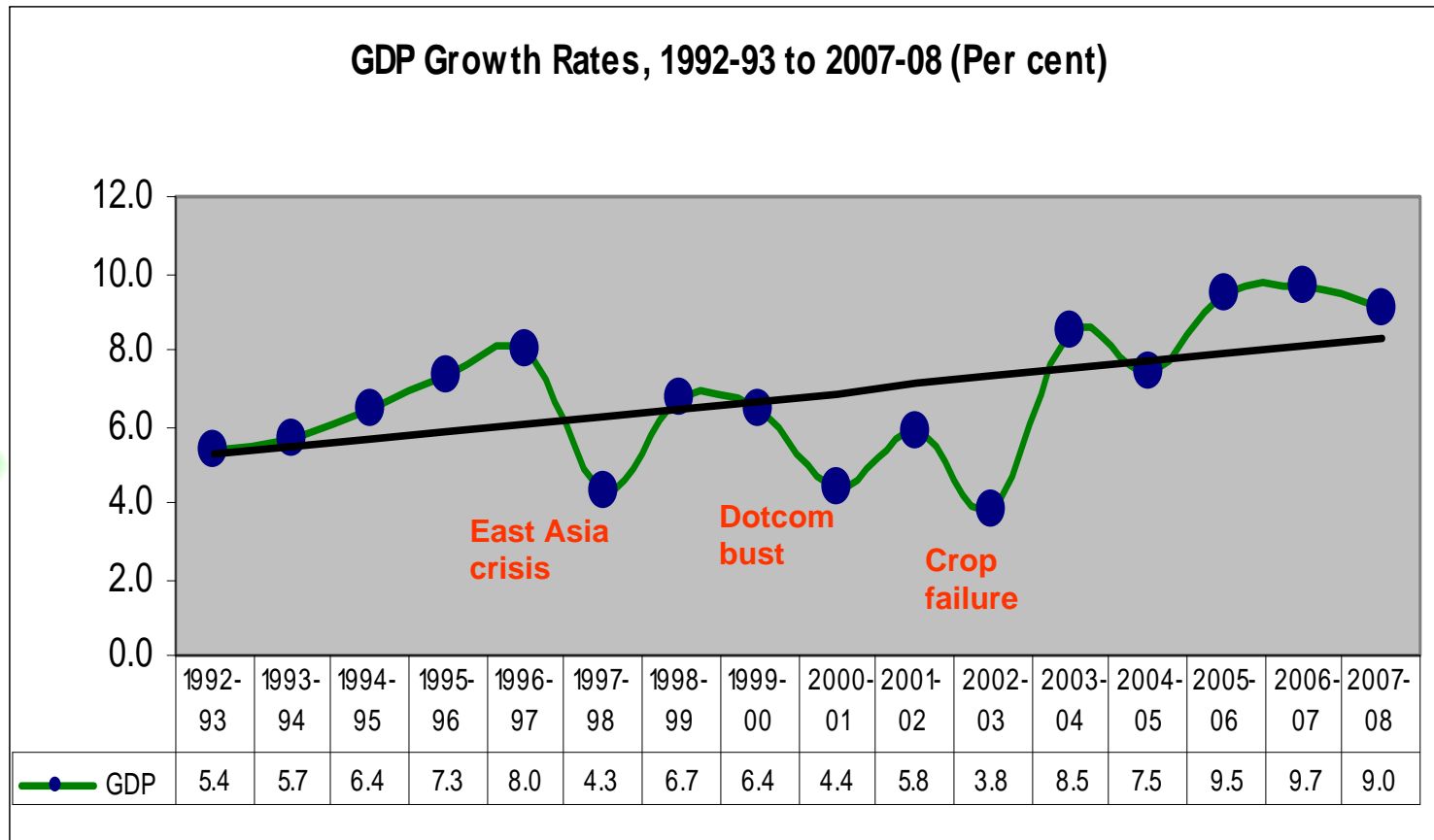
- LEI Consists of:
 - (i) production of machinery and equipment
 - (ii) non-food credit
 - (iii) railway freight traffic
 - (iv) cement sales
 - (v) net sales of the corporate sector
 - (vi) fuel and metal prices
 - (vii) real rate of interest
 - (viii) BSE sensex and
 - (ix) exports

Index of Leading Economic Indicators (LEI).....

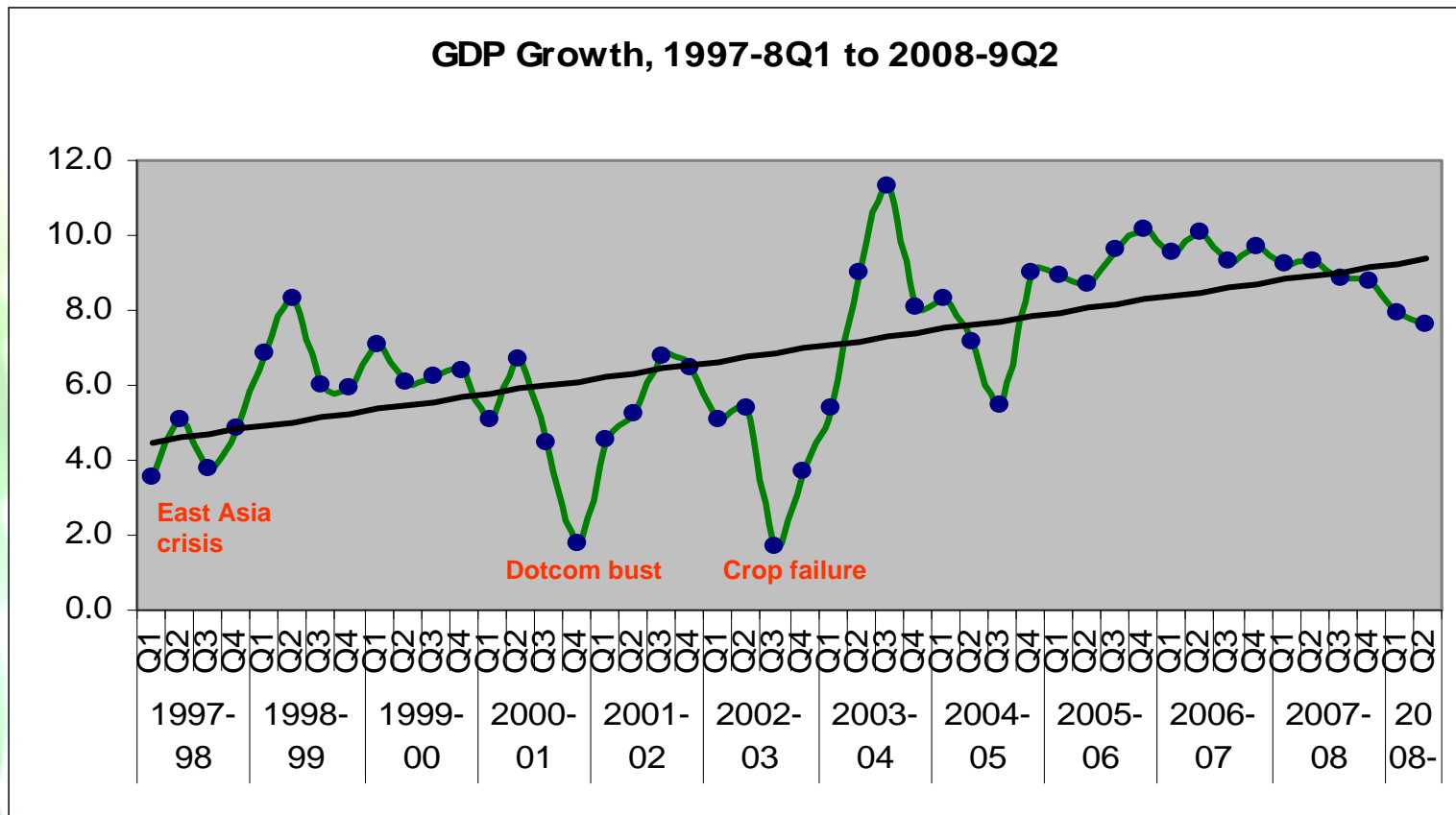


- Composite index constructed for 1997-08 with quarterly growth series
- Principal component index (PCI) method
 - Weights assigned through iteration process based on the contribution to total variation in the composite index
- LEI predicts future growth based on the past, 5-quarter in advance
- Cannot capture the effects of sudden external shocks having immediate impact on growth
 - East Asia crisis, 1997-98
 - Dotcom bust in 2000-01 and 2001-02
 - Crop failure in 2002-03
 - Current shock of US financial meltdown in 2008-09 and 2009-10

External Shocks & India's GDP Growth

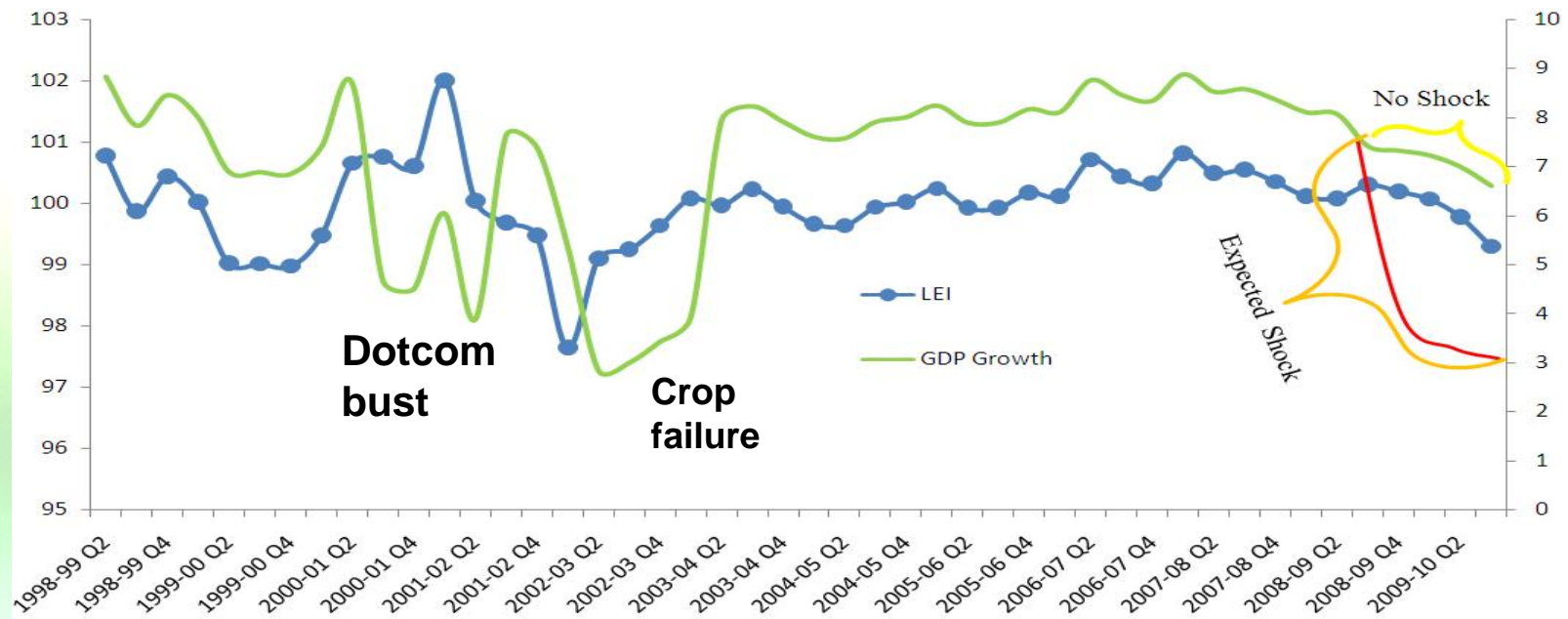


External Shocks & India's GDP Growth





Projection of Growth Rate through Index of Leading Indicators & a Shock Variable



The estimated equation for GDP growth forecast, given below, is satisfactory with adjusted **R-square** value of **0.58** and all the **co-efficients** significant at **99% level**.

$$\text{GrGDP} = 7.98 + 1.11 \text{ LEI } (-5) - 4.15 \text{ Dummy}$$

(3.36) (-7.26)

Growth Prospects of India



- Based on leading Indicators and a shock variable to incorporate the global crisis, the growth rates for 2008-09 and three quarters of 2009-10 are projected as:

GDP Forecast for 2008-09 and 2009-10 (up to 3 quarters)

	No Shock	With Shock
2008-09	7.6	5.9
2009-10 (Apr-Dec)	6.9	3.5

Concluding Remarks

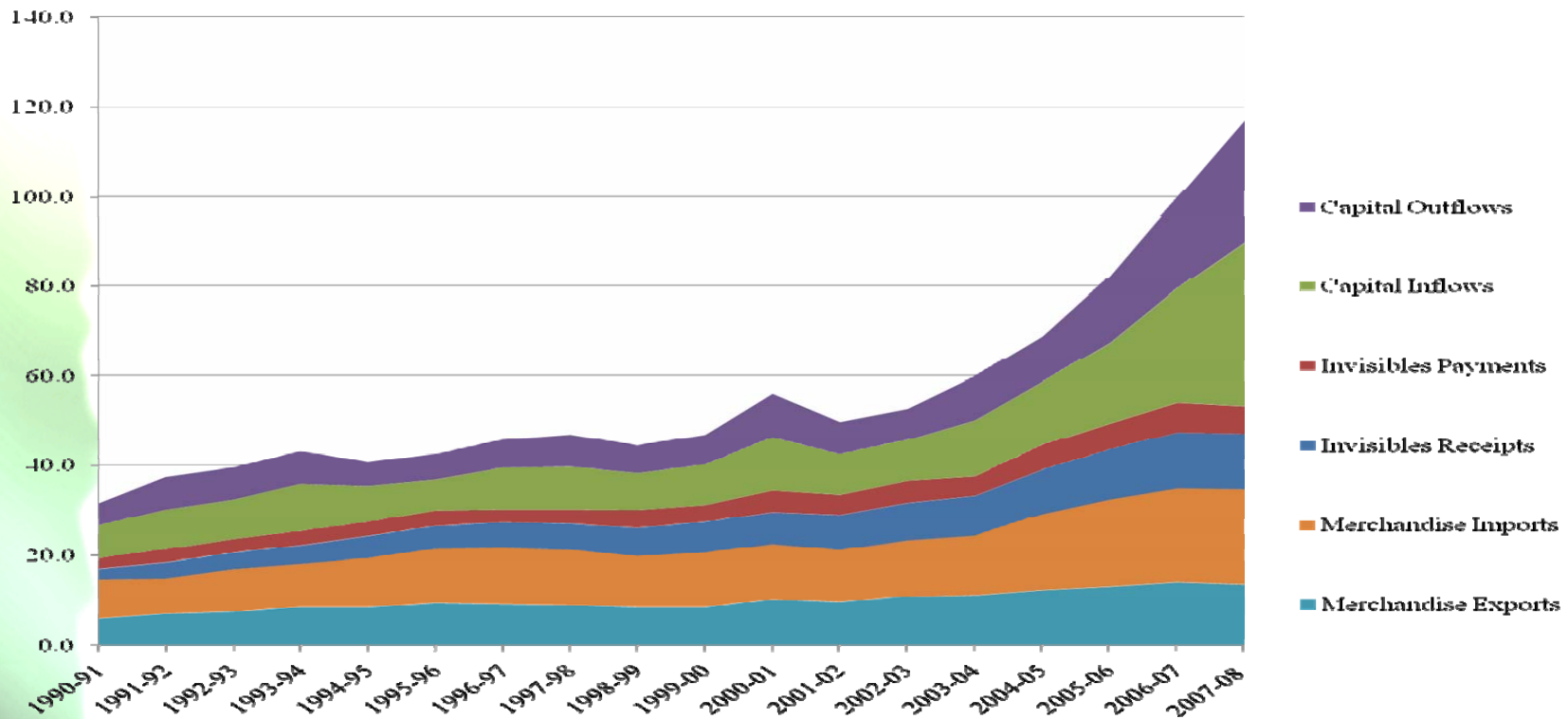


- India is seriously affected by the global crisis
- Growth to be brought down sharply but not to the extent of making it below zero
- Soundness of banking and cautious capital account opening has saved the country
- Recovery possible in late 2009-10 or early 2010-11 provided the government is able to push through massive investment in social and physical infrastructure through public-private participation



Thank You.

Deepening Global Integration (Current Account & Capital Account as % GDP)



- Current account transactions rising from less than 20% of GDP to 50%
- Both current and capital account transactions from less than a third of GDP to over 115%