

Draft Report of the Sub-Group
on
Inflow of Foreign Savings:
Eleventh Five-Year Plan (2007-08 to 2011-12)

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Executive Summary

The Sub-Group noted that a comparison of alternative scenarios projected by the predecessor sub-group with the actual outcome for the Tenth Plan reveals that the divergent movement in current account was mainly due to large deviation in projected and actual invisible surplus. Consequently, the current account balance-GDP ratio for the Tenth Plan (first four years) witnessed a turn around into a surplus (0.5 per cent of GDP) as against a deficit target of (-)0.9 per cent in the baseline scenario and (-)2.8 per cent in the alternative scenario. Net capital flows also overshoot the Tenth Plan targets but the deviation was moderate. Some deviation was observed in respect of external assistance, portfolio flows and 'other' capital. The deviation in external assistance occurred on account of unanticipated prepayment of external debt during the Tenth Plan. As a whole, while capital inflows were broadly at the projected levels, large deviation occurred in the projections of current account balances.

The Current Account Deficit (CAD) as a proxy for foreign savings is a behavioural macroeconomic aggregate and is determined by a host of domestic and external factors. The present Sub-Group has attempted to estimate foreign savings from (i) demand side by working out the CAD, and (ii) financing side by detailed estimation of various components of capital flows. The baseline projections of CAD for the Eleventh Plan are based on the macroeconomic assumptions of 8 per cent real GDP growth and 5 per cent inflation rate. The estimated model indicates an average CAD-GDP ratio of 2.1 per cent under the baseline scenario. This level of CAD can be financed through the normal capital inflows.

Four alternative scenarios have also been worked out based on variation in GDP growth rate (7.0 per cent, 8.5 per cent and 9 per cent) and also considering the impact of high oil price (US \$ 80 per barrel as against US \$ 72.5 per barrel in the baseline scenario). As compared to the baseline scenario of CAD of 2.1 per cent, the CAD is estimated to be 1.4 per cent, 2.4 per cent, 3.2 per cent respectively with real GDP growth scenarios of 7 per cent, 8.5 per cent and 9 per cent respectively during the Eleventh Plan.. It may be mentioned that the higher CAD due to a rise in oil prices could be financed by capital flows. From the financing angle, the higher CAD under the scenario 9 per cent growth would pose problems in the terminal years of the Plan. Overall, although the average level of net capital flows under the different scenarios would be in the range of 3.1-3.5 per cent of GDP, stable capital flows would be relatively at lower levels, between 2.4-2.5 per cent of GDP. Thus, keeping in view the level of stable capital flows, it would be appropriate to contain the CAD in the range of 2.0-2.5 per cent of GDP so that it could be financed comfortably.

The above analysis underscores the fact that a higher trajectory of investment and growth can be achieved when inflow of foreign savings is accompanied by simultaneous improvement in domestic savings rate (as there are constraints to financing through foreign savings, imposed by the level of stable capital flows).

I. INTRODUCTION

In pursuance of the decisions at the first meeting of the 'Working Group to Estimate Savings for the Eleventh Five Year Plan' held on July 15, 2006, a 'Sub-Group on Inflows of Foreign Savings' was constituted. The composition of the Sub-Group and its terms of reference are given below.

I.1 Composition

I.1.1 The composition of the Sub-Group (after nominations** from different organizations) is as follows:

1. Sh. R.C. Srinivasan Senior Economic Adviser, Ministry of Finance, New Delhi	Convenor
2.. Dr. R. K. Pattnaik Adviser, Reserve Bank of India, Mumbai	Member
3. Dr. R. Kavita Rao Senior Fellow, NIPFP, New Delhi	Member
4. Dr. Archana Mathur Director, Planning Commission, New Delhi	Member
5. Dr. B.K. Bhoi Chief General Manager, SEBI, Mumbai	Member
6. Dr. Amitendu Palit Visiting Fellow, ICRIER, New Delhi	Member
7. Dr. Kanhaiya Singh Principal Economist, NCAER, New Delhi	Member
8. Dr. Abheek Barua Chief Economist, ABN AMRO Bank, Mumbai	Member
9. Sh. Bhupal Singh Assistant Adviser, Reserve Bank of India, Mumbai	Member- Secretary (Co-opted)

{**Nominations of Dr. Kavita Rao from NIPFP, of Dr. B.K.Bhoi from SEBI and of Dr. Archana Mathur from the Planning Commission were received; While no written response was received from Director General, NCAER, Dr.Kanhaiya Singh from NCAER attended the meetings of the Sub-Group}.

I.1.2 The Secretariat support to the Sub-Group was provided by the Division of International Finance, Department of Economic Analysis and Policy, Reserve Bank of India, Mumbai. The members of the Sub-Group wish to place on record the great diligence, dedication and technical ability displayed by the Secretariat officials *viz.*, Smt. Rekha Misra, Shri Bhupal Singh, Smt. Sangita Misra and Shri Harendra Behera of the Reserve Bank of India. The Sub-Group would also like to acknowledge the zealous contribution of Dr. R.K. Pattnaik of the RBI towards the work of the Sub-Group.

I.2 Terms of Reference

I.2.1 The following were the terms of reference of the Sub-Group:

- To review the developments and likely behavioural pattern during the 11th Plan period;
- To estimate flow of external aid and its components (loan/grant);
- To estimate the flow of foreign savings, through foreign direct investment, portfolio investment, suppliers' credit, external commercial borrowings and in terms of its categories (debt/equity) and its nature;
- To explain the procedures followed for estimation.

I.3 Broad Approach

I.3.1 The Group held three meetings on September 1, 2006, September 11, 2006 and September 25, 2006 (Annex 1). It was agreed during the first meeting that the RBI would be requested to provide the Secretariat support to the Sub-Group. Shri. Bhupal Singh of RBI was co-opted as the Member Secretary of the Sub Group.

I.3.2 In the first meeting of the Sub-Group, two methodological approaches (from demand and financing sides) were considered as relevant for projection of foreign savings. This was followed up in the subsequent meeting with the presentation of alternate estimates of projections of the relevant parameters. The approach of the Sub-Group was to derive estimates of foreign savings based on two approaches: (i) estimating current account deficit (CAD), and (ii) estimating net capital inflows. The members agreed that the Group would proceed with the model-based approach for projecting the CAD and the financing sources. It was also agreed that the trend approach could be used in respect of select parameters, if the results emerging from the model did not appear to fully capture the behaviour of the parameters.

II. CONCEPTUAL FRAMEWORK

II.1 Current Account of the Balance of Payments is considered the mirror image of the domestic saving-investment balance of the National Accounts framework. Developing countries strive to finance the predominant portion of domestic investment with domestic saving. Gaps between domestic savings and investments are financed by foreign savings, while simultaneously ensuring current account sustainability. The linkage between key aggregates of accounts of the total economy and balance of payments flows can be summarized by the use of symbols, within a savings-investment framework as follows:

$$Y = C + G + I + CAB$$

$$CAB = X - M + NY + NCT \quad (1)$$

(X-M = balance on goods and services in the balance of payments)

$$Y - C - G = I + CAB$$

$$I + CAB = S$$

$$S - I = CAB$$

where, Y = gross national product, C = private consumption expenditure, G = government consumption expenditure, I = gross domestic investment, S = gross saving, X = exports of goods and services, M = imports of goods and services, NY = net income from abroad, NCT = net current transfers, CAB = current account balance in the balance of payments.

II.2 The principle of double-entry book keeping used in balance of payments implies that the sum of all international transactions—current and capital and financial, including reserve assets—is in principle equal to zero. However, since data for balance of payments are often derived independently from different sources, implementation of the double-entry recording system is not perfect. As a result, typically, there are net credits or net debits (i.e., net errors and omissions in the accounts). *Assuming no errors or omissions, the balance of payments identity would signify that current account balance is necessarily equal (with sign reversed) to the net capital and financial account balance plus reserve asset transactions.*

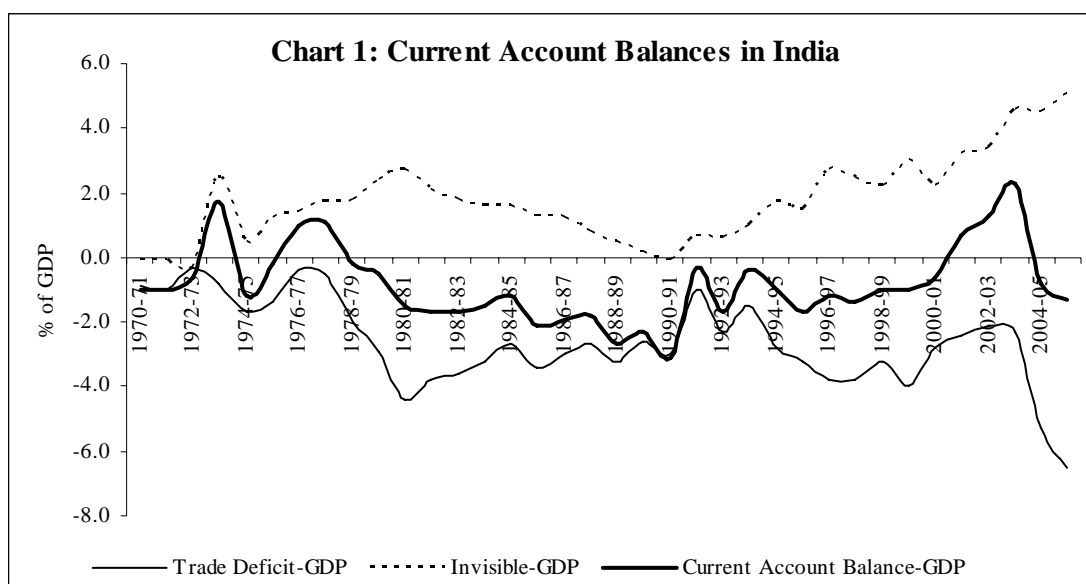
$$CAB = NKA + RT$$

NKA = net capital and financial account (i.e., all capital and financial transactions excluding reserve assets), and RT = reserve asset transactions.

II.3 The estimates of CAD can be worked out basically based on two approaches. First, setting the required rate of investment and savings and treating current account deficit (i.e., foreign savings) as a residual component. Second, in a framework of more open economy, the foreign savings being determined by a host of external and domestic factors. An extension of this approach could also be to measure the sustainable capital flows that an economy can attract for financing the current account deficits. Under a planned development approach, the target growth rate is fixed. Based on the target growth rate, with given incremental capital-output ratio (ICOR), the required rate of

investment can be worked out. After determining the required rate of investment and the targeted mobilization of gross domestic savings, the resultant gap is attempted to be mobilized through the foreign savings. In the Indian context, historically these savings have been mobilized in the past mainly through official debt flows.

II.4 With liberalization and greater influence of market forces in the growth of the economy, the above-mentioned approach to estimating foreign savings is presently not appropriate. In an increasingly market driven economy, as is the Indian case, the foreign transactions are determined by the market forces. In India, for example, while the trade deficit has been widening over time, the invisible balance is offsetting a large part of such deficits and reducing the size of the overall current account deficits, reflecting the comparative advantage of the economy in exports of software and other business services, as well as, buoyant inflows of remittances from the migrant Indian workers (Chart 1).



While services exports (e.g., exports of software and business services) are largely determined by the world demand conditions, services imports are determined by the pace of merchandise trade (*i.e.*, demand for trade related services such as transport, insurance and merchanting services) as well as the domestic demand for technology - related services emanating from increasing technological transformation of the economy and the modernization of Indian industry

II.5 Another approach for estimating foreign savings could be to examine the trends in foreign capital flows, since these represent the financing items of the CAD and mirror the foreign savings. This approach depends heavily on the presumption of autonomous nature of capital inflows for financing the CAD. This also entails looking at the trends in various components of capital flows viz., foreign direct investment, portfolio investment, external assistance, external commercial borrowings, trade credit, NRI deposits and other overseas borrowings by banks, which would provide the emerging

trend about the likely levels of foreign savings flows. However, within the conceptual framework of sustained autonomous capital flows to finance a given level of deficit, a distinction needs to be made between the short-term or volatile flows and the flows of durable nature.

II.6 The estimates of foreign savings can thus be worked out mainly through two approaches: (a) estimating the CAD, which implies the demand for foreign savings, and (b) estimating capital inflows, which represent the supply of foreign savings or in other words the financing sources of CAD. In an open and increasingly market-driven economy, (in the Indian case), the foreign savings proxied by CAD are determined by a host of external and domestic factors, financial variables and policy instruments. Hence, given the rapid integration of the Indian economy with global markets, the Sub-Group felt that it may be appropriate to consider a model-based approach for estimating the major components of CAD. A possible extension of this approach could also to use a combination of elasticities and underlying trends in various components of current and capital account of balance of payments.

III. REVIEW OF DEVELOPMENTS OF FOREIGN SAVINGS

III.1 Trends in foreign savings during the Plan periods

III.1.1 A review of the evolution of foreign savings during successive Plan periods suggests that a CAD of more than 2 per cent of GDP obtained only during the Second and Seventh plan periods (Table 1). A historical review of CAD in India reveals that expansion in economic activity, particularly during the Second, Third, Sixth and Seventh Plans was associated with higher financing through external sources which was reflected in larger CAD-GDP ratios. The CAD secularly narrowed down after the Seventh Plan and turned into a surplus during the Tenth Plan (first four years). Lower recourse to external sources of financing was due mainly to stagnation in investment rates. The developments during the Tenth Plan were distinct from those of the preceding Plans. During the Tenth Plan, despite a significant acceleration in investment and growth rates, current account surpluses were recorded, implying net external savings. This phenomenon can be partly explained by acceleration in the rate of domestic savings, which rose from 23.3 per cent in the Ninth Plan to 28.2 per cent in the Tenth Plan (first four years), aided by a turnaround in the public sector savings.

Table 1: Gross Domestic Savings, Capital Formation and Current Account Deficits

<i>Plan Period</i>	<i>Gross Domestic Savings*</i>	<i>Gross Domestic Capital Formation*</i>	<i>Saving - Investment Gap</i>	<i>Current Account Deficit**</i>
(1)	(2)	(3)	(4)	(5)
First Plan (1951-56)	9.9	10.3	-0.4	-0.1
Second Plan (1956-61)	11.7	14.5	-2.8	-2.3
Third Plan (1961-66)	13	15.4	-2.4	-1.7
Annual Plans (1966-69)	13.7	15.9	-2.2	-2
Fourth Plan (1969-74)	16.1	16.9	-0.8	-0.3
Fifth Plan (1974-79)	20.4	19.9	0.5	0.1
Annual Plan (1979-80)	21.6	22.1	-0.5	-0.5
Sixth Plan (1980-85)	19.4	20.9	-1.5	-1.5
Seventh Plan (1985-90)	20.8	23.1	-2.3	-2.2
Annual Plans (1990-92)	23.5	25.5	-2.0	-1.7
Eighth Plan (1992-97)	23.9	25.3	-1.4	-1.2
Ninth Plan (1997-02)	23.3	24.1	-0.8	-0.8
Tenth Plan (2002-07)***	28.2	27.6	0.6	0.5
2002-03	26.5	25.3	1.2	1.3
2003-04	28.9	27.2	1.7	2.3
2004-05	29.1	30.1	-1.0	-0.4
2005-06	-	-	-	-1.3

* Based on National Account Statistics.

** Based on Balance of Payments data.

*** Refers to only the first four years of the Plan

Source: Central Statistical Organization & Handbook of Statistics on Indian Economy, Reserve Bank of India

III.2 Developments during Ninth and Tenth Plans

III.2.1 A comparison of major components of the current account during the Ninth and the Tenth Plan periods (1992-2006) reveals that there has been a marked shift in the structure of the CAD and its components between two plans. There has been a rapid upward shift in the growth trajectory of both imports and exports (Table 2). Despite the widening trade deficit, emanating from high oil prices as well as strong import demand for capital goods, the current account showed a surplus due to robust growth in the invisible surplus led mainly by sharp growth in services exports and remittances from overseas Indians. As far as of CAD during the Tenth Plan, was concerned, the surge in capital inflows, coupled with current account surpluses resulted in heavy build up of foreign exchange reserves. Although FDI inflows did not show dramatic improvements, sharp acceleration in portfolio flows, along with noticeable pick up in NRI deposits, sustained the momentum in capital inflows. External commercial borrowings surged in the Tenth Plan period on account of rising appetite of the corporates for domestic capacity expansion fuelled by abundant global liquidity; the net inflows were moderate due to repayments of Resurgent India Bonds (RIBs) and India Millennium Deposits (IMDs). Surge in inflows in the form of portfolio inflows can be attributed to the pace of reforms and developments in the financial markets which have outpaced reforms in the real sectors of the economy.

<i>Items</i>	<i>Ninth Plan (1997-98 to 2001-02)</i>	<i>Tenth Plan* (2002-03 to 2006-07)</i>
(1)	(2)	(3)
Imports growth (%)#	3.1(12.1)	29.7(15.6)
Exports growth (%)#	5.9(8.9)	23.8(11.6)
Trade deficit (% to GDP)	-3.2	-4.0
Invisibles Surplus (% to GDP)	2.6	4.4
Current Account Balance (% to GDP)	-0.6	0.5
Net Capital Inflows (US \$ billion)		
FDI	3.2	3.6
NRI Deposits	1.7	2.1
External Commercial Borrowings	2.3	0.5
Portfolio Inflows	1.9	8.4
Total capital flows (net)	9.2	14.6
Reserves Accretion (US \$ billion)	6.6	20.8
* Covers only first four years		# Figures in parentheses are as per cent to GDP

III.2.2 An assessment of the estimates and the actual outcomes (during the first four years) for the Tenth Plan reveals that the actual growth in imports, exports and the levels of invisible surplus overshoot the plan targets by wide margins (Table 3).

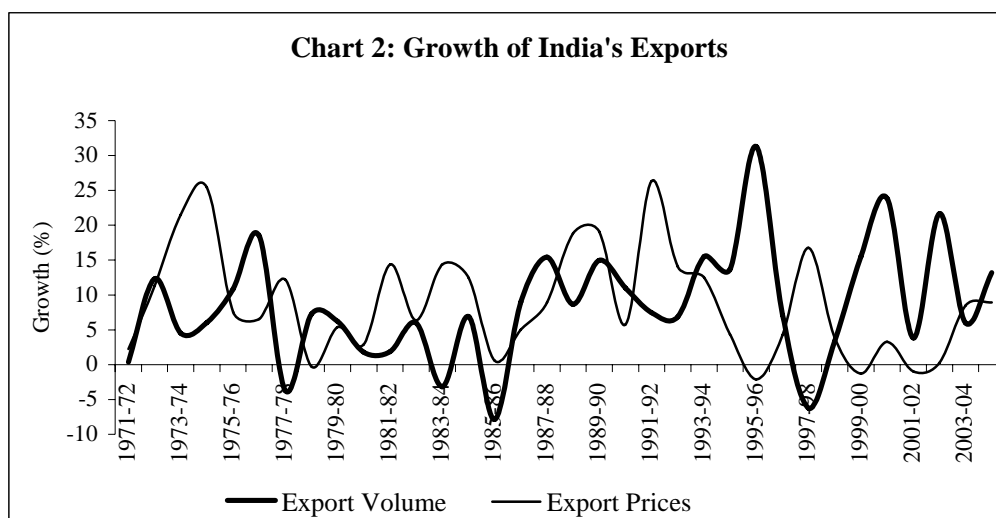
Table 3: Current Account Balance and Capital Inflows During Tenth Plan: Projections and Actuals			
<i>Items</i>	<i>Projections</i>		<i>Actual*</i>
	<i>Baseline</i>	<i>Alternative Scenario</i>	
(1)	(2)	(3)	(4)
Imports growth (%)	10.0	17.0	29.7
Exports growth (%)	11.0	14.0	23.8
Trade deficit (% to GDP)	-2.8	-4.4	-4.0
Invisibles Surplus (% to GDP)	1.9	1.6	4.4
Current Account Balance (% to GDP)	-0.9	-2.8	0.5
Net Capital Inflows (% to GDP)			
External Assistance	0.06	0.19	-0.16
FDI	0.58	0.64	0.55
NRI Deposits	0.32	0.39	0.35
External Commercial Borrowings	0.02	0.08	0.03
Portfolio Inflows	0.69	0.82	1.23
Other Capital Flows	0.12	0.15	1.12
Total Capital flows (net)	1.70	2.18	3.12
* First four years of the Tenth Plan for which data are available.			

III.2.3 A comparison of the projected alternative scenarios with the actual outcomes for the Tenth Plan reveals that the divergent movement in current account was mainly due to large deviation in projected and actual invisible surplus. Consequently, the CAD-GDP ratio for the Tenth Plan witnessed a turn around into a surplus (0.5 per cent) as against a deficit target of (-)0.9 per cent in the baseline scenario and (-)2.8 per cent in the alternative scenario. Net capital flows also overshoot the targets but the deviation was moderate. Some deviations were observed in respect of external assistance, portfolio flows and other capital flows. It may be mentioned that the deviation in external assistance occurred on account of unanticipated prepayment of external debt during the Tenth Plan. As a whole, while the projections of capital inflows appeared to be broadly consistent, large deviations occurred in respect of current account balances.

III.3 Trends in Current and Capital Accounts of Balance of Payments

III.3.1 Exports

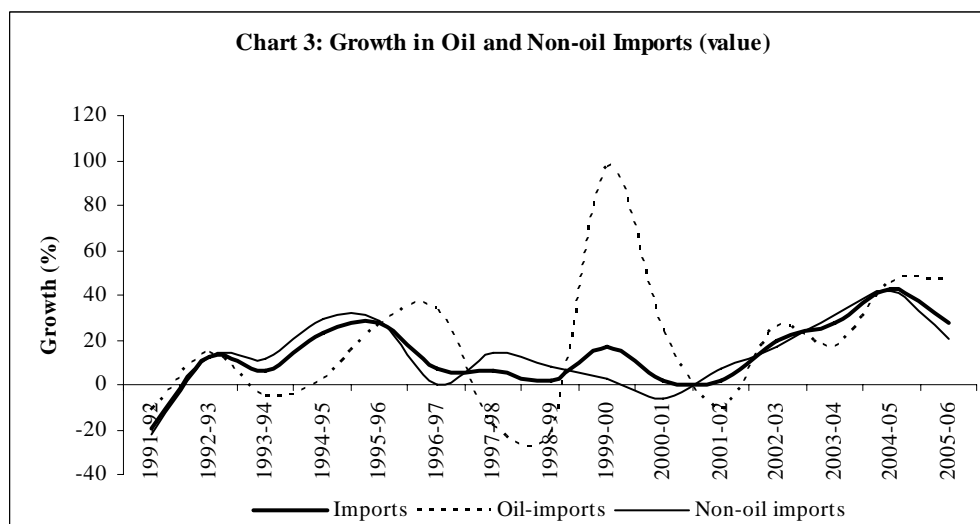
III.3.1.1 The trend in export volumes during the last three decades indicates a growth of about 11-12 per cent. The average underlying growth rate of export prices (UVI) has been about 5-6 per cent during the same period (Chart 2 and Annex Table 4).

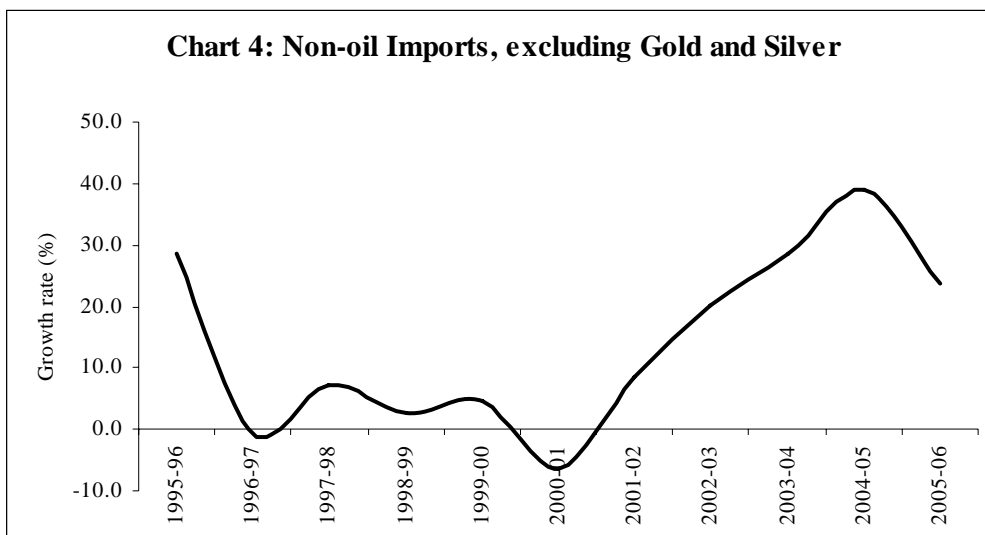


III.3.2 Imports

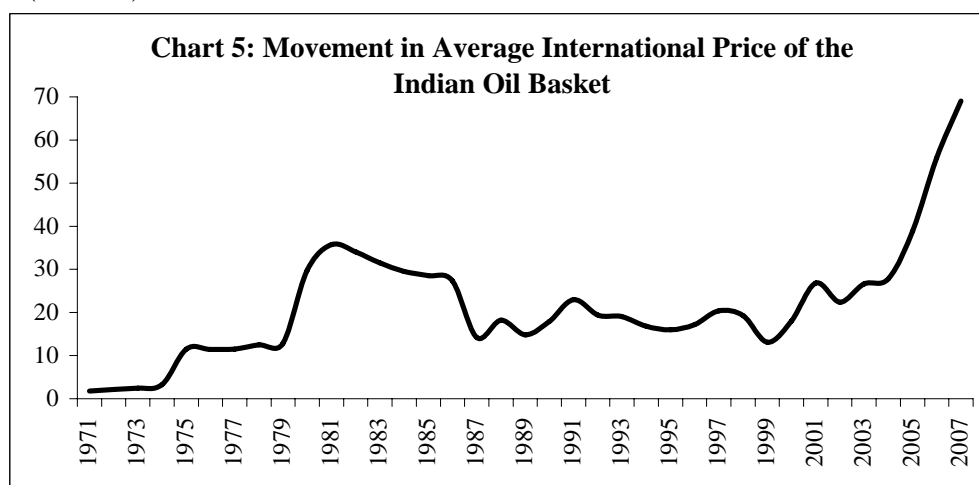
III.3.2.1 Within imports, while non-oil imports mainly signify the demand for capital and intermediate goods, oil imports represent the demand for POL products. The average growth in non-oil imports during the last four years has been around 28 per cent. Such high growth was previously achieved during the expansionary phase of the mid-1990s (Chart 3), following introduction of far reaching reforms.

III.3.2.2 The main components of non-oil imports comprise (i) gold and silver and (ii) non-oil imports excluding gold and silver, representing imports of capital goods and intermediates. The latter has seen a substantial rise since 2000-01, mainly owing to the pick up in industrial production (Chart 4).



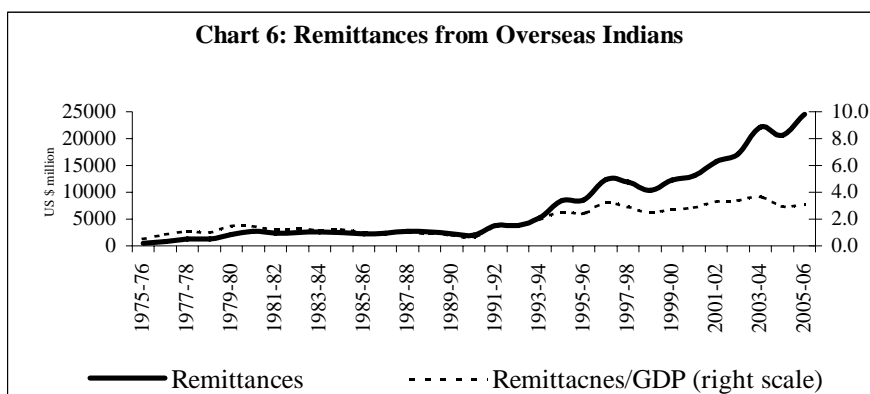


III.3.2.3 The share of oil imports have risen from 17.1 per cent of total imports during 1987-90 to 27.6 per cent in 2005-06. While the share and absolute value of these imports showed sharp fluctuations over the years, mainly on account of the large movements in international crude prices, the volume of such imports has grown significantly due to increase in domestic consumption and the stagnation in domestic crude oil production. The international oil price of the Indian basket is presently ruling at around US \$ 70 per barrel (Chart 5).



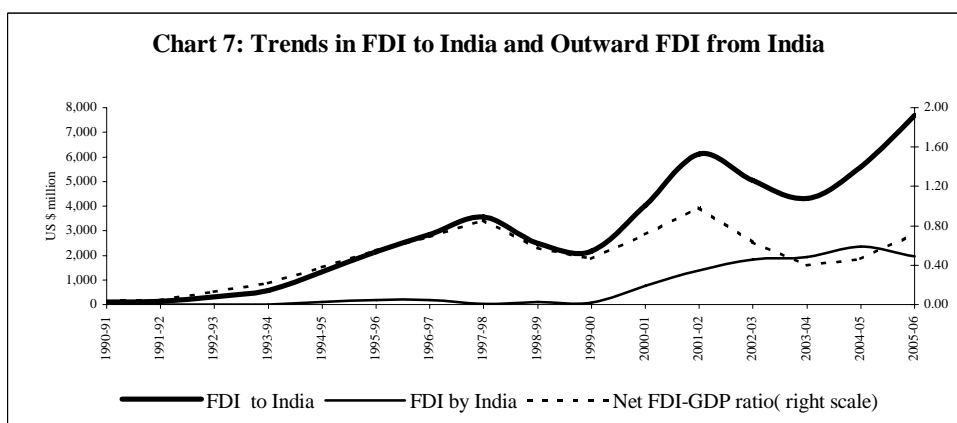
III.3.3 Invisibles

III.3.3.1 Over the years, invisible receipts have grown substantially mainly on account of steady growth in software exports, travel receipts and remittances (Annex Table 5). Private transfers (remittances from overseas Indians) have emerged as a stable source of financing observed to be stabilizing around 3 per cent of GDP (Chart 6 and Annex Table 6). Services payments on travel follow the trend in outbound tourism from India. Services imports have also gone up due to growing import of management and technology related services.



III.3.4 FDI

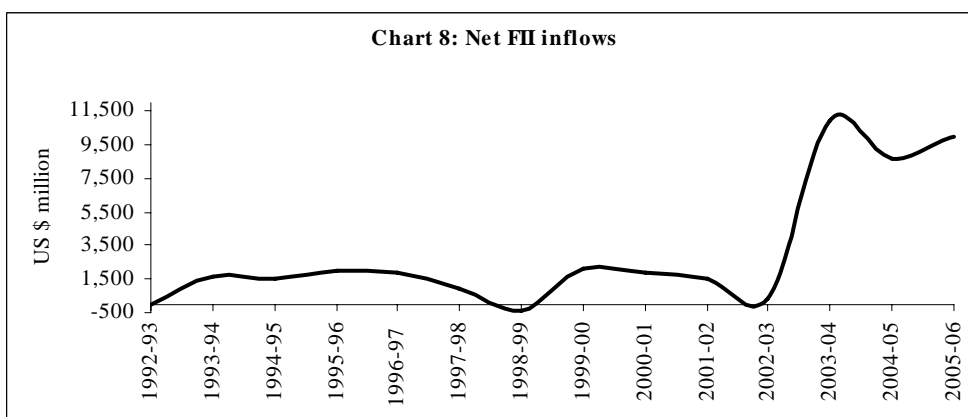
III.3.4.1 The share of FDI into India as a proportion to GDP has gone up from 0.2 per cent in 1993-94 to 1.0 per cent in 2005-06. Presently Overseas FDI by the Indian companies is 0.2 per cent of GDP (Chart 7 and Annex Table 7).



The cross country indicators of external sector viz. Exports, FDI, CAD, Reserve Adequacy are set out in Annex tables 8 through 10.

III.3.5 Portfolio Flows

III.3.5.1 There has been a quantum jump of portfolio flows into India during the last three years, which was roughly around US \$ 10 billion per year (Chart 8) (Annex Table 7).



IV. METHODOLOGY FOR ESTIMATION

IV.1 Modeling Current Account Balance

IV.4.1.1 The determination of foreign savings (CAD) over a medium term horizon in a more open macroeconomic framework can be examined in a model based approach. Projections for the current account balance have to be built upon a host of domestic and external macroeconomic indicators, financial variables and policy instruments. This would require estimating a combination of structural and behavioural relationships for the major components of foreign savings, broadly within the framework of current and capital account transactions. A brief discussion on the model-based approach to estimating foreign savings is set out below.

(i) Net exports of goods and services are conventionally regarded as injection of external demand supplementing aggregate domestic demand. In India, the typical situation is that, given the supply constraints, some part of domestic demand is satisfied externally, i.e., through imports. For countries with limited degree of external openness and continued reliance on sustainable current account targets, foreign capital inflows can meet the financing of net import demand and help in achieving other macro economic objectives such as reserve adequacy.

(ii) Beginning with the trade account, merchandise *exports* are postulated to be determined by world demand conditions (represented by world GDP), domestic export prices i.e., price faced by the foreign buyer, and the world export prices that generate the incentive for export production. The exchange rate effect on exports is captured by the variable of domestic export price (i.e., export prices deflated by nominal exchange rate).

$Exports = f(\text{World GDP}, \text{Domestic export price}, \text{world export price})$

(iii) With regard to the impact of Special Economic Zones (SEZs) on exports, it has been observed that the international standard in terms of gestation lag for SEZ investments is 4-5 years. In other words, such investments being planned /made at present would result in higher additional exports, earliest by 2010-11. The Sub- Group therefore felt that the impact of the SEZs presently being planned or set up, on additional export and import during the medium term might not be significant for the Eleventh plan period. Further, it is possible that some of the additional export capacity required to sustain the normal projections in exports could also be located in these SEZs, given the current fiscal incentives. For instance, the total projected increase in exports in 2010-11 is to the tune of USD 30,000 million, while the total full year impact of the SEZs is estimated at USD 5000 million, which can easily be subsumed into the former.

(iv) Import demand has been estimated separately for oil and non-oil imports. *Oil imports* are posited to be determined by non-agricultural GDP and crude oil prices.

Non-oil import demand is taken to be a function of manufacturing GDP¹, import prices and manufacturing WPI (to explain the relative attractiveness of imports *versus* domestic substitutes), and effective tariff (lower tariff rates are expected to result in higher imports).

Oil Imports = $f(\text{Non agricultural GDP, crude oil prices})$

Non-Oil Imports = $f(\text{Manufacturing GDP, import prices, Manufacturing WPI, Tariff})$

(v) *Private Transfers* reflects the income receipts from Indians staying abroad. These are assumed to be determined by one period lagged value and changes in exchange rates.

Net Pvt Transfers = $f(\text{US GDP, Net Pvt Transfers}\{-1\}, \text{exchange rate})$

(vi) *Services exports* (receipts) could be expected to increase with the increase in income of advanced countries as they can spend more on imports of software and other services. Further, the receipts will go down with the increase in exchange rates as the cost of services will increase for the foreigners. Thus:

Services Receipts = $f(\text{US GDP, exchange rate})$

(vii) *Services imports* will increase with the increase in domestic GDP and exchange rate depreciation.

Services Payments = $f(\text{GDP, exchange rate})$

(viii) *Investment income receipts* depend on the deployment of foreign currency assets (FCA) by the RBI. Thus, investment income receipts would be determined by the level of FCA and interest rate on medium term US Government bonds.

Investment Income Receipts = $f(\text{FCA, interest rate on US Govt. bond})$

(ix) *Investment income payments* represent the servicing of capital account transactions (both debt and non-debt) in the form of interest, profits and dividend. Therefore, Investment income payments will be determined by external debt and exchange rate as depreciating Indian rupee will increase the repayment liability in rupee terms.

Investment Income Payments = $f(\text{External Debt, exchange rate})$

(x) From the above behavioural equations the *invisibles, net*, can be calculated as:

Invisibles (net) = $\text{Net Pvt Transfers} + [\text{Services Receipts} - \text{Services Payments}] + [\text{Investment Income Receipts} - \text{Investment Income Payments}]$

(xi) Again, the current account balance is obtained through the following transformations:

$\text{CAB} = (X-M) + \text{Invisibles (net)}$

IV.2 Modelling Capital Inflows

IV.2.1 Net capital flows can also be modelled as a mirror of the external resource balance in the current account with an adjustment for changes in reserves and other

¹ Non-oil imports are closely linked to manufacturing GDP as a predominant part of non-oil imports in the form of capital goods and industrial raw materials which directly enter the manufacturing process.

transactions. An empirical exercise can be undertaken to estimate the major components of capital flows *e.g.*, foreign direct investment, external commercial borrowing and NRI deposits.

(i) *FDI inflows* were modelled to depend upon growth in domestic GDP, as the increase in domestic income due to better performance of different sectors, attract FDI to India.

$$\text{Inward FDI} = f(\text{Inward FDI } (-1), \text{ GDP})$$

(ii) *Non-resident deposits* depend upon the income of the Gulf countries (since a large proportion of these deposits are from the Gulf countries), and the interest rate differential between India and abroad.

$$\text{NRI Deposits} = f(\text{NRI } \{-1\}, \text{ Interest rate differential}, \text{ Gulf Income})$$

(iii) *External Commercial Borrowings* are hypothesized to depend upon rate of interest in India, debt service ratio and imports.

$$\text{ECB Inward} = f(\text{Debt service ratio}, \text{ Imports}, \text{ Rate of Interest})$$

(iv) Other components of capital flows *viz.*, External Assistance, portfolio flows, FDI outflows, Short term credit, non-NRI banking capital are estimated based on their trend.

(v) External assistance and ECB outflows follow the existing repayment schedule and also take into account the repayment for fresh borrowings.

The sample period for estimation of the model equations is 1970-71 to 2004-05 and annual data have been used. Certain equations are estimated with data from 1980-81 onwards due to non-availability of data on some of the variables.

V. ESTIMATION OF FOREIGN SAVINGS

The components of CAD and capital flows have been estimated based on the behavioural relationships enumerated in the previous section. The model estimates are presented in Annex 2. Using the coefficients derived from the estimations and based on certain assumptions with respect to the behaviour of the independent variables, the CAD and its sources of financing have been projected for the Plan period.

V.1 Projections: Baseline Scenario

V.1.1 *The major macroeconomic assumptions in the simulation are: (i) real GDP growth at 8 per cent, (ii) inflation rate at 5.0 per cent, and (iii) the average crude oil prices at US \$ 72.5 per barrel.* The assumptions on the other explanatory variables of the model are set out in Annex 3.

V.1 2 Based on the estimated model and taking into account the assumptions, the projections for the Eleventh Plan have been worked out. The projections of CAD are summarized in Table 4. Year wise details are set out in Annex-XIII Statement 1.

Table 4: Projections: Baseline Scenario Eleventh Plan (Averages for the Plan Period)		
<i>Items</i>	<i>Growth rate</i>	<i>% to GDP</i>
(1)	(2)	(3)
Export	17.8	15.3
Oil Imports	11.5	5.2
Non-oil Imports	20.1	17.7
Trade Balance		-7.5
Invisible Surplus		5.4
<i>of which : Pvt Transfers</i>	13.3	2.9
<i>Services</i>	23.9	3.5
<i>Investment Income</i>	21.0	0.9
Current Account Balance		-2.1

V.1.3 The projections of the components of capital flows are set out in Table 5.

Table 5: Net Capital Flow Projections: Baseline Scenario Eleventh Plan (Averages for the Plan Period)		
<i>Items</i>	<i>US \$ billion</i>	<i>% to GDP</i>
(1)	(2)	(3)
FDI, net	10.1	0.7
NRI deposits	8.7	0.6
ECBs/FCCBs	10.5	0.8
<i>of which: Disbursement</i>	20.0	1.5
<i>Repayments</i>	9.5	0.7
Portfolio	7.9	0.6
External Assistance, net	1.6	0.1
Non-NRI Banking Capital	2.1	0.2
Short Term Credit, net	2.8	0.2
Net Capital Flows	43.7	3.2
<i>Memo:</i>		
Stable Flows*	33.0	2.4

*Stable flows are defined to represent all capital flows excluding portfolio flows and short-term credits.

Under the baseline scenario, with average trade deficit of 7.5 of GDP for the Eleventh Plan, CAD would be 2.1 per cent of GDP. From the financing side, this level of CAD would be comfortably financed by the stable capital flows, which is estimated to be around 2.4 per cent of GDP.

V.2 Projections: Alternative Scenario

V.2.1 Under the first *alternative scenario (Scenario I)*, the average annual real GDP growth is projected to moderate to 7 per cent (lower than the baseline scenario). It is observed that the CAD declines to about 1.4 per cent of GDP. This level of CAD can be comfortably financed by the stable flows which are placed at 2.4 per cent of GDP. (Table 6 & 7). { Year wise details are given in Annex-XIII Statement 2 }.

V.2.2 The *alternative scenarios (Scenarios II and III)* assume that the Indian economy would exhibit higher GDP growth rates of 8.5 per cent and 9.0 per cent respectively, on an average, during the Plan period; other things remaining constant, higher GDP growth would lead to higher imports, higher trade deficit and higher CAD. This may result in the CAD-GDP ratio rising to 2.4 per cent under Scenario II and further to 3.2 per cent under Scenario III (Table 6). The alternatives considered indicate that capital flows would be able to finance the projected CAD. However, it needs to be mentioned that out of the total net capital inflows of 3.4-3.5 per cent of GDP under these alternative scenarios, the stable flows could be only to the extent of 2.4-2.5 per cent of GDP. Under the scenario of 9.0 per cent growth of the economy, CAD is projected at 3.2 per cent of GDP which is close to the projected total capital flows. The stable flows (2.5 per cent of GDP) in this scenario are much below the projected CAD, and as such even a small shortfall in any of the components of capital flows would make the financing precarious (Table 7). Year wise details on CAD and capital flow

projections under Scenario II and III are set out in Annex-XIII Statement 3 and 4 respectively.

V.2.3 Under *alternative scenario IV*, it is assumed that the global oil demand continues to remain steady and demand-supply imbalances persist over the medium-term. As a result oil prices steadily rise from the present level of around US \$ 68 per barrel to US \$ 85 per barrel by the terminal year of the Plan *with the average price for the Plan period at US \$ 80 per barrel*. Other things remaining constant, acceleration in oil prices would lead to expansion in trade deficit and consequently the CAD-GDP ratio could rise to 2.5 per cent from 2.1 per cent in the baseline scenario. However, the capital flows would be able to finance the CAD (Table 6 & 7). Year wise details are given in Annex-XIII Statement 5.

Table 6: Projections: Alternative Scenarios for the Eleventh Plan				
(Averages for the Plan Period)				
Items	Scenario I GDP 7.0%	Scenario II GDP 8.5%	Scenario III GDP 9.0%	Scenario IV Oil \$80pb
(1)	(2)	(3)	(4)	(5)
Real GDP Growth Rate(%)	7.0	8.5	9.0	8.0
Average Inflation Rate (%)	5.0	5.0	5.0	5.0
Crude Prices, Indian Basket (US\$ pb)	72.5	72.5	72.5	80.0
Exports	15.7(17.8)	15.1(17.8)	14.9(17.8)	15.3(17.8)
Oil Import	5.3(11.3)	5.1(11.7)	5.1(11.8)	5.5(13.7)
Non-oil Import	17.8(19.2)	17.8(20.7)	18.4(21.9)	17.7(20.1)
Trade Balance/GDP(%)	-7.3	-7.8	-8.4	-7.9
Invisible Balance/GDP(%)	5.9	5.4	5.2	5.4
<i>of which : Pvt Transfers</i>	3.0 (13.3)	3.0 (13.3)	3.0 (13.8)	3.0 (13.3)
<i>Services</i>	3.8(26.9)	3.4(22.0)	3.3(22.0)	3.4(23.9)
<i>Investment Income</i>	0.9(21)	0.9(21)	0.9(21)	0.9(21)
Current Account Balance/GDP (%)	-1.4	-2.4	-3.2	-2.5

Note: 1. Figures in brackets are growth rates.

2. Under scenario I, invisible balance marginally rises due to high elasticity of services imports to GDP (2.5). Thus, with a moderation in real GDP growth, services demand slows down and payments decline more than proportionally.

**Table 7: Net Capital Flow Estimates 2007-08 to 2011-12: Alternative Scenarios
(Averages for the Plan Period)**

Items	Scenario I GDP 7.0%		Scenario II GDP 8.5%		Scenario III GDP 9.0%		Scenario IV Oil \$80pb	
	US \$ billion	% to GDP	US \$ billion	% to GDP	US \$ billion	% to GDP	US \$ billion	% to GDP
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
FDI, net	9.8	0.7	10.4	0.8	11.2	0.8	10.1	0.7
NRI deposits	8.7	0.6	8.7	0.6	8.7	0.6	8.7	0.6
ECBs/FCCBs	10.5	0.8	10.5	0.8	10.5	0.8	10.5	0.8
<i>of which: Disbursement</i>	20.0	1.5	20.0	1.5	20.0	1.5	20.0	1.5
<i>Repayment</i>	9.5	0.7	9.5	0.7	9.5	0.7	9.5	0.7
Portfolio	7.1	0.5	9.0	0.7	10.1	0.8	7.9	0.6
External Assistance, net	1.6	0.1	1.6	0.1	1.6	0.1	1.6	0.1
Non-NRI Banking Capital	2.1	0.2	2.1	0.2	2.1	0.2	2.1	0.2
Short Term Credit, net	2.8	0.2	2.8	0.2	2.8	0.2	2.8	0.2
Net Capital Flows	42.6	3.1	45.1	3.4	47.0	3.5	43.7	3.2
<i>Memo:</i>								
Stable Flows*	32.7	2.4	33.3	2.5	34.2	2.5	33.0	2.4

* Stable flows are defined to represent all capital flows excluding portfolio flows and short-term credits.

VI. SUSTAINABILITY OF CURRENT ACCOUNT DEFICITS: ISSUES AND OPTIONS

VI.1 Issues in Sustainability of CAD

VI.1.1 While estimating the magnitude of foreign savings as a financing component of gross domestic capital formation, it is important to consider whether the desired level of foreign savings is consistent with the medium-term sustainability of the external sector. More precisely, the upper bound of the foreign savings desirable from the viewpoint of higher output growth is to be determined by the sustainable level of the CAD for an economy. While it is argued that a CAD-GDP ratio above 5 per cent is a cause for alarm (Summers, 1996), there is also the view that this is a cause for concern if the deficit is financed by short-term debt (Milesi-Ferreti and Razin, 1996). A large CAD emanating from high investment growth may not be particularly inimical to growth (Bruno, 1995); another view, however, is that any CAD above a threshold level is an early warning of impending crisis.

VI.1.2 Beyond the size, the composition of the financing pattern of current account also matters for sustainability. Capital flows with higher foreign direct investment (FDI) content can ensure sustainability even if the CAD-GDP ratio is relatively high. Furthermore, it is also contended that while FDI raises the domestic investment rate, the positive direct and indirect effects of FDI on domestic savings in reality lead to an improvement in the CAD in the long-run. The recent experience of Australia and New Zealand bears this out. While global financial integration does have beneficial impact, it is also argued that the higher dependence on volatile capital flows can cause instability, especially if a country is short of the threshold. Many emerging market economies do not seem to have adequate self-correcting market mechanisms in respect of such cross-border capital flows, which, at critical times, reflect more of changes in the risk appetite of the international investors than a country's fundamentals.

VI.1.3 In India, in the wake of the 1991 balance of payments crisis, the issue of a sustainable current account deficit assumed crucial significance from an operational point of view. The High Level Committee on Balance of Payments (Chairman: Dr.C. Rangarajan) recommended a CAD-GDP ratio of 1.6 per cent. The estimates of long-run sustainability for India reveal that a current account deficit in the range of 1.5 to 2.5 per cent of GDP could be consistent with the stabilisation of India's net external liabilities to GDP ratio (Callen and Cashin, 1999). The Committee on Fuller Capital Account Convertibility (Chairman: Sh.S.S.Tarapore, 2006) has indicated that a CAD-GDP ratio of 3 per cent could be comfortably financed ;and as the ratio rises substantially above 3 per cent, there would be a need for policy intervention. While the literature suggests that a CAD-GDP ratio of about 5 per cent should be a cause for concern, in the Indian case, however, a current account deficit of a little above 3 per cent of GDP had in the past triggered off a payments crisis. Furthermore, while anchoring on the foreign savings for financing growth, it is important to recognize the need for balance between the stable and

volatile flows as financing items of the CAD. The sustainability of the current account should be increasingly viewed as consistent with the volume of capital flows, which are durable and of long-term in nature. The substitution of debt by non-debt flows gives room for manoeuvre since debt flows can be raised in the event of a sustained pick up in the demand for external resources, without destabilising debt-GDP ratio. When non-debt creating flows are dominating, the emphasis should be on greater inflow of more durable nature such as foreign direct investment. The higher recourse to financing investment through foreign savings has to recognize these important dimensions of capital flows.

VI.1.4 The tolerance of the current account deficit should also be seen in the light of a number of indicators.

(i) *First*, the size of current receipts (CR) to GDP ratio, as this is the crucial determinant of the ability of the economy to make current payments and meet servicing of external debt. As CR/GDP ratio rises, it would be possible for the economy to expand the CAD/GDP ratio without rendering the external debt unsustainable. Since the mid-1990s, there has been a steady improvement in CR-GDP ratio from 8 per cent in 1990-91 to 24.5 per cent in 2005-06, indicating that a relatively higher current account deficit can be sustained.

(ii) *Second*, another important indicator is the debt service ratio (DSR). It may be noted that DSR for India has steadily fallen from a high of 35 per cent in 1990-91 to 16 per cent in 2000-01 and has reached the level of 10 per cent in 2005-06.

(iii) *Third*, broadly speaking stable capital flows to India have been around 3 per cent of GDP, which have been able to meet the financing requirements of CAD. Furthermore, the composition of capital flows has shifted in favour of non-debt creating flows. However, the share of volatile flows has also risen.

VI.2 Financing of CAD

VI.2.1 Foreign savings should not be construed as a residual item for financing of domestic investment and growth. It needs to be recognized that the CAD as a proxy for foreign savings, is a behavioural macroeconomic aggregate and is determined by a host of domestic and external factors. In the exercise attempted above, the baseline estimates yield an average current account deficit of 2.1 per cent of GDP for the Eleventh Plan period, with 8 per cent targeted growth rate. Given the projections of capital flows under the baseline scenario, the level of deficits can be financed broadly through the stable type of capital flows. However, a level of CAD higher than this may have to be financed by more volatile capital flows, which may raise the risk of servicing such liabilities in the case of a sudden reversal in flows. Contextually, the Committee on Fuller Capital Account Convertibility (CFCAC), 2006, has observed, “*Viability of a CAD is a function of the availability of normal capital flows, as opposed to exceptional financing*”.

VI.2.2 In a situation where global oil demand continues to remain steady and demand-supply imbalances persist over the medium-term and the oil prices rise further, the CAD may worsen from the projected baseline levels. If oil prices steadily rise to an average of US \$ 80 per barrel, other things remaining constant, acceleration in oil prices would lead to expansion in trade deficit and consequently the CAD-GDP ratio would rise to 2.5 per cent, which would marginally outstrip the stable flows placed at 2.4 per cent of GDP.

VI.2.3 The above estimates of capital flows have been worked out broadly against a stable global economic environment. These are also to be seen in the context of global business/trade cycles and the associated risks. The expansionary phase in the global business cycle has been continuing beyond the expected duration of the cycle and apprehensions have been raised about the sustainability of the expansionary phase with high oil prices and persisting large global imbalances. These developments could influence India's export demand as well as capital inflows into the country, due to risk re-pricing to emerging markets. These factors pose constraints to financing higher levels of CAD over the medium-term.

VI.3 Options

VI.3.1 The following are the options in order to finance a higher level of CAD:

(i) *First*, higher level of financing could be done through recourse to more durable flows such as FDI, which may be dependent on policy initiatives. Herein it must be emphasized that policy induced durable flows, particularly FDI inflows could also be contingent on a number of regulatory and sectoral reforms in the real sector to enhance the absorptive capacity of the economy and make the investment climate attractive to foreign investors.

(ii) *Second*, higher level of CAD beyond the levels emerging from the baseline estimates could be financed by volatile flows, which could be in the form of higher portfolio flows, particularly FII flows and short term credits. Portfolio flows can be attracted with longer term interest of the foreign investors through reforms focused on the debt market and adherence to the targets of fiscal consolidation. Portfolio flows may increase significantly with reforms in corporate debt market.

(iii) *Third*, the level of CAD consistent with the normal trend in other macroeconomic and external developments poses a constraint/limit to the extent of financing through external sources. Thus, a higher trajectory of investment and growth can be achieved through simultaneous improvement in domestic savings rate as there are constraints to financing through foreign savings.

VII. CONCLUDING OBSERVATIONS

VII.1 The baseline projections of CAD for the Eleventh Plan are made on the macroeconomic assumptions of 8 per cent GDP growth and 5 per cent inflation rate. The estimated model indicates an average CAD-GDP ratio of 2.1 per cent under the baseline scenario. This level of CAD can be financed through the normal capital inflows. Four alternative scenarios worked out to assess the impact of high oil price (US \$ 80 per barrel as against US \$ 72.5 per barrel in the baseline) and variation in GDP growth rate (7.0 per cent, 8.5 per cent and 9 per cent) indicate, that the CAD could be works out in the range of 1.4 to 3.2 per cent of GDP.

VII.2 It may be mentioned that the higher CAD due to a rise in oil prices can be financed by capital flows. From the financing angle, the higher CAD under the scenario 9 per cent growth would pose problems in the last two years of the Plan. Overall, although the average level of net capital flows under the different scenarios would be 3.1-3.5 per cent of GDP, the stable capital flows would be relatively lower ranging between 2.4-2.5 per cent of GDP. Thus, keeping in view the level of stable capital flows, it would be appropriate to contain the CAD in the range of 2.0-2.5 per cent of GDP so that the same can be financed comfortably. It needs to be recognised that higher GDP growth would entail the need to raise the level of FDI inflows to a level of around 1.5 per cent of GDP from the present level of 0.6 per cent of GDP.

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IX. Annex 1: Proceedings of the Sub Group

First Meeting of the Sub-Group on Inflow of Foreign Savings – Eleventh Five-Year Plan 2007-08 to 2011-12, held on September 1, 2006

The first meeting of the Sub-Group was held on September 1, 2006 at the Ministry of Finance at New Delhi. To serve as a background to the work of the Sub-Group, reference was also invited to the material circulated at the meeting, viz, the extract from the report of the similar group for the X Plan, extracts from the Planning Commission Document on the Approach to the XI Plan as well as the BoP picture in the last four years. In the light of the above, it was suggested that the Group may consider the methodology to be adopted, particularly in the light of the CAD and BoP items. The Sub- Group discussed the approach to be followed and considered that it was important to keep the sustainability angle to the CAD level consistent with the growth of the economy and that a bottoms-up approach should also be factored in, in respect of the various items in the BoP. After discussions, the following points were agreed in the meeting:

- It was agreed that the RBI would provide the Secretariat to the Sub-Group and it was also agreed to co-opt Shri Bhupal Singh, Assistant Adviser, RBI as Member Secretary.
- The Sub-Group deliberated on the various issues to be identified and decided that the Group should go beyond the work done in the context of the Tenth Plan. The approach of the Sub-Group would be to derive estimates of foreign savings based on two approaches: (i) projecting Current Account Deficit (CAD), and (ii) projections from the financing side.
- CAD would be first projected based on assumptions of the baseline scenario regarding exports, imports (oil and non-oil), services and current transfers and income. Side by side, an alternative scenario would also be considered for the consistency angle through changes in the assumptions such as GDP growth and exports, imports etc.
- It was also discussed that the CAD emerging from the baseline scenario is to be seen from the viewpoint of sustainability in terms of indicators such as debt service ratio (DSR) and current receipts-GDP ratio.
- The projections from the financing side would focus on projections on individual components of capital account such as foreign direct investment (FDI), portfolio investment, external commercial borrowings (ECBs), external assistance, banking capital and rupee debt service.
- It was decided that the various members/ representatives would send the required material to the Member- Secretary latest by September 6, 2006 preferably by email.

The Sub-Group, keeping in view the deadline set for the submission of the Report, decided to hold the next meeting on September 11, 2006 at RBI, Mumbai to discuss the projections worked out on the basis of inputs to be provided by the members.

Meeting of the Sub-Group held on September 1, 2006-List of Members/invitees who attended

1. Shri R.C. Srinivasan, Senior Economic Adviser – Convenor
2. Dr. R.K. Pattnaik, Adviser, RBI
3. Dr. R. Kavita Rao, Senior Fellow, NIPFP
4. Dr. Archana Mathur, Director, Planning Commission
5. Dr. Kanhaiya Singh, Principal Economist, NCAER
6. Shri B.K. Bhoi, CGM, SEBI
7. Dr. Abheek Barua, Chief Economist, ABN Amro Bank, Mumbai
8. Shri Bhupal Singh, Assistant Adviser, RBI
9. Dr. K.L. Prasad, Additional Economic Adviser, DEA
10. Shri S.V.S. Dixit, OSD(EDMU), DEA
11. Ms. Ishita Tripathy, Assistant Adviser, EDMU, DEA
12. Shri J.K. Rathee, EO, DEA

Second Meeting of the Sub-Group on Inflow of Foreign Savings – Eleventh Five Year Plan 2007-08 to 2011-12, held on September 11, 2006

The second meeting of the Sub-Group was held on September 11, 2006 at RBI, CO, Mumbai.

Main Points of Discussion

The following were the major discussions points agreed in the meeting.

- The approach of the Sub-Group for estimating foreign savings based on two approaches: (i) projecting current account deficit (CAD), and (ii) projections from the financing side was discussed in details.
- The projections of CAD as well its financing, which were carried out by the Secretariat of the Sub-Group with inputs from the members of the Group, were discussed in detail.
- Suggestions were given by the members regarding modeling of some of the components of current and capital account transactions.

Action Plan

The following main action points emerged from the meeting.

- The model-based approach would be explained in some more detail.
- It was agreed that the Secretariat would incorporate in the model-based approach projections of some items such as FII inflows and invisibles.
- The projections on FII inflows and the composition into volatile and non-volatile to be worked out.
- From the financing side two scenarios would be worked out: (i) base line and (ii) policy induced scenario.

List of Members/invitees who attended the second meeting on September, 11, 2006

1. Shri R.C. Srinivasan, Senior Economic Adviser – Convener
2. Dr. R.K. Pattnaik, Adviser, RBI, Mumbai, Member
3. Dr. R. Kavita Rao, Senior Fellow, NIPFP, Delhi, Memembr
4. Dr. Archana Mathur, Director, planning Commission
5. Dr. Abheek Barua, Chief Economist, ABN Amro Bank, Mumbai, Member
6. Shri Bhupal Singh, Assistant Adviser, RBI, Mumbai, Member Secretary
7. Smt. Rekha Misra, Assistant Adviser, RBI, Mumbai
8. Smt. Sangita Misra, Research Officer, RBI, Mumbai
9. Shri Harendra Behera, Research Officer, RBI, Mumbai

Third Meeting of the Sub-Group on Inflow of Foreign Savings – Eleventh Five Year Plan 2007-08 to 2011-12 held on September 25,2006

The Third meeting of the Sub-Group on Inflow of Foreign Savings – Eleventh Five Year Plan 2007-08 to 2011-12 was held on September 25, 2006 at the Ministry of Finance, New Delhi. The meeting was chaired by Shri R.C. Srinivasan, Senior Economic Adviser, Ministry of Finance (MOF), Government of India, who is Convener of the Group. The meeting was attended by the members of the Sub-Group. The list of participants is enclosed in Annex 1.

Main Points of Discussion

The following were the major discussions points and work plan agreed in the meeting.

- The draft report of the Sub-Group entitled " Report of the Sub-Group on Inflow of Foreign Savings: Eleventh Five-Year Plan (2007-08 to 2011-12)" circulated earlier was discussed in the meeting.
- The members noted that a model based approach was evolved which could form the basis for future projections of the relevant components germane to the work particularly for projecting the current account deficit and the financing sources.
- Suggestions were given by the members regarding modifications in the estimation of some of the components of current and capital account transactions.
- It was agreed that unit root test could be reported for residuals.
- Reference to SEZ could be considered for inclusion
- The secretariat would take into account the suggestions and would send the modified draft report to the Convenor for circulation latest by 28 September, so that based on the feedback received from members, the Report is submitted to RBI as per the time frame given to the Sub- Group.

List of Members/invitees who attended the Third Meeting on September 25, 2006

1. Shri R.C. Srinivasan, Senior Economic Adviser, DEA, MOF – Convenor
2. Dr. R.K. Pattnaik, Adviser, RBI, Mumbai, Member
3. Dr. Kanhaiya Singh, Principal Economist, NCAER, New Delhi
4. Dr. R. Kavita Rao, Senior Fellow, NIPFP, Delhi, Member
5. Dr. Archana S. Mathur, Director, Planning Commission, New Delhi, Member
6. Dr. B.K. Bhoi, Member, Chief General Manager, SEBI, Mumbai, Member
7. Shri Amitendu Palit, Visiting Fellow, ICRIER, New Delhi, Member
8. Shri Bhupal Singh, Assistant Adviser, RBI, Mumbai, Member Secretary
9. Dr. K.L. Prasad, Additional Economic Adviser, DEA, MOF
10. Shri. SVS Dixit, OSD, EDMU, DEA, MOF
11. Shri Harendra Behera, Research Officer, RBI, Mumbai

X. Annex 2: Estimation of the Model-Empirical Results

The results of estimated equations are reported below:

(1) Merchandise Exports

$$\text{Ln REXPT} = -10.71 + 0.82 \text{ Ln REXPT}\{-1\} - 0.38 \text{ LnDEXPRICE} + 1.62 \text{ LnWEXPRICE} + 0.50 \text{ LnWGDP} + 0.12 \text{ DUMX}$$

$$(3.02)^{***} \quad (8.65)^{***} \quad (-2.59)^{**} \quad (2.46)^{**} \quad (3.19)^{***} \quad (8.65)^{***}$$

$$\bar{R}^2 = 0.99 \quad h = 1.50 \quad \text{SEE} = 0.06$$

$$\text{ADF} = -3.73^{**} \quad (0.01) \quad \text{PP} = -5.96^{***} \quad (0.00)$$

(2.1) Non-Oil Imports

$$\text{Ln RIMnoil} = -11.92 - 1.01 \text{ Ln UVIM} + 0.76 \text{ Ln WPIImfg} + 1.68 \text{ Ln GDPmfg} - 0.10 \text{ Tariff}$$

$$(-6.72)^{***} \quad (-5.63)^{***} \quad (2.99)^{***} \quad (7.39)^{***} \quad (-2.30)^{**}$$

$$\bar{R}^2 = 0.99 \quad \text{DW} = 1.66 \quad \text{SEE} = 0.08$$

$$\text{ADF} = -5.13^{***} \quad (0.00) \quad \text{PP} = -3.92^{***} \quad (0.01)$$

(2.2) Oil Imports

$$\text{Ln RIMoil} = -2.60 - 0.12 \text{ Ln OILPRICE} + 0.29 \text{ Ln GDPnag} + 0.77 \text{ LnRIMoil}\{-1\}$$

$$(-1.87)^* \quad (-2.18)^{**} \quad (2.33)^{***} \quad (-7.36)^{***}$$

$$\bar{R}^2 = 0.99 \quad h = 2.1 \quad \text{SEE} = 0.06$$

$$\text{ADF} = -4.95^{***} \quad (0.00) \quad \text{PP} = -4.95^{***} \quad (0.00)$$

where,

- REXPT = Export volume (exports in rupee terms deflated by export prices)
- DEXPRICE = Domestic export price (index of unit value of exports deflated by a nominal exchange rate index)
- WGDP = World GDP
- WEXPRICE = World export price (unit value index in US dollar terms)
- RIMnoil = Real non-oil imports (non-oil imports in rupees deflated by unit value index of import prices)
- RIMoil = Real oil imports (oil imports in rupees deflated by unit value index of oil import prices)
- GDPnag = Gross domestic product of non agricultural sector
- OILPRICE = Crude Oil Prices (US \$ per barrel)
- Tariff = Effective Tariff rates (computed as a ratio of custom duties to total import value)
- UVIM = Unit Value Index of imports
- WPIImfg = WPI of Manufacturing goods
- GDPmfg = Gross domestic product at factor cost of the manufacturing sector
- DUMX = Dummy for high growth phases in the exports
- DUM83 = Dummy for high oil imports due to oil shock in 1982-83

(3) Services Exports

$$\text{Ln SERVREC} = -56.75 + 4.45 \text{ Ln USGDP} - 1.36 \text{ Ln EXCHRATE}$$

$$(-13.27)^{***} \quad (14.26)^{***} \quad (-6.49)^{***}$$

$$\bar{R}^2 = 0.97 \quad \text{DW} = 1.05 \quad \text{SEE} = 0.49$$

$$\text{ADF} = -3.97^{***} \quad (0.00) \quad \text{PP} = -3.52^{**} \quad (0.02)$$

(4) Services Imports

$$\text{Ln SERVPAY} = -28.75 + 1.98 \text{ Ln EXCHRATE} + 2.51 \text{ Ln GDPnag}$$

$$(-13.74)^{***} \quad (32.64)^{***} \quad (15.55)^{***}$$

$$\bar{R}^2 = 0.98 \quad \text{DW} = 2.2 \quad \text{SEE} = 0.14$$

$$\text{ADF} = -4.40^{***} \quad (0.00) \quad \text{PP} = -6.22^{***} \quad (0.00)$$

where,

SERVREC = Services Receipts;
SERVPAY = Services Payments;
EXCHRATE = Exchange rate (rupees per US dollar);
GDP = Gross domestic product at factor cost;
USGDP = Gross domestic product of US.

(5) Private Transfers (Remittances from Overseas Indians)

$$\text{Ln NPVTTR} = -16.79 + 0.45 \text{ Ln NPVTTR}(-1) + 1.38 \text{ Ln USGDP} - 0.46 \text{ DUM91}$$

(-2.74)**
(2.37)**
(2.83)**
(-2.38)**

$$\bar{R}^2 = 0.96 \quad h = -1.09 \quad \text{SEE} = 0.16$$

$$\text{ADF} = -3.90^{**}(0.01) \quad \text{PP} = -3.88^{**}(0.01)$$

where,

NPVTTR = Net Pvt Transfer;
EXCHRATE = Exchange rate (rupees per US dollar).
DUM91 = A dummy variable for negative shock during the Gulf crisis.

(6) Investment Income

Receipts

$$\text{Ln INVINRT} = -0.47 + 0.57 \text{ Ln INVINRT}\{-1\} + 0.31 \text{ Ln FCA} + 0.05 \text{ Ln USGBMED} + 0.38 \text{ DUM93}$$

(-0.62)
(5.69)***
(2.32)***
(2.14)**
(1.74)*

$$\bar{R}^2 = 0.97 \quad h = 0.41 \quad \text{SEE} = 0.23$$

$$\text{ADF} = -4.97^{***}(0.00) \quad \text{PP} = -5.08^{***}(0.00)$$

Payments

$$\text{Ln INVINPT} = -3.31 + 0.88 \text{ Ln EXCHRATE} + 0.76 \text{ Ln EXDEBT}$$

(-4.22)***
(3.02)**
(5.63)***

$$\bar{R}^2 = 0.99 \quad \text{DW} = 1.96 \quad \text{SEE} = 0.13$$

$$\text{ADF} = -2.5^*(0.10) \quad \text{PP} = -2.4^*(0.09)$$

where,

INVINRT = Investment Income Receipts
INVINPT = Investment Income Payments
FCA = Foreign Currency Assets
USGBMED = Interest rate on medium term US government bonds
EXCHRATE = Exchange rate (rupees per US dollar)
EXDEBT = External Debt
DUM93 = Dummy variable with value 1 for period 1992-93 to 1998-99 and 0 for the earlier period to capture the effect of large increase in foreign currency assets since 1992-93.

(7) FDI inflows

$$\text{Ln FDIIN} = -24.24 + 0.28 \text{ Ln FDIIN}\{-1\} + 2.20 \text{ Ln GDP} + 2.18 \text{ DUM91}$$

(-2.39)**
(3.23)***
(2.80)***
(4.87)**

$$\bar{R}^2 = 0.83 \quad h = 1.79 \quad \text{SEE} = 0.56$$

$$\text{ADF} = -4.18^{***}(0.00) \quad \text{PP} = -4.18^{***}(0.00)$$

where,

FDIIN = Foreign direct investment inflows;
GDP = GDP at factor cost;
DUM91 = Dummy variable with value one for period after 1991 to capture the policy regime changes and zero for 1991 and previous period;

(8) External Commercial Borrowings

Borrowings

$$\text{Ln ECBR} = -5.46 + 0.04 \text{ DSR}\{-1\} + 1.05 \text{ Ln IMP} + 0.15 \text{ GSROI} - 1.15 \text{ DUMECB}$$

(-8.79)^{***} (2.22)^{**} (12.34)^{***} (2.44)^{**} (-2.78)^{***}

$$\bar{R}^2 = 0.96 \quad \text{DW} = 1.98 \quad \text{SEE} = 0.39$$
$$\text{ADF} = -2.83^*(0.08) \quad \text{PP} = -2.76^*(0.09)$$

where,

ECBR = External commercial borrowings inflows
DSR = Debt service ratio
GSROI = Domestic rate of interest on Government securities
DUMECB = Dummy variable for ECB inflows to account for sudden decline in ECB during 1993-94
IMP = Imports

(9) NRI Deposits

$$\text{Ln NRIDEP} = -2.48 + 0.67 \text{ Ln NRIDEP}\{-1\} + 0.12 \text{ INTDIFF} + 0.97 \text{ Ln GULFEXP} - 2.19 \text{ DUMNRI}$$

(-1.85)^{*} (7.12)^{***} (2.41)^{**} (2.74)^{***} (-2.69)^{***}

$$\bar{R}^2 = 0.93 \quad \text{h} = -0.03 \quad \text{SEE} = 0.79$$
$$\text{ADF} = -6.44^{***}(0.00) \quad \text{PP} = -7.60^{***}(0.00)$$

where,

NRIDEP = Net inflows under NRI deposits;
INTDIFF = Interest rate Differential;
GULFEXP = Exports from GULF countries;
DUMNRI = Dummy variable for 1995-96.

(10) Identities

$$\text{Net Invisibles} = \text{SERVREC} - \text{SERVPAY} + \text{NPVTTR} + \text{INVINRT} - \text{INVIN PT}$$

$$\text{Current Account Balance} = [\text{Exports} - \text{Imports}] + \text{Net Invisibles}$$

Note: *Figures in the bracket are t-values*

****, **, * represent significance level at 1%, 5% and 10%, respectively.*

ADF = Augmented Dickey Fuller test statistics

PP = Philips Perron test statistics

Figures in the bracket for ADF and PP ARE p-values.

XI. ANNEX 3: Assumptions for Projection of Explanatory Variables

I. Assumptions on the independent variables of the Model

- **Export Price projection**

Domestic export price is the index of unit value of exports deflated by a nominal exchange rate index. The unit value of exports and nominal exchange rate projected separately. The growth in UVI of exports is projected 5 per cent for the Plan period by observing the underlying trend growth rate. The underlying trend growth has been arrived at by filtering the UVI series by applying the commonly used H-P Filter. We have assumed the nominal exchange rate index will appreciate 0.05 per cent by every year during the plan by observing the exchange rate movement and anticipating strong capital flows.

- **Import Price projection**

Relative import price is the ratio of import price (unit value of imports) to domestic wholesale price. Like UVI of exports, unit value of imports is projected to grow at 8 per cent based on the underlying trend. The WPI growth (inflation rate) is assumed 5.0 per cent for the Plan period consistent with the trend rate.

- **World Export price**

World export price is projected to grow at 6 per cent based on projections of World Economic Outlook (WEO) 2006.

- **World GDP**

World GDP is also simulated by taking the growth rates as projected by WEO, 2006. WEO has forecast world GDP growth 4.9 per cent for 2007 and 4.8 per cent for the period 2008-11

- **US GDP**

US GDP is assumed to grow at 2.8 per cent during 2006-07 to 2011-12 as projected by WEO, 2006.

- **Foreign Currency Asset (FCA)**

FCA is assumed to increase by US \$ 5 billion each year during the Plan period anticipating increase in capital inflows.

- **US Interest rate**

The interest rate is projected by taking the projected LIBOR rate given in WEO, 2006. The Real 6 month LIBOR is projected at 3.5 per cent for the period 2007 to 2011. The average inflation rate is projected at 2.2 per annum for the same period.

- **External Debt**

The external debt has been projected by taking the previous year's external debt and adding the projected NRI deposits, ECBs, Short term credit of US \$ 2 billion each year and external assistance amounting to 15 per cent of the total external debt.

- **Domestic Interest rates**
Domestic rate of interest represented by the G-sec rate is assumed to remain at its baseline level of around 6 per cent
- **Debt service ratio**
With expected pick up in current receipts and constant debt GDP levels, debt service ratio is assumed to gradually decline from 6 per cent to around 4 per cent during the Plan period

II. Assumptions on the Trend projections of variables

- Presently Overseas FDI by the Indian companies is 0.2 per cent of GDP. Taking into account the expected rise in **overseas investments by the Indian companies** backed by progressive liberalisation measures, the ratio is expected to rise to 0.5 per cent of GDP during the Plan period.
- With regard to FII flows, CFCAC observed, *"The limit for FII investment in G-Secs could be fixed at 6 per cent of total gross issuances by the Centre and States during 2006-07 and gradually raised to 8 per cent of gross issuance between 2007-08 and 2008-09, and to 10 per cent between 2009-10 and 2010-11. The limits could be linked to the gross issuance in the previous year to which the limit relates."* The CFAC further observed, *"The FII ceiling for investments in corporate bonds of US\$ 1.50 billion should in future be linked to fresh issuances and the present absolute limit should be retained for the year 2006-07 and be fixed at 15 per cent of fresh issuances between 2007-08 and 2008-09 and at 25 per cent between 2009-10 and 2010-11."* Hence, FII flows in future are expected to rise further. However, price-earnings ratio in India is one of the highest among the emerging economies. Given the sectoral limit, the scope of FII investment has been depleting rapidly in case of most of the blue chip companies. In fact, several FIIs have been active in picking up securities from the mid-cap and small-cap segments. Further interest rates are at the early stage of upswing. Asset price inflation around the world is a major concern for the policy makers. Flight to safety is likely to continue by the FIIs in the immediate future. In such a situation, there could be compositional and/or directional shift of FII investment from equity to debt, and possibly from emerging to the developed markets. Keeping in view all the above factors, the net inflow may be around US \$ 5-6 billion per year. Assuming ADR/GDR flow of around US \$ 2 billion each year, total portfolio flows has been projected at US \$ 8 billion on an average during the Plan period.
- External assistance flows are taken at their normal level. The projections of external assistance, which were considered as important source of financing CAD in the earlier Plans, have now been replaced by the market based sources of financing.

- Projections of repayment of external assistance are based on the repayment schedule.
- ECB repayment projections are based on data on the existing repayment schedule and also taking into account the repayment obligations arising out of fresh borrowings.
- Projections on Banking capital, excluding NRI deposits, are based on their average normal level of inflows in the past.
- Projections on short-term credit are linked to import financing requirements (average annual net inflows work out to around US \$ 3 billion during the Plan period).

XIII-Annex 5 (Statement 1 to 4)

Statement 1: Baseline - Average 8 per cent GDP growth							
(as percentage of GDP)							
Items	2005-06 Actual	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Exports (% growth)	13.1(27.5)	14.2 (17.6)	14.3(17.6)	14.9(17.7)	15.1(17.8)	15.8(18.0)	16.5(18.0)
Oil Imports (% growth)	5.5(47.3)	5.6(11.0)	5.4(12.0)	5.3(11.3)	5.1(11.5)	5.0(11.4)	5.0(11.4)
Non-oil Imports (% growth)	14.1(26.4)	15.5(19.5)	15.9(19.8)	16.9(20.0)	17.5(20.2)	18.6(20.2)	19.8(20.2)
Trade Balance	-6.5	-6.9	-7.0	-7.3	-7.5	-7.8	-8.3
Invisible Surplus	5.1	5.0	5.1	5.3	5.4	5.6	5.9
<i>of which : Pvt Transfers</i>	3.0	3.0	3.0	3.0	3.0	3.0	3.0
<i>Services</i>	2.8	2.6	2.9	3.1	3.3	3.6	3.9
Current Account Balance	-1.4	-1.9	-1.9	-2.0	-2.1	-2.2	-2.4
FDI, net	0.6	0.6	0.6	0.6	0.7	0.8	0.9
NRI deposits	0.3	0.4	0.5	0.6	0.7	0.7	0.7
ECBs/FCCBs	0.9	0.9	0.9	0.8	0.8	0.7	0.7
Disbursement	1.7	1.5	1.5	1.5	1.5	1.5	1.5
Repayment#	0.8	0.6	0.6	0.7	0.7	0.7	0.8
Portfolio	1.5	0.6	0.6	0.6	0.6	0.6	0.6
External Assistance, net	0.2	0.2	0.2	0.2	0.1	0.1	0.1
Non-NRI Banking Capital	-0.1	0.2	0.2	0.2	0.2	0.2	0.2
Short Term Credit, net	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Net Capital Flows	3.6	3.1	3.2	3.2	3.3	3.3	3.4
Stable Flows*	1.9	2.3	2.4	2.4	2.5	2.5	2.6

Note: Figures in parantheses are percentage growth rates; *: Stable flows are defined to represent all capital flows excluding portfolio flows and short-term credits; #: ECB/FCCBs Repayment for 2005-06 is adjusted for IMDs.

Statement 2: Alternative Scenario I -Average 7 per cent GDP growth	(as percentage of GDP)
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Items	2005-06 Actual	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Exports (% growth)	13.1(27.5)	14.2(17.6)	14.4(17.5)	15.1(17.6)	15.5(17.7)	16.4(17.9)	17.2(18.0)
Oil Imports (% growth)	5.5(47.3)	5.6(10.8)	5.4(11.7)	5.4(11.0)	5.2(11.3)	5.2(11.2)	5.1(11.2)
Non-oil Imports (% growth)	14.1(26.4)	15.5(19.5)	15.9(18.9)	16.8(19.1)	17.6(19.3)	18.7(19.3)	20.0(19.3)
Trade Balance	-6.5	-6.9	-6.9	-7.1	-7.3	-7.5	-7.9
Invisible Surplus	5.1	5.0	5.3	5.6	5.9	6.3	6.7
<i>of which : Pvt Transfers</i>	3.0	3.0	3.0	3.0	3.0	3.0	3.0
<i>Services</i>	2.8	2.7	3.1	3.4	3.8	4.2	4.7
Current Account Balance	-1.4	-1.9	-1.6	-1.5	-1.4	-1.3	-1.1
FDI, net	0.6	0.6	0.6	0.6	0.7	0.7	0.8
NRI deposits	0.3	0.4	0.5	0.6	0.7	0.7	0.7
ECBs/FCCBs	0.9	0.9	0.9	0.8	0.8	0.7	0.7
Disbursement	1.7	1.5	1.5	1.5	1.5	1.5	1.5
Repayment#	0.8	0.6	0.6	0.7	0.7	0.7	0.8
Portfolio	1.5	0.5	0.5	0.5	0.5	0.5	0.5
External Assistance, net	0.2	0.2	0.2	0.2	0.1	0.1	0.1
Non-NRI Banking Capital	-0.1	0.2	0.2	0.2	0.2	0.2	0.2
Short Term Credit, net	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Net Capital Flows	3.6	3.0	3.1	3.1	3.2	3.2	3.2
Stable Flows*	1.9	2.3	2.4	2.4	2.5	2.5	2.5

Note: Figures in parantheses are percentage growth rates; *: Stable flows are defined to represent all capital flows excluding portfolio flows and short-term credits; #: ECB/FCCBs Repayment for 2005-06 is adjusted for IMDs.

Statement 3: Alternative Scenario II -Average 8.5 per cent GDP growth (as percentage of GDP)							
Items	2005-06 Actual	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Exports (% growth)	13.1(27.5)	14.2(17.6)	14.2(17.6)	14.7(17.7)	14.9(17.8)	15.5(18.0)	16.1(18.0)
Oil Imports (% growth)	5.5(47.3)	5.6(10.8)	5.4(12.1)	5.3(11.4)	5.1(11.6)	5.0(11.6)	4.9(11.6)
Non-oil Imports (% growth)	14.1(26.4)	15.5(19.5)	15.9(20.6)	16.9(20.8)	17.5(21.0)	18.8(21.0)	19.9(20.3)
Trade Balance	-6.5	-6.9	-7.1	-7.5	-7.7	-8.3	-8.7

Invisible Surplus	5.1	5.1	5.2	5.3	5.3	5.5	5.6
<i>of which : Pvt Transfers</i>	3.0	3.1	3.0	3.0	2.9	2.9	2.9
<i>Services</i>	2.8	2.7	2.9	3.2	3.3	3.5	3.7
Current Account Balance	-1.4	-1.8	-1.9	-2.2	-2.4	-2.8	-3.0
FDI, net	0.6	0.7	0.7	0.7	0.8	0.8	0.9
NRI deposits	0.3	0.4	0.5	0.6	0.7	0.7	0.7
ECBs/FCCBs	0.9	1.1	0.9	0.8	0.8	0.7	0.7
Disbursement	1.7	1.7	1.5	1.5	1.5	1.5	1.5
Repayment#	0.8	0.6	0.6	0.7	0.7	0.7	0.8
Portfolio	1.5	0.6	0.6	0.7	0.7	0.7	0.7
External Assistance, net	0.2	0.2	0.2	0.2	0.1	0.1	0.1
Non-NRI Banking Capital	-0.1	0.2	0.2	0.2	0.2	0.2	0.2
Short Term Credit, net	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Net Capital Flows	3.6	3.4	3.3	3.3	3.4	3.4	3.5
Stable Flows*	1.9	2.6	2.5	2.4	2.5	2.5	2.6

Note: Figures in parantheses are percentage growth rates; *: Stable flows are defined to represent all capital flows excluding portfolio flows and short-term credits; #: ECB/FCCBs Repayment for 2005-06 is adjusted for IMDs.

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Statement 4: Alternative Scenario III- Average 9 per cent GDP growth (as percentage of GDP)							
Items	2005-06 Actual	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Exports (% growth)	13.1(27.5)	14.2(17.6)	14.1(17.6)	14.6(17.7)	14.7(17.8)	15.3(18.0)	15.8(18.0)
Oil Imports (% growth)	5.5(47.3)	5.6(11.2)	5.4(12.3)	5.2(11.6)	5.0(11.8)	4.9(11.7)	4.8(11.7)
Non-oil Imports (% growth)	14.1(26.4)	15.5(19.5)	16.0(21.8)	17.1(22.0)	17.9(22.2)	19.2(22.2)	20.5(21.7)
Trade Balance	-6.5	-6.9	-7.2	-7.7	-8.3	-9.0	-9.5
Invisible Surplus	5.1	5.0	5.0	5.1	5.2	5.3	5.4
<i>of which : Pvt Transfers</i>	3.0	3.1	3.0	3.0	2.9	2.9	2.9
<i>Services</i>	2.8	2.6	2.8	3.0	3.1	3.4	3.5
Current Account Balance	-1.4	-1.9	-2.2	-2.6	-3.1	-3.7	-4.0
FDI, net	0.6	0.7	0.7	0.7	0.8	0.8	1.0
NRI deposits	0.3	0.4	0.5	0.6	0.7	0.7	0.7

ECBs/FCCBs	0.9	1.1	0.9	0.8	0.8	0.7	0.7
Disbursement	1.7	1.7	1.5	1.5	1.5	1.5	1.5
Repayment#	0.8	0.6	0.6	0.7	0.7	0.7	0.8
Portfolio	1.5	0.6	0.6	0.7	0.7	0.8	0.8
External Assistance, net	0.2	0.2	0.2	0.2	0.1	0.1	0.1
Non-NRI Banking Capital	-0.1	0.2	0.2	0.2	0.2	0.2	0.2
Short Term Credit, net	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Net Capital Flows	3.6	3.4	3.3	3.3	3.5	3.5	3.7
Stable Flows*	1.9	2.6	2.5	2.4	2.6	2.5	2.7

Note: Figures in parantheses are percentage growth rates; *: Stable flows are defined to represent all capital flows excluding portfolio flows and short-term credits; #: ECB/FCCBs Repayment for 2005-06 is adjusted for IMDs.

Statement 5: Alternative Scenario IV -Average Oil Price US \$ 80 pb (as percentage of GDP)							
Items	2005-06 Actual	2006-07	2006-07	2008-09	2009-10	2010-11	2011-12
Exports (% growth)	13.1(27.5)	14.2(17.6)	14.3(17.6)	14.9(17.7)	15.1(17.8)	15.8(18.0)	16.5(18.0)
Oil Imports (% growth)	5.5(47.3)	5.6(11.2)	5.6(14.5)	5.5(13.5)	5.4(13.5)	5.5(13.5)	5.5(13.5)
Non-oil Imports (% growth)	14.1(26.4)	15.5(19.5)	15.8(19.8)	16.8(20.0)	17.5(20.2)	18.6(20.2)	19.8(20.2)
Trade Balance	-6.5	-6.9	-7.1	-7.5	-7.8	-8.3	-8.8
Invisible Surplus	5.1	5.0	5.1	5.3	5.4	5.6	5.9
<i>of which : Pvt Transfers</i>	3.0	3.1	3.0	3.0	3.0	3.0	3.0
<i>Services</i>	2.8	2.6	2.9	3.1	3.3	3.6	3.9
Current Account Balance	-1.4	-2.0	-2.0	-2.2	-2.4	-2.6	-2.9
FDI, net	0.6	0.6	0.6	0.6	0.7	0.8	0.9
NRI deposits	0.3	0.4	0.5	0.6	0.7	0.7	0.7
ECBs/FCCBs	0.9	0.9	0.9	0.8	0.8	0.7	0.7
Disbursement	1.7	1.5	1.5	1.5	1.5	1.5	1.5
Repayment#	0.8	0.6	0.6	0.7	0.7	0.7	0.8
Portfolio	1.5	0.6	0.6	0.6	0.6	0.6	0.6
External Assistance, net	0.2	0.2	0.2	0.2	0.1	0.1	0.1

Non-NRI Banking Capital	-0.1	0.2	0.2	0.2	0.2	0.2	0.2
Short Term Credit, net	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Net Capital Flows	3.6	3.1	3.2	3.2	3.3	3.3	3.4
Stable Flows*	1.9	2.3	2.4	2.4	2.4	2.5	2.6

Note: Figures in parantheses are percentage growth rates; *: Stable flows are defined to represent all capital flows excluding portfolio flows and short-term credits; #: ECB/FCCBs Repayment for 2005-06 is adjusted for IMDs.

Key Estimates, 2007-8 to 2011-12: Baseline (%)			
Indicator	2005-06 (Actual)	2007-08	2008-09
Exports	27.5	17.4	17.5
Oil Imports	47.3	8.6	11.9
Non-oil Imports	26.4	19.6	19.6
Trade Balance	40.7	15.2	18.3
Invisible Surplus	31.1	12.2	9.4
<i>of which : Pvt Transfers</i>	19.0	10.8	11.5
<i>Services</i>	56.8	16.6	11.2
Current Account Balance	96.5	29.3	55.3
FDI, net	68.3	1.5	11.9
NRI deposits	-389.3	30.0	12.7
ECBs/FCCBs	40.7	-2.5	2.4
Portfolio flows	40.2	0.0	0.0
External Assistance, net	-24.9	-1.6	-0.6
Non-NRI Banking Capital	-129.3	5.0	4.8
Short Term Credit, net	-55.0	-13.5	18.5
Net Capital Flows	9.7	6.5	6.4

Key Estimates, 2007-8 to 2011-12: Alternative Scenario I (Oil Price US \$ 80)			
Indicator	2005-06 (Actual)	2007-08	2008-09
Exports	27.5	17.4	17.5
Oil Imports	47.3	10.2	13.4
Non-oil Imports	26.4	19.6	19.6
Trade Balance	40.7	-7.0	-7.4
Invisible Surplus	31.1	5.6	5.4
<i>of which : Pvt Transfers</i>	19.0	3.0	3.0
<i>Services</i>	56.8	3.4	3.4
Current Account Balance	96.5	-1.4	-2.0
FDI, net	68.3	0.7	0.7
NRI deposits	-389.3	0.7	0.7
ECBs/FCCBs	40.7	0.8	0.8
Portfolio flows	40.2	0.7	0.7
External Assistance, net	-24.9	0.2	0.2

Non-NRI Banking Capital	-129.3	0.2	0.2
Short Term Credit, net	-55.0	0.2	0.2
Net Capital Flows	9.7	3.4	3.4

Key Estimates, 2007-8 to 2011-12: Alternative Scenario II (GDP growth - 7			
Indicator		2007-08	2008-09
Exports		17.4	17.5
Oil Imports		8.4	11.7
Non-oil Imports		18.7	18.7
Trade Balance		-6.9	-7.2
Invisible Surplus		5.7	5.4
<i>of which : Pvt Transfers</i>		3.0	2.9
<i>Services</i>		3.5	3.4
Current Account Balance		-1.2	-1.7
FDI, net		0.7	0.6
NRI deposits		0.7	0.7
ECBs/FCCBs		0.9	0.9
Portfolio flows		0.7	0.6
External Assistance, net		0.2	0.2
Non-NRI Banking Capital		0.2	0.2
Short Term Credit, net		0.2	0.2
Net Capital Flows		3.6	3.4

Key Estimates, 2007-8 to 2011-12: Alternative Scenario III (GDP growth - 8.			
Indicator		2007-08	2008-09
Exports		17.4	17.5
Oil Imports		8.8	12.1
Non-oil Imports		20.4	20.4
Trade Balance		-7.1	-7.5
Invisible Surplus		5.6	5.4
<i>of which : Pvt Transfers</i>		3.0	2.9
<i>Services</i>		3.4	3.3
Current Account Balance		-1.5	-2.1
FDI, net		0.7	0.7
NRI deposits		0.7	0.7
ECBs/FCCBs		0.8	0.8

Portfolio flows		0.9	0.8
External Assistance, net		0.2	0.2
Non-NRI Banking Capital		0.2	0.2
Short Term Credit, net		0.2	0.2
Net Capital Flows		3.6	3.5

Key Estimates, 2007-8 to 2011-12: Alternative Scenario IV (GDP growth - 9			
Indicator		2007-08	2008-09
Exports		17.4	17.5
Oil Imports		8.9	12.3
Non-oil Imports		22.1	22.1
Trade Balance		-7.3	-7.9
Invisible Surplus		5.6	5.3
<i>of which : Pvt Transfers</i>		3.0	2.9
<i>Services</i>		3.4	3.3
Current Account Balance		-1.7	-2.6
FDI, net		0.8	0.8
NRI deposits		0.7	0.7
ECBs/FCCBs		0.8	0.8
Portfolio flows		1.0	0.9
External Assistance, net		0.2	0.2
Non-NRI Banking Capital		0.2	0.2
Short Term Credit, net		0.2	0.2
Net Capital Flows		3.8	3.7

growth)		
2009-10	2010-11	2011-12
17.5	17.5	17.5
11.3	11.4	11.5
19.6	19.2	18.8
18.1	17.7	16.9
12.3	12.6	15.9
10.9	10.9	10.3
15.7	15.7	20.2
35.1	30.0	19.0

16.9	39.0	19.4
14.0	8.2	2.7
-3.3	2.4	-6.9
0.0	0.0	0.0
-8.5	-16.8	-1.5
0.0	4.5	8.7
18.1	18.7	19.0
6.3	9.5	7.8

pb) (% to GDP)		
2009-10	2010-11	2011-12
17.5	17.5	17.5
12.5	12.4	12.4
19.6	19.2	18.8
-7.6	-8.0	-8.3
5.3	5.3	5.4
2.8	2.8	2.7
3.4	3.5	3.7
-2.4	-2.7	-2.9
0.7	0.8	0.9
0.7	0.6	0.6
0.7	0.6	0.5
0.6	0.5	0.5
0.1	0.1	0.1

0.2	0.2	0.1
0.2	0.2	0.2
3.1	3.1	2.9

per cent)	(% to GDP)	
2009-10	2010-11	2011-12
17.5	17.5	17.5
11.0	11.3	11.2
18.7	18.4	18.0
-7.2	-7.5	-7.6
5.4	5.5	5.6
2.9	2.8	2.9
3.5	3.6	3.8
-1.9	-2.0	-2.0

0.7	0.8	0.9
0.7	0.6	0.6
0.7	0.7	0.6
0.5	0.5	0.4
0.1	0.1	0.1
0.2	0.2	0.1
0.2	0.2	0.2
3.1	3.0	2.9

5 per cent)	(% to GDP)	
2009-10	2010-11	2011-12
17.5	17.5	17.5
11.4	11.6	11.6
20.4	20.0	19.6
-7.7	-8.2	-8.6
5.2	5.2	5.3
2.8	2.7	2.7
3.3	3.4	3.6
-2.5	-3.0	-3.3

0.7	0.8	0.9
0.7	0.6	0.6
0.7	0.6	0.5

0.7	0.6	0.5
0.1	0.1	0.1
0.2	0.2	0.1
0.2	0.2	0.2
3.2	3.2	3.0

) per cent)		(% to GDP)
2009-10	2010-11	2011-12
17.5	17.5	17.5
11.6	11.8	11.7
22.1	21.7	21.3
-8.4	-9.1	-9.8
5.1	5.1	5.2
2.8	2.7	2.6
3.3	3.3	3.5
-3.3	-4.0	-4.6
0.8	0.9	1.0
0.7	0.6	0.6
0.7	0.6	0.5
0.7	0.6	0.6
0.1	0.1	0.1
0.2	0.2	0.1
0.2	0.2	0.2
3.4	3.3	3.1

Table 1: Select Indicators of Trade and Current and Capital Account

Year	Trade			Invisibles			CAD/ GDP	Current receipts/ GDP	Foreign investment/ GDP	Import cover of reserves (in months)
	Exports/ GDP	Imports/ GDP	Trade Deficit/ GDP	Receipts/ GDP	Payments/ GDP	Net/ GDP				
	(Per cent)									
1970-71	3.1	4.0	-0.9	1.1	1.2	-0.1	-1.0	3.9	0.1	4.8
1971-72	3.2	4.2	-1.0	1.1	1.2	-0.1	-1.0	4.0	0.1	5.0
1972-73	3.7	4.0	-0.3	0.9	1.2	-0.3	-0.6	4.4	0.1	5.2
1973-74	3.6	4.4	-0.8	3.5	1.0	2.5	1.7	4.4	0.1	4.4
1974-75	4.1	5.8	-1.7	1.3	0.8	0.5	-1.2	5.2	0.1	2.9
1975-76	5.0	6.4	-1.4	2.2	1.0	1.2	-0.2	6.6	0.0	4.2
1976-77	5.7	6.1	-0.4	2.5	1.1	1.4	1.0	7.7	0.0	7.4
1977-78	5.4	5.9	-0.5	2.7	1.0	1.7	1.1	7.7	0.0	9.9
1978-79	5.1	7.1	-2.0	2.9	1.1	1.8	-0.2	7.5	0.0	9.2
1979-80	5.2	8.1	-2.9	3.6	1.2	2.4	-0.5	8.4	0.1	7.3
1980-81	4.6	9.0	-4.4	3.9	1.2	2.7	-1.5	8.2	0.0	5.0
1981-82	4.6	8.4	-3.8	3.3	1.2	2.1	-1.7	7.7	0.0	3.4
1982-83	4.8	8.4	-3.6	3.2	1.4	1.8	-1.7	7.9	0.0	3.6
1983-84	4.6	7.8	-3.2	3.1	1.5	1.6	-1.5	7.6	0.0	4.1
1984-85	4.9	7.6	-2.7	3.4	1.8	1.6	-1.2	8.0	0.0	4.5
1985-86	4.2	7.6	-3.4	2.8	1.5	1.3	-2.1	6.8	0.0	4.5
1986-87	4.3	7.3	-3.0	2.7	1.5	1.2	-1.9	6.8	0.1	4.4
1987-88	4.6	7.3	-2.7	2.6	1.8	0.8	-1.8	7.1	0.2	3.8
1988-89	4.9	8.1	-3.2	2.6	2.1	0.5	-2.7	7.3	0.2	2.4
1989-90	5.8	8.4	-2.6	2.6	2.4	0.2	-2.3	8.2	0.2	1.9
1990-91	5.8	8.8	-3.0	2.3	2.4	-0.1	-3.1	8.0	0.0	2.5
1991-92	6.9	7.9	-1.0	3.6	2.9	0.7	-0.3	10.3	0.1	5.3
1992-93	7.3	9.6	-2.3	3.6	3.0	0.6	-1.7	10.8	0.2	4.9
1993-94	8.3	9.8	-1.5	4.1	3.1	1.0	-0.4	12.3	1.5	8.6
1994-95	8.3	11.1	-2.8	4.8	3.1	1.7	-1.0	13.0	1.5	8.4
1995-96	9.1	12.3	-3.2	5.0	3.5	1.5	-1.7	14.0	1.4	6.0
1996-97	8.9	12.7	-3.8	5.6	2.9	2.7	-1.2	14.3	1.6	6.5
1997-98	8.7	12.5	-3.8	5.7	3.2	2.5	-1.4	14.3	1.3	6.9
1998-99	8.3	11.5	-3.2	6.2	4.0	2.2	-1.0	14.5	0.6	8.2
1999-00	8.4	12.4	-4.0	6.8	3.8	3.0	-1.0	14.9	1.2	8.2
2000-01	9.9	12.7	-2.8	7.1	4.9	2.2	-0.6	16.8	1.5	8.8
2001-02	9.4	11.8	-2.4	7.7	4.5	3.2	0.7	16.9	1.7	11.5
2002-03	10.6	12.7	-2.1	8.3	4.9	3.4	1.3	18.8	1.2	14.2
2003-04	11.0	13.3	-2.3	8.9	4.3	4.6	2.3	19.8	2.6	16.9
2004-05	12.2	17.1	-4.9	10.0	5.5	4.5	-0.4	22.1	1.9	14.3
2005-06	13.1	19.6	-6.5	11.5	6.4	5.1	-1.3	24.5	2.3	11.6

Source: Reserve Bank of India

Table 2: Major Components of India's Exports

US \$ million										
	Primary Products		Manufactured Goods		Petroleum Products		Others		Total	
	Amount	Growth(%)	Amount	Growth(%)	Amount	Growth(%)	Amount	Growth(%)	Amount	Growth(%)
1987-88	3161		8195		500		233		12089	
1988-89	3243	2.6	10110	23.4	349	-30.3	269	15.7	13970	15.6
1989-90	3883	19.8	11972	18.4	418	20.0	339	26.2	16613	18.9
1990-91	4324	11.4	12996	8.6	523	24.9	302	-11.0	18145	9.2
1991-92	4132	-4.4	13148	1.2	415	-20.7	170	-43.7	17865	-1.5
1992-93	3874	-6.3	14039	6.8	476	14.8	149	-12.6	18537	3.8
1993-94	4916	26.9	16657	18.6	398	-16.5	268	80.3	22238	20.0
1994-95	5214	6.1	20404	22.5	417	4.8	295	10.0	26331	18.4
1995-96	7257	39.2	23747	16.4	454	8.8	583	97.9	31795	20.8
1996-97	8035	10.7	24613	3.6	482	6.2	339	-41.8	33470	5.3
1997-98	7687	-4.3	26547	7.9	353	-26.8	420	23.7	35006	4.6
1998-99	6928	-9.9	25791	-2.8	89	-74.6	410	-2.4	33219	-5.1
1999-00	6524	-5.8	29714	15.2	39	-56.5	545	32.9	36822	10.8
2000-01	7126	9.2	34335	15.6	1870	4709.7	1229	125.6	44560	21.0
2001-02	7164	0.5	33370	-2.8	2119	13.3	1548	25.9	43827	-1.6
2002-03	8706	21.5	40245	20.6	2577	21.6	1192	-23.0	52719	20.3
2003-04	9902	13.7	48492	20.5	3568	38.5	1880	57.7	63843	21.1
2004-05	13553	36.9	60731	25.2	6989	95.9	2263	20.3	83536	30.8
2005-06	16388	20.9	71816	18.3	11515	64.7	3007	32.9	102725	23.0

Source: DGCI&S.

Table 3: India's Imports of principal Commodities

US \$ million							
	Petroleum & products	Bulk Imports	Capital Goods	Export Related	Gold& Silver	Non Oil Imports	Total Imports
1990-91	6028	10848	5836	3680	-	18044	24073
1991-92	5325	8563	4233	3581	-	14086	19411
1992-93	6100	9830	4532	4148	-	15782	21882
1993-94	5754	9112	6243	4388	-	17553	23306
1994-95	5928	11321	7638	4317	713	22727	28654
1995-96	7526	14314	10330	5258	867	29150	36675
1996-97	10036	16365	9922	6138	992	29096	39132
1997-98	8164	14790	9796	6913	3169	33321	41484
1998-99	6399	13230	10064	7131	5072	35990	42389
1999-00	12611	19646	8965	9117	4706	37059	49671
2000-01	15650	20816	8941	8059	4638	34886	50536
2001-02	14000	20263	9882	8260	4582	37413	51413
2002-03	17640	24300	13498	10314	4288	43773	61412
2003-04	20569	29461	18279	12717	6856	57580	78149
2004-05	29844	42401	25135	17096	11150	81673	111517
2005-06	43963	60667	31677	18533	11189	98453	142416

Table 4: Index Numbers of Foreign Trade

Year	Unit Value Index		Quantum Index	
	Exports	Imports	Exports	Imports
1970-71	45.0	35.3	59.0	67.2
1971-72	46.0	32.8	59.2	80.6
1972-73	51.2	34.2	66.5	76.7
1973-74	62.2	48.9	69.5	87.2
1974-75	78.0	84.5	73.7	77.2
1975-76	83.9	99.1	81.7	76.0
1976-77	89.4	96.3	96.8	76.1
1977-78	100.3	88.0	93.2	100.0
1978-79	100.0	100.0	100.0	100.0
1979-80	105.4	114.1	106.2	116.4
1980-81	108.5	134.2	108.1	137.9
1981-82	124.1	133.1	110.1	150.6
1982-83	132.0	136.3	116.7	154.6
1983-84	151.0	125.8	113.0	185.4
1984-85	169.8	161.7	120.8	156.1
1985-86	170.8	158.8	111.3	182.3
1986-87	179.4	139.4	121.3	212.3
1987-88	195.4	160.0	140.0	204.8
1988-89	232.2	185.5	152.1	224.2
1989-90	276.6	228.4	174.9	227.8
1990-91	292.5	267.7	194.1	237.7
1991-92	369.5	309.1	208.6	228.0
1992-93	421.5	331.0	222.9	282.0
1993-94	474.1	327.2	257.5	329.1
1994-95	494.6	324.6	292.7	408.3
1995-96	484.2	351.0	384.3	514.8
1996-97	504.7	399.8	411.8	511.8
1997-98	589.4	404.2	386.0	562.1
1998-99	612.0	408.0	399.0	644.0
1999-00	604.0	450.0	461.0	705.0
2000-01	624.0	487.0	571.0	698.0
2001-02	618.0	493.0	593.0	733.0
2002-03	619.6	545.6	721.6	802.4
2003-04	672.0	545.0	765.0	970.0
2004-05	732.0	685.0	866.0	1055.0

Source: DGCI&S.

Table 5: Components of India's Invisibles Invisibles

							US \$ million	
	Services			Income		Private Transfers		
	Receipts	<i>of Which:</i>	Payments	Receipts	Payments	Receipts	Payments	
		<i>Software</i>						
1990-91	4551		3571	368	4121	2083	15	
1991-92	5022		3815	221	4051	3798	15	
1992-93	4730		3601	376	3799	3864	12	
1993-94	5264	325	4729	395	3665	5287	22	
1994-95	6135	489	5533	886	4317	8112	19	
1995-96	7346	754	7543	1429	4634	8539	33	
1996-97	7474	1100	6748	1073	4380	12435	68	
1997-98	9429	1759	8110	1561	5082	11875	45	
1998-99	13186	2600	11021	1935	5479	10341	61	
1999-00	15709	3962	11645	1931	5490	12290	34	
2000-01	16268	6217	14576	2682	7686	13065	211	
2001-02	17140	7647	13816	3379	7585	15760	362	
2002-03	20763	9545	17120	3522	6968	17189	802	
2003-04	26868	12800	16724	3904	8409	22182	574	
2004-05	43249	17700	27823	4593	9572	21075	550	
2005-06	60610	23600	38345	5651	11250	24553	458	

Source: Reserve Bank of India.

Table 6: Major Components of India's Invisibles (as Percentage to GDP)

Year	Net Invisibles	Services	Income	Private Transfers
	Net	Net		
1990-91	-0.1	0.3	-1.2	0.7
1991-92	0.7	0.5	-1.4	1.4
1992-93	0.6	0.5	-1.4	1.6
1993-94	1.0	0.2	-1.2	1.9
1994-95	1.8	0.2	-1.1	2.5
1995-96	1.6	-0.1	-0.9	2.4
1996-97	2.7	0.2	-0.9	3.2
1997-98	2.4	0.3	-0.9	2.9
1998-99	2.2	0.5	-0.9	2.5
1999-00	2.9	0.9	-0.8	2.7
2000-01	2.1	0.4	-1.1	2.8
2001-02	3.1	0.7	-0.9	3.2
2002-03	3.4	0.7	-0.7	3.2
2003-04	4.6	1.7	-0.7	3.6
2004-05	4.5	2.2	-0.7	2.9
2005-06	5.1	2.8	-0.7	3.0

Table 7: Major Components of Capital Flows

US \$ million

	FDI, Net	FDI to India	FDI by India	Portfolio	ADR/GDR FCCB	External Assistance	ECB	Short-term Trade Credit	Banking Capital	Net Capital NRD	Net Capital Inflows
1990-91	96	96	0	6		2,204	2,254	1,075	682	1,537	7,188
	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.7)	(0.7)	(0.3)	(0.2)	(0.5)	(2.3)
1991-92	129	129	0	4		3,031	1,463	-515	564	290	3,777
	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(1.1)	(0.5)	-(0.2)	(0.2)	(0.1)	(1.4)
1992-93	315	315	0	242		1,856	-366	-1,079	3,826	2,001	2,936
	(0.1)	(0.1)	(0.0)	(0.1)	(0.0)	(0.8)	-(0.1)	-(0.4)	(1.6)	(0.8)	(1.2)
1993-94	586	586	0	3,649		1,896	685	-769	2,263	1,205	9,695
	(0.2)	(0.2)	(0.0)	(1.3)	(0.0)	(0.7)	(0.3)	-(0.3)	(0.8)	(0.4)	(3.5)
1994-95	1,228	1,343	115	3,579		1,518	1,124	393	-334	172	9,156
	(0.4)	(0.4)	(0.0)	(1.1)	(0.0)	(0.5)	(0.3)	(0.1)	-(0.1)	(0.1)	(2.8)
1995-96	1,955	2,143	188	2,661	683	867	1,285	49	762	1,103	4,689
	(0.6)	(0.6)	(0.1)	(0.7)	(0.2)	(0.2)	(0.4)	(0.0)	(0.2)	(0.3)	(1.3)
1996-97	2,652	2,842	190	3,312	1,366	1,101	2,856	838	2,229	3,350	11,412
	(0.7)	(0.7)	(0.0)	(0.9)	(0.4)	(0.3)	(0.7)	(0.2)	(0.6)	(0.9)	(3.0)
1997-98	3,525	3,562	37	1,828	645	885	4,010	-96	-893	1,125	10,011
	(0.9)	(0.9)	(0.0)	(0.4)	(0.2)	(0.2)	(1.0)	(0.0)	-(0.2)	(0.3)	(2.4)
1998-99	2,380	2,480	100	-68	270	799	4,367	-748	698	960	8,260
	(0.6)	(0.6)	(0.0)	(0.0)	(0.1)	(0.2)	(1.1)	-(0.2)	(0.2)	(0.2)	(2.0)
1999-00	2,093	2,167	74	3,024	768	891	333	377	2,127	1,540	11,100
	(0.5)	(0.5)	(0.0)	(0.7)	(0.2)	(0.2)	(0.1)	(0.1)	(0.5)	(0.3)	(2.5)
2000-01	3,272	4,031	759	2,590	831	410	4,303	105	811	2,317	8,535
	(0.7)	(0.9)	(0.2)	(0.6)	(0.2)	(0.1)	(0.9)	(0.0)	(0.2)	(0.5)	(1.8)
2001-02	4,734	6,125	1,391	2,021	477	1,117	-1,585	-891	5,592	2,754	8,357
	(1.0)	(1.3)	(0.3)	(0.4)	(0.1)	(0.2)	-(0.3)	-(0.2)	(1.2)	(0.6)	(1.7)
2002-03	3,217	5,036	1,819	979	600	-3,128	-1,692	979	8,412	2,976	10,640
	(0.6)	(1.0)	(0.4)	(0.2)	(0.1)	-(0.6)	-(0.3)	(0.2)	(1.7)	(0.6)	(2.1)
2003-04	2,388	4,322	1,934	11,356	459	-2,858	-2,925	1,419	6,033	3,642	16,736
	(0.4)	(0.7)	(0.3)	(1.9)	(0.1)	-(0.5)	-(0.5)	(0.2)	(1.0)	(0.6)	(2.8)
2004-05	3,713	5,987	2,274	9,287	613	1,923	5,040	3,792	3,874	-964	31,027
	(0.5)	(0.9)	(0.3)	(1.3)	(0.1)	(0.3)	(0.7)	(0.5)	(0.6)	-(0.1)	(4.5)
2005-06	5,733	7,691	1,958	12,489	2,552	1,438	1,591	1,708	1,373	2,789	30,193
	(0.7)	(1.0)	(0.2)	(1.6)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)	(3.8)

Note: Figures in Bracket are ratio to GDP.

Source: Reserve Bank of India.

Table 8: Cross-Country - Exports/GDP and FDI/GDP (Per cent)

		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Argentina	Exports/GDP	9.6	10.4	10.5	10.4	9.8	10.9	11.5	27.7	25.0	25.3
	FDI/GDP	2.2	2.6	3.1	2.4	8.5	3.7	0.8	2.1	1.3	2.7
Brazil	Exports/GDP	7.7	7.1	7.5	7.3	10.3	10.7	13.2	15.5	16.4	18.0
	FDI/GDP	0.7	1.4	2.4	4.1	5.3	5.4	4.4	3.6	2.0	3.0
India	Exports/GDP	11.0	10.6	10.9	11.2	11.8	13.9	13.5	15.3	14.9	19.1
	FDI/GDP	0.6	0.6	0.9	0.6	0.5	0.8	1.1	1.1	0.8	0.8
Indonesia	Exports/GDP	26.3	25.8	27.9	53.0	35.5	41.0	38.2	32.0	30.7	30.9
	FDI/GDP	2.2	2.7	2.2	-0.3	-1.3	-2.8	-1.8	0.1	-0.3	0.4
Korea, Rep	Exports/GDP	28.8	27.9	32.4	46.2	39.1	40.8	37.8	35.3	37.9	44.1
	FDI/GDP	0.3	0.4	0.6	1.6	2.1	1.8	0.7	0.4	0.6	1.2
Malaysia	Exports/GDP	94.1	91.6	93.3	115.7	121.3	124.4	116.4	114.6	113.4	121.2
	FDI/GDP	4.7	5.0	5.1	3.0	4.9	4.2	0.6	3.4	2.4	3.9
Mexico	Exports/GDP	30.4	32.1	30.3	30.7	30.7	31.0	27.5	26.8	27.8	30.1
	FDI/GDP	3.3	2.8	3.2	2.9	2.8	2.9	4.5	2.4	1.9	2.6
Philippines	Exports/GDP	36.4	40.5	49.0	52.2	51.5	55.4	48.6	49.7	50.5	51.5
	FDI/GDP	2.0	1.8	1.5	3.5	2.3	1.8	1.4	2.3	0.4	0.6
Russia	Exports/GDP	29.3	26.1	24.7	31.2	43.2	44.1	36.9	35.3	35.2	35.0
	FDI/GDP	0.5	0.7	1.2	1.0	1.7	1.0	0.9	1.0	1.8	2.1
Turkey	Exports/GDP	19.9	21.5	24.6	24.3	23.2	24.0	33.7	29.2	27.4	28.9
	FDI/GDP	0.5	0.4	0.4	0.5	0.4	0.5	2.2	0.6	0.7	0.9
Thailand	Exports/GDP	41.8	39.3	48.0	58.9	58.3	66.8	65.9	64.2	65.6	70.5
	FDI/GDP	1.2	1.3	2.6	6.5	5.0	2.7	3.4	0.8	1.4	0.9
Source: World Bank Online Database					NA: Not available						

Table 9: Current Account Balances and Current Account Receipts- Cross Country Comparison

Current account balance (% of GDP)										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Argentina	-2.0	-2.5	-4.2	-4.9	-4.2	-3.2	-1.2	8.5	5.9	2.2
Brazil	-2.6	-3.0	-3.8	-4.3	-4.7	-4.0	-4.6	-1.7	0.8	1.9
China	0.2	0.8	3.9	3.1	1.9	1.7	1.3	2.4	2.8	3.6
India	-1.6	-1.5	-0.7	-1.7	-0.7	-1.0	0.3	1.4	1.1	1.7
Indonesia	-3.2	-3.4	-2.3	4.3	4.1	4.8	4.2	3.9	3.5	1.2
Korea, Rep.	-1.7	-4.2	-1.6	11.7	5.5	2.4	1.7	1.0	2.0	4.1
Malaysia	-9.7	-4.4	-5.9	13.2	15.9	9.4	8.3	7.5	12.9	NA
Mexico	-0.5	-0.8	-1.9	-3.8	-2.9	-3.2	-2.8	-2.1	-1.3	-1.1
Philippines	-2.7	-4.8	-5.3	2.4	9.5	8.2	1.8	5.7	1.8	2.5
Russia	1.8	2.8	0.0	0.1	12.6	18.0	11.0	8.4	8.2	10.3
Turkey	-1.4	-1.3	-1.4	1.0	-0.7	-4.9	2.3	-0.8	-3.3	-5.1
Thailand	-8.1	-8.1	-2.0	12.7	10.2	7.6	5.4	5.5	5.6	4.1
Current account Receipts(% of GDP)										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Argentina	11.7	12.4	12.8	12.8	12.3	13.9	14.1	32.1	29.4	28.9
Brazil	8.5	7.9	8.3	8.3	11.4	11.6	14.3	16.5	17.8	19.2
China	22.0	22.1	24.2	22.8	23.5	27.7	26.7	29.7	35.3	36.2
India	13.1	13.9	14.4	13.7	14.5	16.3	16.8	17.9	18.5	22.0
Indonesia	27.3	25.9	30.7	61.0	42.6	45.4	40.4	34.7	30.5	37.0
Korea	30.0	28.9	33.7	48.4	40.8	42.9	40.2	37.7	40.3	46.6
Malaysia	97.4	94.9	96.4	118.6	124.9	127.4	119.1	116.6	117.9	125.1
Mexico	33.9	34.7	32.8	33.3	33.1	33.2	29.9	29.0	30.6	32.8
Philippines	45.9	49.2	60.4	67.8	62.6	65.4	59.1	59.8	64.4	65.3
Russia	31.3	27.6	26.1	33.8	45.8	46.3	39.4	37.0	38.4	37.2
Turkey	27.4	27.7	30.4	31.2	28.8	29.8	38.8	32.6	30.7	31.5
Thailand	44.8	42.3	51.4	62.6	61.4	70.8	70.0	67.6	68.7	74.0

Source: World Bank Online Database

NA: Not available

Table 10: Reserve Adequacy Indicators for India

Year	Reserves	Reserves to Imports	Reserves to Imports and Debt Service Payments	Short-term Debt and Portfolio Stocks/ Reserves	NFA to Currency	Reserves to Broad Money
	(\$ million)	(in months)	(in months)	(per cent)	(per cent)	(percent)
1991	3627	1.8	1.5	146.5	14.9	4.9
1992	5757	3	2.3	76.8	17.5	5.3
1993	10199	4.7	2.8	67	33	12.6
1994	19699	7.2	5.8	39.1	62.7	15
1995	17922	5.1	4.2	26.2	56.9	14.1
1996	20170	5	4.3	68.6	61.1	14.1
1997	24688	5.9	5.1	74.5	71.2	14.1
1998	27341	6.6	5.8	67.4	76.3	14.6
1999	32667	7.8	7	58	79.1	15.3
2000	37902	7.6	7	56.4	92.1	15.8
2001	45871	9.7	9.1	56.2	101.3	17.3
2002	67666	13.4	11.9	45.9	129.5	22.3
2003	98938	15.7	13.4	36.4	153.5	27.4
2004	126593	14.3	13.7	34.4	166.9	29
2005	131924	10.6	13.2	35.9	163.9	27.5