

**FINANCING OF INDIA'S BALANCE OF PAYMENTS**  
**Discernible Changes in Post Liberalisation Period**

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**Justine George**



**CENTRE FOR DEVELOPMENT STUDIES**

Thiruvananthapuram

June 2010

**FINANCING OF INDIA'S BALANCE OF PAYMENTS**  
**Discernible Changes in Post Liberalisation Period**

*Dissertation submitted in partial fulfillment of the requirements for the  
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**Justine George**

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CENTRE FOR DEVELOPMENT STUDIES  
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June 2010

I hereby affirm that the work for the dissertation, '*Financing of India's Balance of Payments: Discernible Changes in Post Liberalisation Period*', being submitted as part of the requirements of the M Phil Programme in Applied Economics of the Jawaharlal Nehru University, was carried out entirely by myself. I also affirm that it was not part of any other programme of study and has not been submitted to any other University for the award of any Degree.



**Justine George**

*June, 2010*

Certified that this study is a bona fide work of *Justine George*, carried out under our supervision at the Centre for Development Studies



**Dr. Sunil Mani**  
Professor



**Dr. M. Parameswaran**  
Assistant Professor



**K. Narayanan Nair**  
Director  
Centre for Development Studies  
Thiruvananthapuram

*...to my father late MC George*

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**Justine George**

*Abstract of the Dissertation*  
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*M Phil Programme in Applied Economics, Jawaharlal Nehru University  
Centre for Development Studies, Thiruvananthapuram*

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Management of BoP was found to be a difficult task for India up to liberalisation period. India faced severe BoP problem in 1991, contributed by financing higher Current Account Deficit (CAD) with volatile debt capital flows, forcing the country to liberalise the economy. In response to the crisis, the Government appointed a high level committee for reforming BoP and the committee made two recommendations with regard to financing BoP; first the CAD must be contained; second the financing BoP must shift from debt to non debt flows. Stability and cost of financing are the two features for preferring non-debt flows over debt flows. CAD was minimised and financing BoP was almost shifted to non-debt flows during the liberalisation period. Non-debt flows has greatly increased in the liberalisation period. Debt flows also considerably increased in post 2003-04 period. Global economic crisis occurred in the latter half of last decade made management of BoP a difficult task in 2008-09 and it reinforced the concern of financing BoP in the liberalisation period. Study had two objectives, first objective was to analyse how the current account is financed during the post liberalisation period. Second objective is to examine the financing of BoP in terms of debt and non-debt creating flows during the post liberalisation period.

Study shows that the CAD would have squeezed further if we have taken care of some aspects in current account. Spillover of public sector deficit to CAD has declined but spillover of private corporate sector deficit to CAD has drastically increased in post 2003-04 periods. Trade deficit financed with 'invisible' keeps on increasing and helped to lower CAD in the liberalisation period. Huge private transfers and buoyant software exports are the main contributors to invisible balance. Imports of Petroleum Oil and Lubricant (POL), Gold and silver, defense are the major factors for the increase in merchandise import and hence the reason for increase in the trade deficit. Available data hardly show any evidence on increased strength owing to the observed shift in the financing BoP. Along with Foreign Direct Investment (FDI), Foreign Portfolio Investment (FPI) too largely contributed to financing BoP during the post liberalisation period. Contrary to the expectation, foreign investment has imparted huge cost on BoP. Apart from dividend earnings, FPI also earns huge capital gain from India; a significant part of it was repatriated. Instead of giving contribution to current account, FDI companies are increasingly contributing to trade deficit in India since 2003-04. Net foreign exchange earnings of FDI companies have been negative and the rate of negative contribution has increased immensely in the post 2003-04 period. However, increased outward FDI from India had not created any adverse situation in BoP. For debt flows, cost of borrowing has been declining in the liberalisation period. Along with declining the cost of borrowings, quality of debt flows have also increased due to the conscious debt management policies in India. Study concludes by proposing the need for a detailed policy framework for non-debt flows to get its benefit to BoP.

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## CONTENTS

	Title	Page No.
	<i>List of Tables</i>	ix
	<i>List of Figures</i>	x
	<i>Abbreviation</i>	x-xii
<b>Chapter 1</b>	<b>Introduction</b>	<b>1-21</b>
	1.1 Background of the Study	1
	1.2 Balance of Payments:- Meaning, Definition and Component	3
	1.3 Concept of Financing Balance of Payments	11
	1.4 Overview of Balance of Payments in India up to Liberalisation in 1991	11
	1.5 Review of Literature	13
	1.6 Statement of the Problem	16
	1.7 Objective of the Study	17
	1.8 Data and Methodology	17
	1.9 Chapter Scheme	17
	1.10 Limitation of the Study	18
	Annexure 1	19
<b>Chapter 2</b>	<b>Current Account of Balance of Payments: An Analysis of Deficit</b>	<b>22-51</b>
	2.1 Introduction	22
	2.2 Saving and Investment and Current Account in India	22
	2.3 Current Account of Balance of Payments: A Decomposition	28
	2.4 Current Account of Balance of Payments: An Account wise Disaggregation	30
	2.5 Conclusion	45
	Annexure 2	48
<b>Chapter 3</b>	<b>Financing Balance of Payments: The Role of Non Debt Creating Flows</b>	<b>52-79</b>
	3.1 Introduction	52
	3.2 Major Policy Changes Related to BoP in Post Liberalisation Period	53
	3.3 Foreign Investment to India	55
	3.4 Foreign Investment and Balance of Payments Financing in India	58
	3.5 Foreign Portfolio Investment and its Effect on Balance of Payments	59
	3.6 Foreign Direct Investment and its Effects on Balance of Payments	67
	3.7 Conclusion	77
	Annexure 3	79
<b>Chapter 4</b>	<b>Financing Balance of Payments: The Role of Debt Creating Flows</b>	<b>80-100</b>
	4.1 Introduction	80
	4.2 Overview of Debt Flows in Liberalisation Period	80
	4.3 Dependence of Debt Flows for Financing Balance of Payments	83
	4.4 Resurgence of Debt Flows into India	84
	4.5 Effect of Debt Flows on Balance of Payments	87
	4.6 External Assistance to India and Interest Bearing Loans	94
	4.7 Conclusion	97
	Annexure 4	99
<b>Chapter 5</b>	<b>Summary of Findings and Conclusions</b>	<b>101-108</b>
	5.1 Policy Recommendations	107
	5.2 Scope for Further Research	107
	<b>Bibliography</b>	<b>109-116</b>



## LIST OF TABLES

Table No.	Title	Page No.
2.1	Correlation between Current Account Deficit and Net saving of three sectors	26
2.2	Industry wise Investment (Gross Capital Formation) in India	27
2.3	Decomposition of Current Account Deficit	29
2.4	Percentage of Trade Deficit financed by Invisibles	31
2.5	Decomposition of Trade Account Deficit	33
2.6	Arms Import to India	36
2.7	Unit Value and Quantum Growth in Export and Import	36
2.8	Major Components of Invisible Account	39
2.9	Composition of India's Services Exports	40
2.10	Non Software Miscellaneous	42
2.11	Selected Indicators of Private Transfers in India	43
2.12	Investment Income Account	44
2.13	Main Components of Investment Income Account	45
3.1	Summary of Major Policy Changes Related to Balance of Payments during Liberalisation period.	53
3.2	Share of Non debt Creating flows in the total Net Capital flows to India	57
3.3	Foreign Portfolio Investment and Its effect on Balance of Payments	61
3.4	Share holding of FII in Bombay Stock Exchange	64
3.5	FII Market Capitalisation in Different Company Categories in BSE	65
3.6	FII share in the market Capitalisation of BSE	67
3.7	Contribution of FDI firms to Trade Account balance in India	71
3.8	Net Foreign Exchange Earning Rate of FDI firms	73
4.1	Share of Debt Flows in the Total Net Capital flows	82
4.2	Dependence on Debt Flows for Financing BoP in Post Liberalisation	83
4.3	Average Maturity of External Commercial Borrowings	85
4.4	End use of External Commercial Borrowings	85
4.5	Components of Short term Debt in India	86
4.6	Average Interest Rate of Debt	88
4.7	Average Maturity of Debt	90
4.8	Average Grant Element of Debt	91
4.9	Average Grace Period of Debt	92
4.10	Weighted Average Interest Rate in the Different Categories of Debt	93
4.11	Weighted Average Interest Rate on External Borrowings from Different Sources	95
4.12	Comparative Analysis of Debt Service Liability on External and Domestic Borrowings	96

## LIST OF FIGURES

Figure No.	Title	Page No.
1.1	Debt Creating and Non debt flows	10
2.1	Saving and Investment and Current Account deficit in India	24
2.2	Trade and Invisible balance	31
2.3	Divergence between Import and Export Value, RBI versus DGCI&S	35
3.1	Net Foreign Investment in India	55
3.2	Inward and Outward FDI	56
3.3	Foreign Investment and Financing Balance of Payments	58
3.4	Source of Raw material, components stores and Spares used by FDI companies	69
3.5	Average FDI firm Contribution to Trade balance in India	72
3.6	Average Net Foreign Exchange Earnings of FDI firm	74
4.1	Monthly Yield Rate on Corporate Debt Papers (with AAA rating) for five Year maturity and LIBOUR	84

## ABBREVIATION

ADB	:Asian Development Bank
ADR	:American Depository Receipt
BoP	:Balance of Payments
BSE	:Bombay Stock Exchange
CA	:Current Account
CAB	:Current Account Balance
CAC	:Capital Account Convertibility
CAD	:Current Account Deficit
CIF	:Cost Insurance Freight
CMIE	:Center for Monitoring Indian Economy
CSO	:Central Statistical Organisation
DGCI&S	:Director General of Commercial Intelligence and Statistics
ECB	:External Commercial Borrowing
EEC	:European Economic Community
FCCB	:Foreign Currency Convertible Bond
FDI	:Foreign Direct Investment
FDIC	:Foraging Direct Investment Companies
FI	:Foreign Investment
FII	:Foreign Institutional Investment
FIPC	:Foreign Investment Promotion Council
FOB	:Free on Bond
FPI	:Foreign Portfolio Investment
FRBM	:Fiscal Responsibility and Budget Management
G.n.i.e	:Government Not Included Elsewhere
GCF	:Gross Capital Formation
GDCF	:Gross Domestic Capital Formation
GDF	:Global Development Finance
GDP	:Gross Domestic Product
GDR	:Global Depository Receipt
HS	:Harmonized System
I	:Investment
IBRD	:International Bank for Reconstruction and Development
IDA	:International Development Association
IFC	:International Finance Commission
Ig	:Government Investment
Ih	:Household sector Investment
IMF	:International Monetary Fund

### **Abbreviation Contd.**

Ip	:Private Investment
Ipc	:Private corporate sector Investment
IT	:Information Technology
KA	:Capital Account
LERM	:Liberalized Exchange Rate Management System
LIBOR	:London Inter Bank Offered Rate
M	:Imports
MT & LT	:Medium Term and Long Term
NCT	:Net Current Transfer
NRI	:Non Resident Indian
NSE	:National Stock Exchange
NY	:Net Income
OFDI	:Outward Foreign Direct Investment
POL	:Petroleum oil Lubricant
PSU	:Public Sector Undertaking
R	:Foreign Exchange Reserve
RBI	:Reserve Bank of India
RPA	:Rupee Payment Area
RS	:Rupees
S	:Saving
SDR	:Special Drawing Right
SEBI	:Securities and Exchange Board of India
SENSEX	:Sensltivity Index
Sg	:Government saving
Sh	:Household sector saving
SIPRI	:Stockholm International Peace Research Institute
Sp	:Private savings
Spc	:Private corporate sectors savings
SPV	:Special Purpose Vehicle
U.K	:United Kingdom
US	:United States of America
X	:Exports

# Chapter 1

## INTRODUCTION

### 1.1 Background of the Study

Balance of Payments (BoP) accounting is considered as *sine-qua-non* for the effective and efficient economic management of a country. Moreover it serves as an important indicator for policy makers in the globalised economy. According to Jalan (1991b), from 1956 to 1991, in almost all the years, India had faced BoP problems of varying intensities<sup>1</sup>. However, India faced severe BoP problem in 1991, contributed mainly by financing higher current account deficit with highly volatile debt capital flows. Phenomenon of increasing current account deficit during the second half of 1980's made external assistance fall short of financing need. Therefore every incremental amount of current account deficit was being financed with costlier debt flows such as External Commercial Borrowings (ECB), Non Resident Indian (NRI) deposit and short term debt (Jalan, 1991b). As a result of various uncertainties<sup>2</sup>, investors lost confidence in Indian economy and it resulted in a massive outflow of capital. At the end of June 1991, foreign exchange reserve was reduced to \$1.12 billion, sufficient for only three weeks of import and the country faced a BoP crisis, forcing the government to go for economic liberalisation. Consequently, Government appointed high level committee for reforming BoP<sup>3</sup> in India. The Committee emphasised that the need to keep current account deficit at minimum level. The Committee also recommended that there must be a shift in financing BoP from debt to non-debt flows for having a stable BoP. Since then, India have had a favorable BoP situation for

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<sup>1</sup> Author used two criteria's to measure the BoP problem in a particular year, first one is more than one percentage of current account deficit in a particular year, where as second one is shortage in foreign exchange to cover three months of imports

<sup>2</sup> Gulf war in 1991 was the main uncertainty during that period. Accordingly, there was a fall in remittances from non resident Indians. Due to the war, previously strong inflows on non-resident Indian deposits had shifted to net outflows. The Gulf crisis, also resulted on a fall in the availability of commercial borrowings. The Situation was further worsened because of the political uncertainty during that period of time [After a poor performance in the 1989 elections, the previous ruling party (Congress), chaired by Mr: Rajiv Gandhi refused to form a coalition government. Instead, the next largest party, Janata Dal, formed a coalition government, headed by Mr.V.P. Singh. However, the coalition became embroiled in caste and religious disputes and riots spread throughout the country. Singh's government fell immediately after his forced resignation in December 1990. A caretaker government was set up until the new elections that were scheduled for May 1991. These events heightened political uncertainty, which came to a head when Rajiv Gandhi was assassinated on May 21, 1991, while campaigning for the elections (Cerra and Saxena, 2002)] and finally credit rating agencies downgraded India's which further worsened the situation.

<sup>3</sup> The High level BoP committee was constituted by the government under the Chairmanship of Dr.C.Rangarajan (vide G.O. No.1 (24)/91-BP dated November 19, 1991).

nearly two decades, manifested by moderate current account deficit almost financed with non-debt capital flows. Stability and cost of financing are two reasons for choosing non-debt creating flows over the debt flows. Financing BoP with debt flows would generate fixed cost of amortisation whereas non-debt flows need to be serviced only after the profits are made (Jalan, 1991b). Moreover it is assumed that foreign investment or non-debt flows would in turn strengthen BoP by way of additional export of goods and services especially from the firm which received Foreign Direct Investment (FDI). Foreign investment largely increased in the post liberalisation period, but major portion was contributed by Foreign Portfolio Investment (FPI) which normally do not have any qualities of FDI. During the Post liberalisation period, both inward and Outward Foreign Direct Investment (OFDI) has significantly increased. But OFDI significantly increased from 2003-04 onwards and it would have serious repercussion on BoP if these OFDI financed from within India. If OFDI is domestically financed it would increase current account deficit through widening the saving investment gap. Increased OFDI can contribute to current account possibly through the dividend and profit earning from companies which received the OFDI. On the other hand, private debt flows to India significantly increased from 2003-04 onwards and it in turn increased the share of debt flows. It is expected that increase in the debt flows would have serious effect on BoP in future, especially on the current account and it was conditioned by the cost of borrowings of these debts.

The Global economic crisis occurred in the latter half of the last decade made BoP management a difficult task in 2008-09 and it reinforced the concern of BoP financing in liberalisation period. Due to massive capital outflows, 75 per cent of current account deficit was being necessitated exceptional kind of financing and we have financed it with foreign exchange reserve. Although it was a short term adverse situation, but the problem of financing BoP in 2008-09 almost resembled the situation in 1991. Therefore, like the past, BoP financing is still a problem even in this stage of liberalisation in India.

In order to step up into the subject matter of the study, the introductory chapter is organised into following sections. Apart from Background of the Study, remaining sections are as follows: 1.2 Balance of Payments:- Meaning, Definition and Components, 1.3 Concept of Balance of Payments Financing, 1.4 Overview of

Balance of Payments in India up to liberalisation in 1991, 1.5 Review of Literature, 1.6 Statement of Problem, 1.7 Objective of the Study, 1.8 Data and Methodology, 1.9 Chapter Scheme, 1.10 Limitation of the Study.

## **1.2 Balance of Payments: - Meaning, Definition and Components**

The BoP accounts are a summary of the nation's financial relationship with the rest of the world. It records the market value of goods, services, and financial assets that domestic residents exchange with residents from other nations during an accounting period.

IMF BoP Manual, fifth edition (1993) defines *“The Balance of Payment is a statistical statement that systematically summarizes, for a specific time period, the economic transactions of an economy with the rest of the world. Transactions, for the most part between residents and non residents, consists of those involving goods, services, and income: those involving financial claims on, and liabilities to, the rest of the world: those (such as gifts) classified as transfers, which involve offsetting entries to balance – in an accounting sense- one sided transactions”*

The basic convention applied in constructing a BoP statement is that every recorded transaction is represented by two entries with equal values. One of these entries is designed a credit with positive sign; the other is designed a debit with a negative sign. In principle, sum of all the credit entries is identical to the sum of all debit entries, and the net balance of all entries in the statement is zero (IMF, 1993).

### **1.2.1 Balance of Payments Accounts**

There are three main BoP concepts- current account (CA), capital account (KA) and overall balance (R) and these three main heads are further divided into several sub heads and components<sup>4</sup>.

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<sup>4</sup> For detailed classification see annexure 1.1

## A) Current Account (CA)

In BoP accounting, transaction relating to goods and services, income and current transfers constitutes the Current account. Current account is functionally classified in two broad categories: Trade and Invisibles. Therefore Current account balance is nothing <sup>the</sup> sum of Trade and Invisible balance and we can write in following way

$$\text{Current account balance} = \text{Trade balance} + \text{Invisible balance}$$

### A.1) Trade Account

Trade account covers all the transactions relating to movable goods where the ownership of goods changes from residents to non residents or vice versa. Trade account has two components viz the movement of goods from residents to non residents, i.e. exports and that from the non residents to residents, i.e. imports. Export takes the credit entry where as import takes the debit entry in the trade accounts. BoP statement put out by Indian authority makes a major departure from the IMF manual. IMF manual insists that every country must set out export and import on FOB (free on bond). In India, due to the availability of data export are present on FOB (free on bond) basis but they set out imports on CIF (cost insurance and freight) basis. In addition to that, the item Non-Monetary Gold Movement has been deleted from invisibles in conformity with IMF Manual on BoP (5th edition) from May 1993 onwards; and these entries have been included under merchandise imports.

*data on gold imports & Exports.*

### A.2) Invisible Account

Invisible account mainly comprises three major heads namely services, income and current transfers (i.e., payment and remittance unrequested or without quid-pro-quo or without any repayment obligations). The IMF classifies non merchandise current account transactions into as many as thirteen items. Because of data availability, Indian authority as of now provides the invisible account data under nine broad heads. Invisible account mainly consist of three heads namely service, transfers, and income, in which service head alone consist of five sub heads namely travel, transportation, insurance, government not included elsewhere (g.n.i.e) and miscellaneous. Transfer account consists of both official and private transfers and income account consist of compensation of employees and investment income account.



## **A.2.a) Services**

Service is the first and important subhead in Invisible account and consist of travel, transportation, insurance, g.n.i.e and miscellaneous.

### **A.2.a.1) Travel**

Travel covers primarily the goods and services acquired from an country by travelers (not resident) during visits of less than one year in that country. Travelers include tourists, who spend at least one night in the country visited, and same day travelers or excursionists, who stay less than twenty four hours and do not remain over night.

### **A.2.a.2) Transportation**

Transportation covers all the transportation (sea, air, and other including land, internal waterway, space and pipe line) services performed by residents of one country for those of another. It involves the carriage of passengers, movement of goods (freight), rentals (charters) of carriers with crew, and related supporting and auxiliary services.

### **A.2.a.3) Insurance**

Insurance covers the provision of various types of insurance to non residents by resident insurance enterprises, and vice versa. Such services covers freight insurance (ie, insurance on goods that are in the process of being exported or imported): other types of direct insurance (ie, life- including pension and annuity services, other casualty or accident, health general liability, fire, marine, aviation, etc) and re insurance.

### **A.2.a.4) Government not included elsewhere (g.n.i.e)**

Government not included elsewhere (g.n.i.e) includes official transactions in goods and services, which are not classified in the merchandise or anywhere else. G.n.i.e includes expenditure by the country's diplomatic mission, embassies and consultation and contribution to international agencies made by the country.

### **A.2.a.5) Miscellaneous**

Miscellaneous includes all the services transactions other than those covered under different heads in the current account. In India, 'Miscellaneous services' mainly encompass communication services, construction services, financial services, software services, news agency services, royalties, copyright and license fees, management services and business services. In the regular dissemination of BoP in India, separate head for software service has been given from 2000-01 onwards and as

separate head for business, financial and communication service is from 2004-05 onwards.

### **A.2.b) Transfers**

Transfers or unrequited/ unilateral transfers comprise of transfers of current goods and services of monies and other forms of claim without a quid-pro-quo that has a measureable value. There is no simultaneous flow of current goods and services or claims in opposite direction in this case. Unilateral transfers can be further classified into two heads-namely official and private transfers.

#### **A.2.b.1) Official transfers**

Official transfers cover unrequited transfers between resident official sector and non residents

#### **A.2.b.2) Private transfers**

This includes all kinds of transfers other than official sector. Private transfer mainly consist remittances under family maintenance, local withdrawals from NRI deposits, Gold and silver brought through passenger baggage, personal gifts/donations to charitable/religious institutions.

### **A.2.c) Income Account**

Income account consists upon compensation of employees<sup>5</sup> and investment income account.

#### **A.2.c.1) Compensation of Employee**

Compensation of employees covers wages salaries and other benefits, in cash or in kind, and includes those of border, seasonal, and other non resident workers.

#### **A.2.c.2) Investment income**

'Investment income' represents the servicing of capital transactions (both debt and non-debt). These transactions are in the form of interest, dividend, profit and others for servicing of capital transactions. Interest payments represent servicing of debt liabilities, while the dividend and profit payments reflect the servicing of non-debt (foreign direct investment and portfolio investment) liabilities. Investment income payments move in tandem with India's external liabilities, while investment income receipts get linked to India's external assets including foreign exchange reserves.

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<sup>5</sup> In accordance with the 5<sup>th</sup> edition of IMF BoP Manual, in India's BoP, compensation of employees has been shown under the head of income from 1997-98 onwards.

Investment income receipts comprise interest received on loans to non-residents, dividend/profit received by Indians on foreign investments, reinvested earnings of Indian FDI companies abroad, interest received on debentures etc. Investment income payments comprise payment of interest on non-received deposits, payment of interest on loans from non-residents, payment of dividend/profit to non-resident shareholders, reinvested earnings of the FDI companies, payments of interest on debentures. Undistributed income or retained earnings<sup>6</sup> of an enterprise held by non-residents are conceived of as a payment of income to the foreign investor and simultaneous reinvestment of that income by the foreign investor in the same resident direct investment enterprise. Such income is recorded as a component of foreign investment income payment in the current account matched by the flow of foreign investment in the capital account.

## **B) Capital Account (KA)**

Transactions relating to claims and liabilities of a financial nature and capital transfers and acquisition or disposals of non produced, non financial assets which go to finance the deficit on current account, or to absorb its surplus, form the capital account. In other words the capital account measures the capital outflow and the capital inflow into the economy. A capital outflow is the purchase of foreign assets by domestic agents such as households and firms. A capital inflow is the purchase of domestic assets by foreign households and firms. Though the IMF manual distinguishes a large number of items under the capital account, India, as in the case of many other countries, has dovetailed the accounting classification to fit into its own institutional structure and analytical needs. Since 1991, India adopted the classification as follows:

### **B.1) Foreign Investment**

This includes the investment from abroad, in shares of foreign controlled domestic joint stock companies and in non controlled joint stock companies, investment in real

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<sup>6</sup> In allying with international standard, definition of FDI in India has changed since 2000. From 2000-01, FDI consist of equity, reinvested earnings and other capital. From 2000 onwards reinvested earning starts entering in the debit side of investment income account part of current account. At a conceptual level, it is important to recognize that the flow of FDI in terms of reinvested earnings has neutral effect on overall BoP position. The amount recorded under reinvested earnings included in the capital account has a contra entry under the investment income in the current account. It means that depending on inflow/outflow in the capital account there will be an offsetting entry in the current account. For example, if the reinvested earnings recorded an inflow under capital account, it will be an outflow under the current account and vice versa.

estate, repatriation of domestic investment abroad, sale proceeds of shares of companies registered outside the domestic country but held by the residents of domestic countries, etc. Foreign investment also termed as non-debt capital flows. Foreign investment is classified into two heads- FDI and FPI.

### **B.1.a) Foreign Direct Investment**

FDI is a category of international investment that reflects the objective of a resident entity in one country obtaining a lasting interest in an enterprise resident in another country. Foreign direct investment enterprise is defined as incorporated enterprises in which a direct investor, who is resident in another economy, owns 10% or more of the ordinary shares or voting power or equivalent (IMF, 1993). In Indian BoP statement, FDI are categorized into two heads; First, FDI in India. Second, FDI in Abroad. Under the head 'FDI in India', credit side shows the inflow of investment where as the debit entry shows outflow in the form of disinvestment. Under the head, 'FDI abroad', debit side represent out flow of investment, where as credit side represent inflow in the form of disinvestment.

### **B.1.b) Foreign Portfolio Investment**

FPI, on the other hand is the acquisition of an assets that does not give the purchaser control. FPI in India consist of Foreign Institutional Investment (FII), American Depository Receipt (ADR) and Global Depository Receipt (GDR).

## **B.2) Loans**

A very important component of capital account is loans of different kinds received/ given by private institution of any kind or government institution/organisation. In India's BoP, loans are divided under three heads. These heads are namely External assistance, Medium and long term commercial borrowings, short term credit.

### **B.2.a) External Assistance**

External assistance is the concessional development assistance that any country receives/gives to any other country. External assistance is different from unilateral transfers because unlike the latter it involves repayment liabilities as well. The main sources from which a country gets external assistance are International Bank for Reconstruction and Development (IBRD), International Development Association (IDA), Asian Development Bank (ADB) etc.

### **B.2.b) Medium and long term commercial borrowings (External Commercial Borrowings)**

These include borrowings from the outside world at commercial terms and condition.

### **B.2.c) Short Term Credit**

These include transactions in the nature of short term borrowings and repayments. The original maturity of short terms capital is normally one year or less.

### **B.3) Banking Capital**

Banking capital comprises external assets and liabilities of commercial and Public sector banks authorized to deal in foreign exchange, and movement in balance of foreign central banks and international institutions like, World Bank, IDA, ADB and IFC maintained with RBI. An important component of banking capital is non-resident (NRI) deposits.

### **B.4) Rupees Debt Service**

Rupee debt services incorporated in India's BoP on the recommendation of high-level committee on BoP. And this head consist of interest payment, re-payment of principal debt for the erstwhile Rupee Payments Area (RPA).

### **B.5) Other Capital**

Other capital is a residual item and broadly includes delayed export's receipts, funds raised and held abroad by Indian corporate, India's subscriptions to international institutions and quota payments to IMF. Delayed export receipts essentially arise from the leads and lags between the physical shipment of goods recorded by the customs and receipt of funds through banking channel. It also includes rupee value of gold acquisition by the RBI.

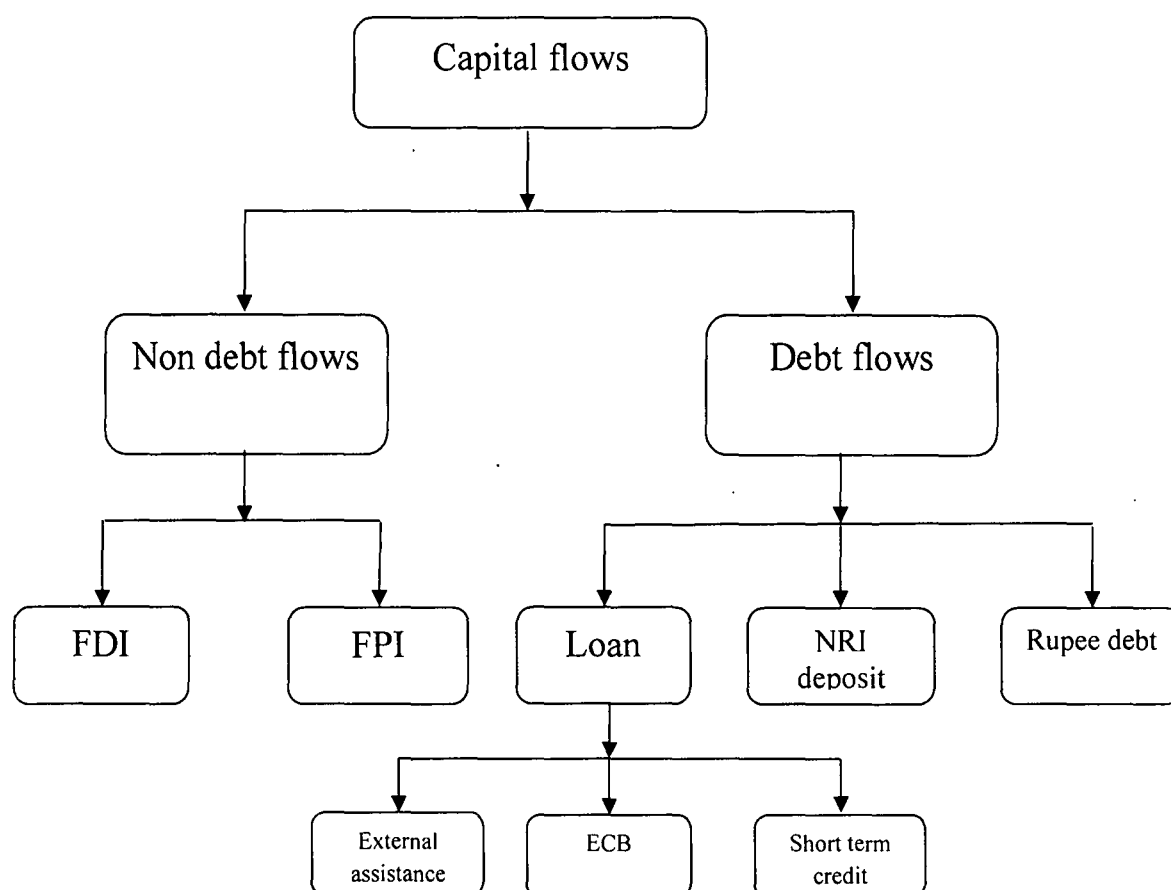
### **B.6) Errors and Omissions**

Since BoP data recorded using the double entry book keeping method; by definition the sum of all credit terms should be equal to the sum of all debits. However, due to a number of reasons credits are not equal to debits and these can arise some error. These errors form the errors and omissions in the BoP. Errors and omissions can be either positive if receipts are understated or payments overstated and vice versa.

### C) Overall balance (R)

Monetary movements or movement in reserve comprises changes in the foreign currency assets held by the RBI and SDR balances held by the government of India. These are recorded after excluding changes on account of valuation. Valuation changes arise because foreign currency assets are expressed in US dollar terms and they include the effect of appreciation/depreciation of non-US currencies (such as Euro, Sterling, Yen and others) held in reserves. Furthermore, this item does not include reserve position with IMF. A negative value to the reserves represents an increase in the official reserves and positive value indicates decrease in the holding of reserves by the central bank.

#### 1.2.2 Debt and Non Debt Capital Flows



**Figure 1.1: Debt and Non debt flows**

*Source: Constructed on the bases of Balance of Payments statement in India*

Broadly, capital flows can be divided into both debt and non-debt flows, in which FDI and FPI jointly forms the non-debt capital flows where as External assistance, ECB, NRI deposit and short term credit mainly constitute major debt flows in to India.

### 1.3 Concept of Financing Balance of Payments

Idea of financing BoP can be conceptualised in following way. BoP accounting contains three sub balance namely current account, capital account and reserve account, in which reserve account balance is nothing but the sum of current and capital account. Therefore we can write

$$CA + KA = R \text{ --- (1)}$$

Where, CA = Current account, KA = Capital account, R = Reserve account

The sum of current and capital account balance is overall balance or reserve account. Overall balance can have net debit or net credit. If it is a net credit, domestic residents are receiving more from abroad. BoP accounting is based on the double entry principle with every item booked as credit and a debit. Therefore, deficit and surplus can only show up in the balance; however, BoP will always in balance and equation for BoP would be zero.

$$BoP = CA + KA - R = 0 \text{ --- (2)}$$

Current account deficit does not matter when it seen in terms of BoP framework. In a normal situation, deficit in the current account must be financed by the surplus in the capital account and this is termed as financing BoP. To be more precise, suppose if a country's reserve are depleted ( $R=0$ ) or if a certain level of foreign exchange reserve must be maintained, a current account deficit must be fully be compensated by a net inflow of foreign capital. Moreover, a country will accumulate foreign exchange reserve when the sum of the current account and capital account are positive.

### 1.4 Overview of Balance of Payments in India up to Liberalisation in 1991

The period from 1951 to 1991 can be divided into two sub period on the basis of nature of financing BoP. The two sub periods are 1951-52 to 1979-80 and 1980-81 to 1990-91. During the first period official debt flows on concessional terms were mainly used for financing BoP, where as in the second period along with the official debt, private debt were also greatly used for financing BoP.

**The First Period [1951-52 to 1979-80]:** At the time of independence, India faced significant deficit in the BoP mainly due to the high level of import and capital outflows, consequently there was a running down of accumulated sterling balance

(Reddy, 2006a). After independence, India opted for a model of development characterised by what was then perceived as self reliance. In a nutshell, entire year under this phase was very difficult for India's BoP. This was mainly because of slow export growth in relation to import requirement and some external factors. Under this phase, India had to face three wars<sup>7</sup> and two oil shocks. First oil shock was happened in 1973-74, but there was no much spill over effect into BoP. The impact of oil shock to BoP was smoothened by the combined effect of buoyant exports, increase in the private transfers and external aid flows (Jalan, 1991b). Essential feature of this phase was the mode of financing, current account deficit in this phase was almost financed by the inflows of official debt on concessional terms. There was hardly any usage of commercial debt for financing BoP. The end of this phase, particularly from 1976-77 to 1979-80, considered as the golden years of BoP, in which India had a small current account surplus in two years. Consequently foreign exchange reserve had increased and rose to level which is equivalent to about seven months of import in the end of seventies. Increase in the export along with the increase in the net invisible earnings was the main reason for improvement in the BoP in those periods. Export is benefited by the expansion in the global trade, rose at an annual rate of 6.8 per cent in volume terms and 15.6 per cent in dollars terms during that period. Due to the increase in the earning under transportation, travel, private transfers, total net invisible earning increased from Rs 193 Crores in 1974-75 to Rs 2486 Crore in 1979-80 (Rangarajan, 1994). During the end of 1970's issues relating the BoP came to occupy the center stage in terms of India's macroeconomic management. The second oil shock occurred in the end of 1970's severely affected the BoP in India. Spill over of second oil shock to BoP was more than what was happened in first oil shock in 1973-74.

**The second period [1980-81 to 1990-91]:** Because of the adverse situation in the end of 1970's, India had made an agreement with IMF in 1981, for a loan of SDR 5 billion under the extended fund facility. However, there was some improvement in the BoP during 1982 and 1985. This improvement was mainly due to the increase in the domestic production of crude oil, which helped to reduce the growth in total imports. Domestic production of crude oil has increased from 162 million tons in 1981-82 to

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<sup>7</sup> India had to engage three wars under this phase, first two were with China in 1962 and in 1965 and the third one was in 1971 with Pakistan



290 million tons in 1984-85, but exports were sluggish and showed a growth rate of 3.2% in the period between 1982 and 1985 (Jalan, 1991b). Invisible account also deteriorated during this period mainly due to two reasons, first, high increase in the interest payment; second, stagnation in private transfer and it mainly due to the arrest in the labor migration boom. BoP problem became acute after second half of the eighties and continued up to the liberalisation in 1991. In this period, external assistance fall short of financing need, and entire incremental deficit was financed through costlier forms such as ECB, NRI deposit, and short term credit (Jalan, 1991b). The current account deficit had been showing an increasing trend throughout the late 1980. One main reason was the persistence of high fiscal deficit, averaging around about 8.7% of GDP. High fiscal deficit during that period partly financed through private sector surplus. Higher reliance on monetary financing of deficit also led to rise in inflation to double digit in the early 1990's and adversely affected the relative price competitiveness of India's exports (Reddy, 2006a). Besides, dependence on high cost external borrowing in the 1980's raised debt service ratio and debt service as a percentage of goods and service, increased from 9.3 % in 1980 to 18.2% in 1984 and further to 26.8% in 1990. The economy was plunged into a crisis as soon as these sources of financing were dried up.

The weaknesses of Indian economy were exposed by the Gulf crisis of 1990. The current account deficit rose to 3.1% of GDP in 1990-91. During the time, credit rating of the country was lowered, restricting the country's access to commercial borrowing and unwillingness on the part of normal banking channels to provide renewal of short term credit to Indian bank. Due to the lack of confidence on Indian economy resulted a flight of NRI deposit. The severity of the BoP crisis in the early 1990's could be gauged from the fact that India's foreign currency assets depleted rapidly from \$ 3.1 billion in August 1990 to \$ 975 million on July 12, 1991 (Reddy, 2006a).

### **1.5 Review of Literature**

The academic literatures dealing exclusively with BoP in India are limited. The issues discussed in the existing literature can be categorised into four. These are namely, the effect of money supply on BoP, issues related to current account, issues in foreign exchange reserves and finally issues regarding BoP financing. Following paragraphs will discuss these issues in detail.

According to monetarist approach on BoP, money supply is the significant factor which influences the BoP situation in a country. In Indian context, Kannan (1989), Ramen (2005) analysed the influence of money supply on BoP using econometric technique and these studies argues that monetary disequilibrium has been the main cause of BoP problem in India, and budgetary deficit is the main contributory factor for monetary disequilibrium.

The current account has attracted a fair amount of discussion in the literature. Issues in the current account can be categorised into five parts. First major issue discussed in the literature related to current account the current account deficit and its relationship with trade and invisible balance (Jalan, 1991b; Reddy, 2006a). Secondly, merchandise export and import especially, its trends, compositional changes, diversification, determinants and competitiveness are other set of issues discussed in the literatures (Veeramani, 2007 and 2008; Mallik, 2005; Seshadri, 2009). Thirdly, issues are also discussed in the literature related to the individual items under current account such as service export particularly software export and private transfers. These studies mainly examine their compositional change, determinants and geographical diversification (Singh, 2009; Gupta, 2006).

The fourth issue is associated with identifying the spillover of fiscal deficit to current account deficit. One of such study conducted by Jalan (1991b), argues that higher fiscal deficit during 1980 significantly spilled over into current account deficit and hence it remained as one of the main reason for increasing current account deficit in the latter half of 1980. Virmani (2003) measured the impact of fiscal deficit on current account from 1970-71 to 2000-01 study found out that 1 per cent GDP increase in fiscal deficit of central government would increase 0.47% GDP increase in current account deficit. However Singh (2009) explores the structural shift in the current account of India from 1950 to 2008 and argues that spill over of fiscal deficit into current account significantly reduced in the post liberalisation period. The study also found out that, this phenomenon is mainly because of financing fiscal deficit with high household saving.

Last issue is the discussion of effect of exchange rate on current account. Exchange rate considered as one of the powerful instruments which can have effect on BoP of the country. In Indian context, Sarkar (1994), using the data from 1971 to 1991,

argues that, exchange rate both nominal and real do not have any meaningful relationship with BoP. His cointegration analysis reveals that the real (and nominal) exchange rate movement do not have any meaningful relation with India's export performance and inflow of foreign fund by way of private remittance; nor these have any relationship with India's balance of trade and payment behavior. Virmani's (2003) study provides a contrary result to Sarkar's findings. Study used the data from 1970-71 to 1999-2000 and argues that exchange rate is a powerful instrument for adjusting current account deficit in India.

Foreign exchange reserve of Balance of Payments is another focused area in the literatures on BoP. Huge growth of foreign exchange reserves in India has attracted lot of researches under these issues. Optimal level of reserves, cost of holding excess reserves and use of reserves are the major issues in foreign exchange reserves (Singh, 2006; Sen, 2005; Kapur and Patel 2003).

In India there have been some studies which touched some parts of the issues of financing Balance of Payments, however, a comprehensive study on the issue of financing BoP in India has not been come so far. One systematic study done by Jalan (1991b) analysed the BoP situation in India between 1956 to 1991, argues that dependence of financing BoP with high cost debt flows during 1980 had risen the debt burden and consequently it remain one of the reasons for rising current account deficit in the latter half of 1980. His study also highlight the fact that, financing BoP with debt flows would generate fixed cost of amortisations where as equity financing needs to be serviced only after profit are made. Financing BoP with FDI is another important critical aspect of the problem. Sen (1995) argues that FDI inflows would create short term adverse situation in BoP, particularly for a developing country. Adverse situation in BoP is mainly happened through the additional borrowing and imports by the firms which received FDI. Chandrasekhar and Ghosh (2002) examined the BoP effect of FDI. Using RBI survey on finance of foreign direct investment firms, they argue that net foreign exchange contribution by these firms are negative and it has been increasing over the years.

To sum up, in India, there has not been any systematic study which analyses the issue of BoP financing in post liberalisation period. Therefore present study is an attempt to fill this gap in the existing literature

## 1.6 Statement of the Problem

Financing a higher current account deficit with highly volatile capital flows were the underlying reason for the BoP crisis in 1991 and forced the country to make radical changes in the policy regime. In response to the crisis, government appointed a high level committee for reforming the BoP in India under the chairmanship of C. Rangarajan. The committee made two important recommendations with regard to financing BoP. First, minimise the current account deficit and second, financing BoP must shift to non-debt creating capital flows. However, unlike past, current account deficit is lowered and it almost financed with non-debt capital flows in the liberalisation period. Stability and the cost of financing are the two reasons for choosing the non debt flows over the debt flows. It must be remembered that financing BoP with debt flows would generate fixed cost of amortization but equity financing need to service only after profit are made. Therefore it is expected that cost of financing BoP has considerably reduced in the post liberalisation period. Moreover, foreign investment would expect to strengthen BoP by the way of additional foreign exchange earnings possibly through export of goods and services especially from firms which received the FDI. During the liberalisation period, government has relaxed number of laws related to FDI policies. Specific policies such as removal of dividend balancing, export obligation of FDI firms can create adverse effect on BoP, if the FDI companies are doing high dividend repatriation and import. Besides, it has been seen that foreign investment greatly increased during the liberalisation period. However, large part of it is contributed by FPI, which do not have any qualities of FDI. During the Post liberalisation period, along with increase in inward FDI, outward foreign direct investment (OFDI) from India also significantly increased, particularly from 2003-04 onwards. OFDI can have serious impact on BoP if it is financed within India. If the OFDI is domestically financed, it can increase current account deficit by widening in the saving investment gap. OFDI can make positive contribution to current account possibly through the dividend and profit earning from companies which received the OFDI. On the other hand, private debt flows to India significantly increased from 2003-04 onwards and in turn caused to increase the share of debt flows in the same period. Thus it has been observed that debt flows were also used along with non-debt flows for financing BoP in the post liberalisation period.

## **1.7 Objective of the Study**

With the given scenario, study analyzes two aspects of above problem:

- 1) To analyse how the current account is financed during the post liberalisation period
- 2) To analyse the BoP financing in terms of debt and non debt flows during the post liberalisation period

## **1.8 Data and Methodology**

The study employs a variety of secondary data source. RBI data is mainly used for the study. Moreover, the data from Center for Monitoring Indian Economy (Prowess data base), Director General of Commercial Intelligence and Statistics (DGCIS), Securities and Exchange Board of India (SEBI) and World bank (Global Development Finance) also used.

Study is undertaken through a detailed disaggregation of BoP and uses exploratory data analysis. Cost of financing BoP with non-debt flows separately calculated for both FDI and FPI. For identifying the cost of BoP financing with FPI, capital gain and dividend are calculated with the use of prowess data base of CMIE. On the other hand, for identifying the cost of financing with FDI, separate analysis is conduct for both inward and outward FDI. In the case of inward FDI, net foreign exchange earning rate of FDI firms is calculated with the help of RBI survey on 'Finance of Foreign Direct Investment Firms'. Moreover, contribution of these FDI firms to trade account is also calculated with the use of same data. In the case of debt flows, cost of financing BoP with debt flows is calculated with the help of data from Global development finance.

## **1.9 Chapter scheme**

In conformity with the objective, the study is divided into five chapters including introduction. The second chapter analyses how the current account is financed in India. This chapter also examines how the current account deficit is minimised in the post liberalisation period. Third and fourth chapters deal with the second objective of the study. The issue of financing BoP in terms of non debt flows is analysed in third

chapter whereas issue of financing BoP with debt flows is analysed in fourth chapter. Last chapter summarises the findings of the study and draw conclusions

### **1.10 Limitation of the study**

Limitation of the thesis can be categorized into five. First, there is only a limited discussion on capital account convertibility debate in India. Second, study does not consider the impact of exchange rate on financing BoP and assumes exchange rate follows an equilibrating function. Third, there is hardly any discussion on the issue of financing BoP in post liberalisation period in relation to growing foreign exchange reserves. Fourth, due to data limitation, for measuring the effect of FDI firms on current account we considers only firm covered in RBI survey. Analysis would have been much stronger if it includes all the FDI firms in India. Fifthly, for FPI we consider only their investments in Bombay Stock Exchanges (BSE). However it should be noted that FPI have limited investment outside BSE.

## Annexure 1.1

BoP COMPONENTS
A) Current account
A. 1) Merchandise account
A. 2) Invisible account
A.2.a) Services
A.2.a.1) Travel
A.2.a.2) Transportation
A.2.a.3) Insurance
A.2.a.4) Government not included elsewhere (g.n.i.e)
A.2.a.5) Miscellaneous
A.2.a.5.1) Miscellaneous of which software's
A.2.a.5.b) Business Services
A.2.a.5.c) Financial Services
A.2.a.5.d) Communication Services
A.2.b) Transfers
A.2.b.1) Official Transfers
A.2.b.2) Private Transfers
A.2.c) Income
A.2.c.1) Investment Income
A.2.c.2) Compensation of Employees
B) Capital Account
B.1) Foreign Investment
B.1.a) Foreign Direct Investment
B.1.a.1) Foreign Direct Investment in India
B.1.a.1.a) Foreign Direct Investment in India – Equity
B.1.a.1.b) Foreign Direct Investment in India - Reinvested Earnings
B.1.a.1.c) Foreign Direct Investment in India - Other Capital
B.1.a.2) Foreign Direct Investment Abroad

B.1.a.2.a) Foreign Direct Investment Abroad – Equity
B.1.a.2.b) Foreign Direct Investment Abroad - Reinvested Earnings
B.1.a.2.c) Foreign Direct Investment Abroad - Other Capital
B.1.b) Foreign Portfolio Investment
B.1.b.1) Foreign Portfolio Investment in India
B.1.b.1.a) Portfolio Investment in India – FIIs
B.1.b.1.b) Portfolio Investment in India - GDRs/ADRs
B.1.b.2) Foreign Portfolio Investment Abroad
B.2) Loans
B.2.a) External Assistance
B.2.a.1) External Assistance by India
B.2.a.2) External Assistance to India
B.2.b) Commercial Borrowings (MT & LT)
B.2.b.1) Commercial Borrowings by India
B.2.b.2) Commercial Borrowings to India
B.2.c) Short Term Credit to India
B.2.c.1) Suppliers' Credit >180 days & Buyers' Credit
B.2.c.2) Suppliers' credit up to 180 days
B.3) Banking Capital
B.3.a) Commercial Banks
B.3.a.1) Assets of Commercial Banks
B.3.a.2) Liabilities of Commercial Banks
B.3.a.2.a) of which: Non-Resident Deposits of Commercial Banks
B.3.b) Others
B.4) Rupee Debt Service



B.5) Other Capital
C) Errors and Omissions
D) Overall Balance
E) Monetary Movements
E.1) I.M.F
E.2) Foreign Exchange Reserves (Increase - / Decrease +)

*Source: Made from Balance of payments statement in India*

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## **Chapter 2**

### **Current Account of Balance of Payments in India: An Analysis of Deficit**

#### **2.1 Introduction**

Current account deficit is a matter of concern particularly for a developing country like India. This concern is mainly due to the problems involved in financing BoP in developing countries. One of the main recommendations of high-level committee on BoP is that availability of external finance should not be the reason for incurring current account deficit; rather deficit must be minimised and it must be financed with normal capital flows<sup>1</sup>. Therefore minimum current account deficit, which also implies less dependence on external finance would be the ideal condition for having a stable BoP. As opposed to the pre liberalisation period, current account deficit was lower during the post 1991 period<sup>2</sup>. However, understanding the reasons behind the current account deficit is important and that would help the authorities to make appropriate policies and consequently it would reduce the need for external financing.

As we have already mentioned the objective of the present chapter is to identify major factors behind the current account deficit during the post liberalisation period. This chapter is organised into five sections including the introduction. Section 2.2 analyses saving and investment scenario and relate it with current account balance in India. Section 2.3 mainly deals with a broad decomposition of current account and provide macro factors behind the current account deficit. Section 2.4 is a logical continuation of preceding section and deals with the account-wise disaggregation of current account. This section also provides micro factors led to current account deficit. Finally section 2.5 summaries the main findings of the chapter.

#### **2.2 Saving and Investment and Current Account in India**

In a macro economic perspective, analysing saving and investment scenario would provide a clear understanding about the current account of country. For a macro

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<sup>1</sup> The High level BoP committee was constituted by the government under the Chairmanship of Dr.C.Rangarajan (vide G.O. No.1 (24)/91-BP dated November 19, 1991).

<sup>2</sup> Current account deficit was average at -1.8% of GDP in the period between 1980-81 and 1989-90, but it reduced to 0.6% between 1990-91 and 2008-09

economic identity, the relationship shows that current account balance would be equal to the difference between domestic saving and investment. If there is a gap between domestic saving and investment or current account deficit, then economy must resort to foreign saving for fill this gap created by the domestic saving and investment. The relationship between the BoP and the domestic economy can be described in following equation

$$CAB = X - M + NY + NCT = S - I \quad \text{-- (1)}$$

Where, X = Export of goods and services, M = Import of goods and services, NY = Net income from abroad, NCT = Net current transfers, S = Saving, I = Investment

Equation (1) clearly establishes the link between Current account and saving investment in the economy. For analysing changes in the current account position of a country, it is therefore important to understand the manner in which these changes reflect movements in savings and investment, for example excess domestic investment over domestic saving can result in current account deficit at least in the short run. More generally equation (1) shows that any changes in the country's current account position (e.g. a larger surplus or smaller deficit) must necessarily matched by an increase in domestic saving relative to investment. The inter relationship between the domestic and external sectors of an economy can be seen in greater detail by distinguishing between the private and government sector

$$CAB = (Sp - Ip) + (Sg - Ig) = S - I \quad \text{-- (2)}$$

Where, CAB = Current account balance, S = Domestic saving, I = Domestic investment, Sp = Private saving, Ip = Private investment, Sg = Govt. saving, Ig = Govt. investment

In equation (2), (Sp - Ip), (Sg - Ig) are respectively the net saving of private sector and public sector. Equation (2) shows that an improvement in the current account balance can be achieved by an improvement in the combined balance of the private and public sector. For e.g. current account deficit would worsen, if there were a reduction in government net saving (Sg - Ig) not accompanied by an increase in the net saving of the private sector.

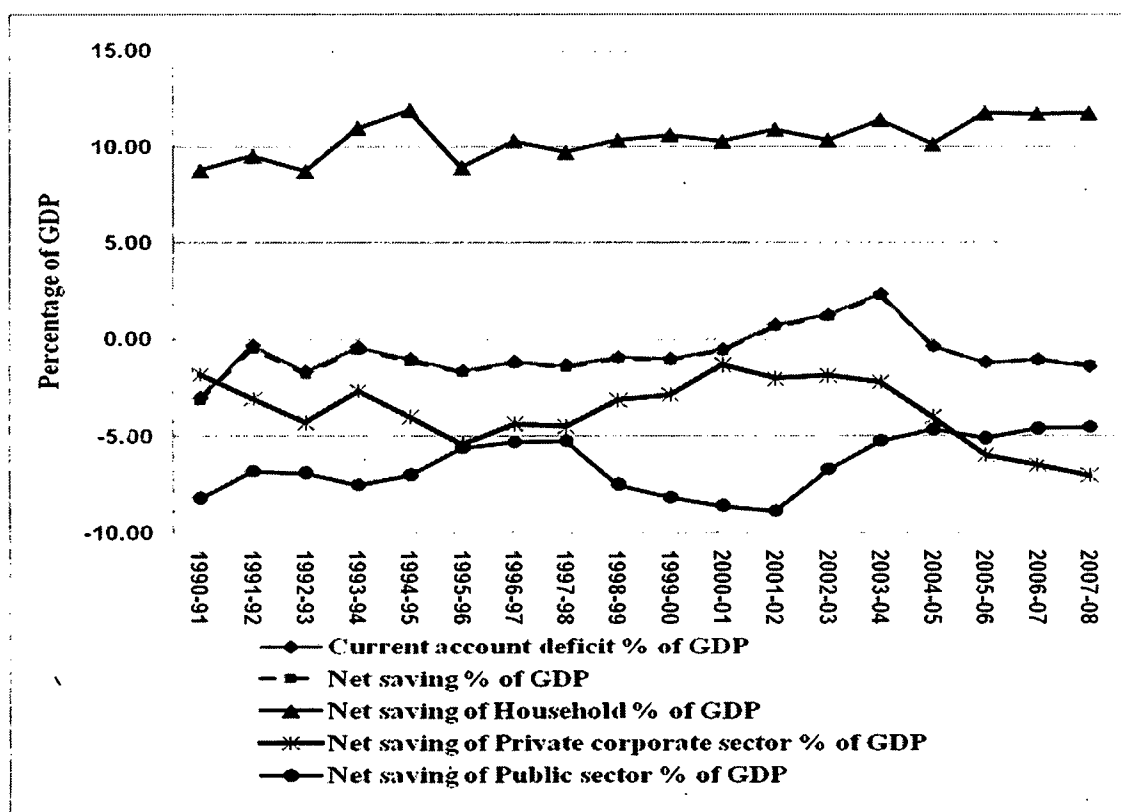
In India saving and investment data are available for three categories, namely households, private corporate sector, and government. We can extend the analysis by

including these three categories into equation (2). Then the resulting equation would be in the following form.

$$CAB = (Sh - Ih) + (Spc - Ipc) + (Sg - Ig) = S - I \quad (3)$$

Where,  $(Sh - Ih)$  = Net saving of the household sector,  $(Spc - Ipc)$  = Net saving of the private corporate sector,  $(Sg - Ig)$  = Net saving of the government sector

Figure 2.1 is drawn on the basis of equation (3) and shows the existence of high correlation or one to one relationship between saving investment gap and current account balance in India. Therefore, analysing the saving and investment at the sectoral level in the economy would provide clear understanding of current account deficit in India.



**Figure 2.1: Saving and investment and current account deficit in India**  
*Source: Computed from RBI (2009a), and RBI, Database on Indian Economy*

It is very significant to note that both saving and investment increases as a percentage of GDP during liberalisation period. However, both saving and investment showed a dramatic increase especially after 2002-03 periods. Saving rate in the economy was 26.3% of the GDP in 2002-03 and it increased to 37.6% in 2007-08. During the same period investment also witnessed an increase from 25.17% to 39.07%, resulting in a saving investment gap in the economy.

At disaggregate level, situation is far more interesting. Under the sectoral level, the sum of the net saving of household, private corporate and government sector is equal to saving investment gap or net saving in the economy. In India, the net saving of household sector has been increasing in the liberalisation period. Net saving of household was at 8.71% of GDP in 1990-91. Since then, it is increasing and reaches at 11.7% in 2007-08. But the net saving of the government and private corporate sector has been negative in the entire period of liberalisation. However, net saving of private corporate and public sector do not have any clear trend during this period.

Net saving of government sector has always been negative and it was higher at -8.2% of GDP in 1990-91. After that, net saving of government sector has been improved and clear trend can see up to 1998. Due to various reasons<sup>3</sup> government's net saving drastically went down from 1998 onwards till 2003-04 and thereafter it improved. The improvement of government saving from 2003-04 was mainly due to the reduction in the revenue deficit following the enactment of the FRBM act in 2003-04 (Government of India, 2009). From Figure 2.1 it can be seen that worsening net saving of the government sector was not having any impact on the saving-investment gap. Implying that there was not much spillover of government deficit to current account deficit in the liberalisation period. This is mainly due to the fact that government deficit was financed mainly through domestic household saving, which was found to be increasing during the liberalisation period. In this context, it is to be noted that there was a considerable spillover of government deficit (fiscal deficit) to current account deficit in the pre reform period (Singh, 2009).

On the other hand, both saving and investment of private corporate sector has been increasing during the post liberalisation period. Due to high increase in private corporate sector investment relative to its saving, net saving of this sector was always negative in all the years of post liberalisation. Because of acceleration in the Indian economic growth, especially after 2003-04, private corporate sector responded with

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<sup>3</sup> Fifth pay commission award in 1998 worsened the government net saving and which was further worsened by the Kargil War in 1999

high rate of growth in saving and investment with investment growth much higher than that of saving. For instance, saving of the private corporate sector increased from 4.04% of GDP in 2003-04 to 8.8% in 2007-08. However, investment of private corporate sector increased drastically from 6% to 16% in the same period. Consequently, net saving of private corporate sector was reducing from 2003-04 onwards. Worsening the net saving of private corporate sector was one of the main reasons for having saving investment gap in the country in the post 2003-04 period (Government of India, 2009).

For the macroeconomic identity, net saving of all the three sectors must equal to current account balance. For identifying sectoral influence on current account balance, bivariate correlation is estimated between current account balance and net saving of household, private corporate and government sector. The whole liberalisation period is divided into three-sub periods for identifying the influences of each sector in each period.

**Table 2.1: Correlation between Current Account Deficit and Net saving of Three Sectors**

		CAD (1990-08)	CAD (1990-96)	CAD (1996-02)	CAD (2002-08)
Net saving of household sector	Pearson Correlation	.379	.576	.745	-.385
	Sig. (2-tailed)	.121	.232	.089	.451
	N	18	6	6	6
Net saving of Private corporate sector	Pearson Correlation	.412	-.146	.683	.932 (**)
	Sig. (2-tailed)	.089	.783	.135	.007
	N	18	6	6	6
Net saving of public sector	Pearson Correlation	.003	.292	-.713	-.609
	Sig. (2-tailed)	.990	.575	.112	.199
	N	18	6	6	6
Net saving in the economy or Saving investment Gap	Pearson Correlation	.999 (**)	1.000 (**)	1.000 (**)	1.000 (**)
	Sig. (2-tailed)	.000	.000	.000	.000
	N	18	6	6	6

Note: \* indicates correlation is significant at the 0.05 level (2-tailed), \*\*indicates correlation is significant at the 0.01 level (2-tailed).

In the table 2.1 it is clear that, there is a high correlation between Current Account Deficit (CAD) and net saving (or saving investment gap) in the economy. In the entire period (1990-2008), there is no significant correlation found between CAD and net

saving of household, private corporate and Government sector. There is a clear absence of correlation between CAD and net saving of the household and public sector. Net saving of the public sector and household sector may not correlate with CAD. This is because public sector deficit in India is being increasingly financed with high household saving.

**Table 2.2: Industry wise Investment (gross capital formation) in India**

(Absolute values are in Rs Crores, values in the bracket indicate the percentage share of each sector to the total capital formation)

Year	Agriculture Forestry & fishing	Mining & quarrying	Manufacturing	Electricity, gas & water supply	Construction	Trade, hotels & restaurants	Transport, Storage & communications	Financing, insurance, real estate & business services	Community, social & personal services	Total capital formation
1999-00	50151 (10.15)	8635 (1.75)	174097 (35.24)	37267 (7.54)	5504 (1.11)	20652 (4.18)	58021 (11.75)	83934 (16.99)	55734 (11.28)	493999 (100)
2000-01	45480 (9.66)	5810 (1.23)	128988 (27.40)	39571 (8.41)	9097 (1.93)	27921 (5.93)	76297 (16.21)	79976 (16.99)	57676 (12.25)	470793 (100)
2001-02	56979 (11.66)	8384 (1.72)	106207 (21.40)	43889 (8.98)	15846 (3.24)	16437 (3.36)	60348 (12.35)	109135 (22.34)	71401 (14.61)	488626 (100)
2002-03	55668 (10.26)	8393 (1.55)	154652 (28.51)	40499 (7.47)	16947 (3.12)	9679 (1.78)	74215 (13.68)	103662 (19.11)	78646 (14.50)	542361 (100)
2003-04	53542 (8.75)	14185 (2.23)	194206 (31.76)	49563 (8.10)	21324 (3.49)	24916 (4.07)	71098 (11.63)	102148 (16.70)	80582 (13.18)	611564 (100)
2004-05	57849 (7.74)	21832 (2.92)	300336 (40.17)	45415 (6.07)	25577 (3.42)	26127 (3.49)	81387 (10.88)	90465 (12.10)	98759 (13.21)	747749 (100)
2005-06	66065 (7.36)	21956 (2.45)	368492 (41.05)	61815 (6.89)	33217 (3.70)	24817 (2.76)	115288 (12.84)	108041 (12.04)	97906 (10.91)	897598 (100)
2006-07	73285 (7.17)	20681 (2.02)	434076 (42.47)	71186 (6.97)	41667 (4.08)	32507 (3.18)	128611 (12.58)	109250 (10.69)	110761 (10.84)	1022017 (100)
2007-08	79328 (6.72)	25945 (2.20)	492005 (41.65)	73781 (6.25)	48366 (4.09)	34079 (2.88)	166617 (14.10)	126282 (10.69)	134892 (11.42)	1181294 (100)

Source: CSO, National Account statistics (2008), (2009)

However, high positive correlation is found between CAD and net saving of private corporate sector during the last sub period (2002-08) and correlation coefficient is high at 0.932 (See Table 2.1). It may be indicating that current account deficit since 2002-03 is mainly due to the worsening of net saving of private corporate sector. In nutshell, we can say that spill over of public sector deficit (or fiscal deficit) to CAD has declined in the liberalisation period. On the other hand, there has been a

considerable increase in the spillover of private corporate sector deficit to current account deficit, especially in the post 2003-04 periods.

It is obvious that, increase in the rate of investment relative to the saving is the main factor for current account deficit in India for the past few years. Earlier section clearly highlights that increase in private corporate sector investment relative to their saving is the main factor for saving investment gap and there by the reason for the current account deficit. Hence, it is interesting to ascertain the sectors of the economy in which investment has actually taken place. Industry wise investment (gross capital formation) data shows that increase in the investment since 2002-03 was mainly contributed by the manufacturing sector (See Table 2.2).

In the recent period, growth of the manufacturing sector is indeed very high in India averaging at 9% between 2002 and 2008. This sector is found to be the main contributor to industrial growth in India (Indian economic survey, 2006-07, 2007-08). Moreover, its share in the capital formation is also increased compared to other sectors in the economy during this period. For instance in 2001-02, manufacturing sector accounted for only 21.4% of total investment (Gross Capital Formation) in the economy. But thereafter, there was an absolute increase in the investment in the manufacturing sector and it increased from Rs 106207 Crore in 2001-02 to Rs 492005 Crore in 2007-08. Accordingly, its share in the total investment increased considerably from 21.48% to 41.65% during the same period (See Table 2.2). Thus, industry wise investment data highlight that manufacturing sector was responsible for having a high investment in the economy during the post 2003-04 period, implying that the main contributor to the current account deficit is manufacturing sector.

### **2.3 Current Account of BoP: A Decomposition**

Decomposition of current account deficit would help us to identify the structural factors behind current account deficit. We use following method to decompose the current account deficit.



$$\text{CAB} = \text{X} - \text{M} + \text{NY} + \text{NCT}$$

Where, X = Export of goods and services, M = Import of goods and services, NY = Net income from abroad, NCT = Net current transfers

In the decomposition method, the current account deficit is the sum of net export, net income and net transfers. Out of which net export has been continuously showing a negative value and it is found to be the major factor responsible for the current account deficit in the liberalisation period. For instance, net export of the country was only at -2.7% GDP in 1990-91, but it widens to -5.9% in 2008-09. An improvement in the net export occurred in the beginning of last decade, specifically in 2001-02, 2002-03 and 2003-04, and this improvement in the net export resulted in current account surplus in these years (See Table 2.3)

**Table: 2.3 Decomposition of Current Account Deficit (as a % of GDP)**

Years (1)	CAD = (3+4+5) (2)	Net exports (3)	Net income (4)	Net transfers (5)
1990-91	-3.0	-2.7	-1.2	0.8
1991-92	-0.3	-0.5	-1.4	1.6
1992-93	-1.7	-1.9	-1.4	1.6
1993-94	-0.4	-1.3	-1.2	2.0
1994-95	-1.0	-2.6	-1.1	2.6
1995-96	-1.6	-3.3	-0.9	2.5
1996-97	-1.2	-3.6	-0.9	3.3
1997-98	-1.4	-3.5	-0.9	3.0
1998-99	-1.0	-2.6	-0.9	2.5
1999-00	-1.0	-3.1	-0.8	2.8
2000-01	-0.6	-2.3	-1.1	2.9
2001-02	0.7	-1.7	-0.9	3.3
2002-03	1.2	-1.4	-0.7	3.3
2003-04	2.3	-0.6	-0.8	3.7
2004-05	-0.4	-2.6	-0.7	3.0
2005-06	-1.2	-3.5	-0.7	3.1
2006-07	-1.1	-3.6	-0.8	3.3
2007-08	-1.5	-4.6	-0.4	3.6
2008-09	-2.5	-5.9	-0.4	3.8

*Source: Computed from RBI, Database on Indian Economy*

The net transfer is another main component in the current account and it is mainly responsible for the lower current account deficit during the liberalisation period. The net current transfer was at 0.8% of GDP in 1990-91. Since then, it is gradually

increasing and in 2008-09 it is reached 3.8% of GDP. Under the net transfers, private transfers are the main contributor to total increase in the net transfers in the country.

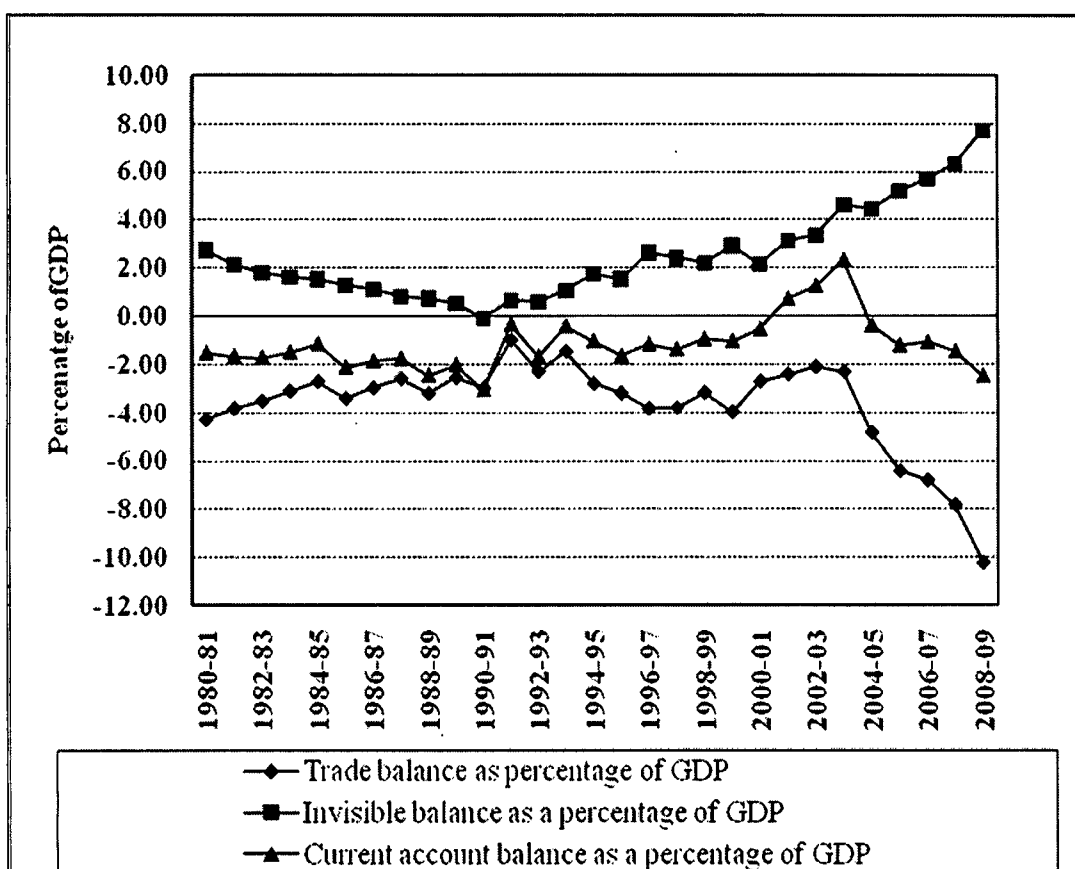
Net income was always been a negative value in liberalisation period, however the influence of net income on current account deficit has been continuously declining since 1990-91. Net income was  $-1.2\%$  GDP in 1990-91 and it has been gradually declining in the post liberalisation period and reached at  $-0.4\%$  of GDP in 2008-09. Net income is largely comprised of income payment and receipts on capital as well as compensation of employees. Given the relatively small level of compensation of employees, net improvement of investment income is the main factor for improvement in the income account.

#### **2.4 Current Account of Balance of Payments: An Account wise Disaggregation**

Decomposition of current account deficit identified the macro factors causing current account deficit. An account wise disaggregation would shed light on the micro factors leading to current account deficit. Account wise, current account consists of two accounts, namely Trade and Invisibles.

##### **2.4.1 Trade and Invisible Account**

Figure 2.2 plots the trends in the trade and invisibles balance. It is clear that Trade deficit is the prime factor for current account deficit in India and it is found to be increasing in the liberalisation period. However, current account deficit was lower throughout the liberalisation period mainly due to the surplus in the invisible account.



**Figure: 2.2 Trade and Invisibles balance**

Source: Computed from RBI, *Data Base on Indian Economy*

Trade deficit financed with invisibles' surplus was increasing in the liberalisation period (See Table 2.4).

**Table: 2.4 Percentage of Trade deficit financed by Invisibles**

Years	Trade deficit (Rs Crore)	Invisibles balance (Rs Crore)	Percentage of Trade deficit financed by invisibles
1985-86	-9586	3630.2	37.86
1986-87	-9353.9	3523.9	37.67
1987-88	-9296.1	3003.5	32.30
1988-89	-13555.6	3145.6	23.20
1989-90	-12413.4	2583.2	20.80
1990-91	-16933	-433	2.55
2000-01	-56737	45139	79.55
2001-02	-54955	71381	129.88
2002-03	-51697	82357	159.30
2003-04	-63386	127369	200.94
2004-05	-151765	139591	91.97
2005-06	-229664	185927	80.95
2006-07	-279962	235579	84.14
2007-08	-368532	299618	81.30
2008-09	-542113	409842	75.60

Source: Computed from RBI, *Database on Indian Economy*

Trade deficit financed with invisibles' surplus was lower in the in pre liberalisation period compared to the post liberalisation period. For example from 1985 to 1990, on an average, invisibles surplus financed around 30% of merchandise deficit. During the period between 2004-05 and 2008-09, though invisibles was very high, it could finance on average 80% of trade deficit (See Table 2.4).

## **2.4.2 Merchandise account or trade account**

Trade balance is defined as the difference between the Merchandise export (X) and merchandise import (M). In India, merchandise trade is compiled by two agencies, Reserve Bank of India (RBI) and Directorate General of Commercial Intelligence and Statistics (DGCI&S), Kolkata. For analysing the merchandise trade, we use the DGCI&S data, because RBI doesn't provide disaggregate data on each components or transactions. In the recent period, it has been observed that oil, gold and silver import seems to be the major factors responsible for having high trade deficit. In the following paragraphs, we examine the components of the trade account for getting further insights into the trade deficit.

### **2.4.2.1 Trade account and Import of Gold and Oil**

In this section we decompose the trade deficit into three components, namely oil balance, non-oil balance (excluding gold and silver) and gold and silver balance. This decomposition as given in table 2.5 shows that oil trade balance is the prime factor behind trade deficit. In 1994-95, deficit in the oil trade account was only  $-1.70\%$  of GDP and it increased to  $-5.57\%$  2008-09 (See Table 2.5). Because of increased refining capacity, petroleum product export from India significantly improved from 2000-01 onwards and finally it reached 15% of total merchandise export in 2007-08 (See Annexure 2.1). Petroleum export has been showing large increase during the last decade. However, increase in the export of petroleum products did not improve the oil trade balance because of increased import of oil. Import bill of oil increased primarily because of two reasons, increase in the volume of import and increase in the price of the crude oil with price effect was found to be more dominant. It can also be seen from the fact that an increase in the international price of crude oil was always associated with increase in the oil import bill of India (See Annexure 2.4). Though

crude oil is a necessary item in our import basket, there is no mechanism, such as hedging or advance buying, in place to avoid the impact of sudden increase in the international price of crude oil. As the public sector companies account for the majority of oil imports in India, it is not difficult to reduce the impact of world oil price increase by organizing the oil import<sup>4</sup> (See Annexure 2.4).

**Table 2.5: Decomposition of Trade Account Deficit (As percentage of GDP)**

Year	Decomposition of Trade Account Deficit				Gold and Silver and Current Account Deficit	
	Oil balance (1)	Non oil trade balance excluding Gold and silver (2)	Gold and silver (3)	Trade deficit (4)=(1+2+3)	Current account balance (5)	Current account balance excluding Gold (6)
1994-95	-1.7	1.21	-0.22	-0.72	-1.04	-0.82
1995-96	-1.98	0.86	-0.24	-1.37	-1.65	-1.41
1996-97	-2.46	1.26	-0.26	-1.46	-1.18	-0.93
1997-98	-1.9	1.10	-0.77	-1.58	-1.37	-0.60
1998-99	-1.52	0.53	-1.22	-2.2	-0.96	0.26
1999-00	-2.79	0.98	-1.04	-2.85	-1.04	0.00
2000-01	-2.99	2.70	-1.01	-1.30	-0.55	0.46
2001-02	-2.49	1.86	-0.96	-1.59	0.72	1.68
2002-03	-2.97	2.10	-0.85	-1.71	1.25	2.09
2003-04	-2.84	1.59	-1.14	-2.39	2.32	3.47
2004-05	-3.26	0.86	-1.59	-3.99	-0.39	1.20
2005-06	-3.99	-0.30	-1.40	-5.69	-1.22	0.18
2006-07	-4.22	-0.69	-1.60	-6.51	-1.07	0.53
2007-08	-4.37	-1.65	-1.52	-7.55	-1.46	0.06
2008-09	-5.57	-2.84	-1.61	-10.00	-2.49	-0.87

Source: Computed from RBI (2009a), RBI, *Database on Indian Economy*

Note: DGCI&S data is used for decomposition of Trade deficit

Apart from oil, gold and silver imports are other major items responsible for the higher trade deficit since 1993-94<sup>5</sup>. Trade deficit in the gold and silver account was only -0.22% of GDP in 1994-95 and it increased to -1.61% of GDP in 2008-09 (See Table 2.5). It is to be noted that gold and silver not only having any contribution to the production in the economy, but their import also reducing the foreign exchange availability for importing other items such as raw materials and capital equipment. One point to note is that had there been no silver and gold imports, trade deficit would

<sup>4</sup> Rationalising import means importing more when the international price of oil is very low and *vice versa*

<sup>5</sup> In India, the item Non-Monetary Gold Movement has been deleted from invisibles in conformity with IMF Manual on BoP (5th edition) from May 1993 onwards; and these entries have been included under merchandise imports.

have been significantly lower in India, resulting in lower current account deficit. For instance, in the absence of gold and silver import, the current account deficit would have been 0.87% of GDP in 2008-09, a year of global economic crisis, instead of the actual deficit of 2.49%.

#### **2.4.2.1 Evidence of Defense import to India and Trade account**

Defense equipments import considered as one of the indispensable item of import in India due to the security and strategic reason. Defense import in fact a major item in our import basket and does not have much linkages with the rest of the economy. According to defense minister A. K. Antony, India meets 70% defense needs in the country through import<sup>6</sup>. India has 39 ordnance factories and eight public sector undertakings (PSU), employing over 300000 workers for producing the defense equipment. Yet we mostly depend imports for defense equipment (Nair, 2009). As a result of heavy arms import, India became the second largest arms importer in the world between 2004 and 2008 (SIPRI, 2009). Though there is clear evidence of huge defense import, due to the nature of secrecy, the amount of defense import to India is not available.

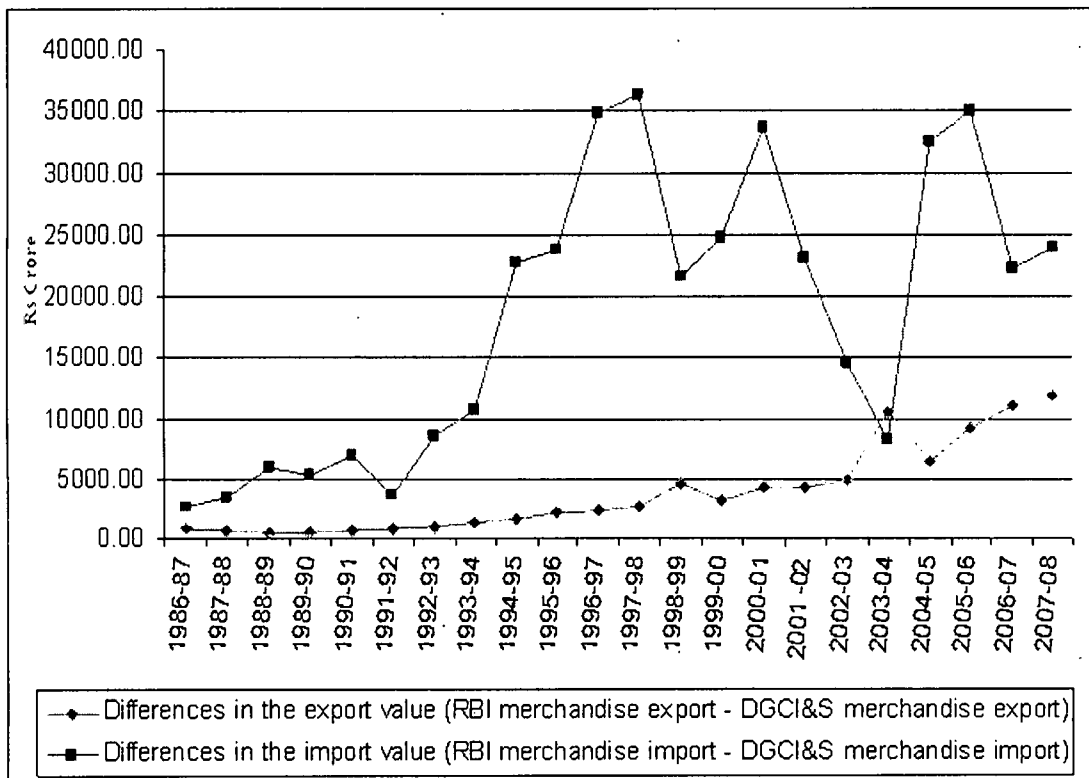
During early 1990's, India had a considerable share of defense import from Russia and we had a bilateral commercial agreement with them. For defense import from Russia, India had obliged to exchange goods and service at rate prescribed in the agreement and entire amounts of defense import were added to the external debt. Divergence in merchandise import data between DGCI&S and RBI or high Non DGCI&S merchandise import is the one of the clear evidence for defense import to India<sup>7</sup>. During the post liberalisation period, merchandise import reported by RBI has been found significantly higher than import reported by DGCI&S. When it comes to export, the divergence between exports reported by RBI and DGCI&S is lower. The excess of import reported by RBI over DGCI&S is attributed to defense import. Therefore increase difference in the import figures reported by the two agencies

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<sup>6</sup> Available at <http://www.thehindubusinessline.com/2009/02/19/stories/2009021950410800.htm> accessed on 10/12/2009

<sup>7</sup> High level balance of payment committee identified non DGCIS import as the main evidence for defense import to India and committee also identified other reasons for divergences such as difference in the valuation method and leads and lags in psychical import etc

indicates increasing defense import. Due to the nature of import, there is no clearance for defense import equipment. Hence, it would not enter into the DGCI&S merchandise import data, while RBI covers the same when the imports are paid for. Though there exist other reasons for divergence between the two data, such as divergence in the valuation method of foreign currencies between two agencies, leads and lags in physical import and payments. However, RBI import figure always stand higher than DGCI&S import and divergence is found only between import figures and there is no much divergence in case of export value which in turn strengthen the argument of high defense import in India. We could also expect that each oscillation in the import value divergence between RBI and DGCI&S (See Figure 2.3), might be representing the modernisation taking place in the armed forces of India through imports.



**Figure: 2.3 Divergence between import and export value, RBI versus DGCI&S (values are in Rs crores)**

Source: Computed from RBI (2009a), RBI, *Database on Indian Economy*

Data provided by Stockholm International Research Institute (SIPRI) also support the evidence of large amount of arms import to India during the liberalisation period. Compared to the previous decade, there was an absolute increase in the arms imports

from 2000 onwards. Modernisation in defense sector after Kargil War (Nair, 2009) could be one of the reasons for high amount of arms import in the post 2000 period. For instance, arms import to India was only at 1021 US million in 2000, but it increased to 2862 US million in 2003 (See Table 2.6). Due to the high amount of arms import, India became a second largest arms importer in the world between 2004 and 2008 (SIPRI, 2009).

**Table: 2.6 Arms Import to India**  
(Values are in US millions at 1991 base year price)

Year	Arm Imports in India
1980	1907
1990	2770
1991	1997
2001	1021
2002	1680
2003	2862
2004	2305
2005	1175
2006	1414
2007	1445
2008	1847

*Source: Database on arms transfers between nations, Stockholm international research institute (SIPRI)*

### 2.4.2.3 Growth of Merchandise Export and Import in India

It is obvious that, in all the years amount of merchandise import is always higher than merchandise export. Quantity and value growth are two factors responsible for the increase in the amount of merchandise export and import. High amount of merchandise import could happen three ways; firstly, increase in quantity of imports, secondly, increase in the value of import and finally the combined effect of the two factors.

**Table: 2.7 Unit value and Quantum growth in Export and Import**

Year	Unit Value Index		Quantum Index	
	Exports (%)	Imports (%)	Exports (%)	Imports (%)
1990-1996	4.2	3.2	2.6	3.3
1996-2002	5.9	4.4	4.7	6.4
2002-2008	7.7	5.9	9.6	15.3

*Source: Computed from RBI, (2009a)*



For analysing the volume and value growth of merchandise export and import, whole liberalisation period is divided into three phases. It is clear from the table that, in all the phases the volume of export and import increases at a faster rate compared to the value. For instance, volume of export increased from 2.6% in 1990-1996 to 9.6% in 2002-08 (See Table 2.7). At the same time, the value of export increased only from 4.2% to 7.7%. On the other hand, quantity of import increased from 3.3% in 1990-96 to 15.3% in 2002-08, but the value of import increased only from 3.2% to 5.9% during the same period. There is a substantial increase in the quantity of import in the last phase, for e.g. the quantity of import increased from 6.4% during 1996-02 to 15.3% during 2002-08, however the value of import increased only from 4.4% to 5.9%. Different from the first two phases, the last phase witnessed an important change, in this phase both quantity and value of export increased. For e.g. in between 1996-2002 and 2002-08, quantity of export grow from 4.7% to 9.6%. At the same time, value of export also witnessed an increase from 5.9% to 7.7%. To sum up, we can say two things; high amount merchandise import during the liberalisation period was mainly a quantity increase. But in the case of merchandise export, along with increase in the quantity, value of export also experienced a significant increase.

#### **2.4.2.4 Structural Shift in the Export and Import of Principle Commodities**

Since liberalisation, there has been a shift in the share of principle commodities both in export and import. Traditional items such as Agriculture and allied products, textiles and textile product had a significant share in export in 1990-91 and their share suffered a decline during the liberalisation period. For instance, textile and textile products accounted for 25% of total export in 2000-01, its share declined to 12% by 2007-08 (See Annexure 2.I). After 2000, there has been a gradual increase in the share of export of two principal commodities namely, engineering goods and petroleum products. For instance the share of engineering goods in total export grew from 15% in 2000-01 to 23% in 2007-08, registering a compound annual growth rate of 15%. The main contributor for this growth of engineering goods come from (HS code 84) nuclear reactor, boilers, machinery and mechanical appliances, parts there of etc. Another major breakthrough is happened for petroleum product export. Petroleum export had only the share of 0.1% in 1999-00, but thereafter its share has been increasing and currently (2007-08) it has a share of 15.6% in the total export.

Petroleum crude oil import is considered to be the main import item in our import baskets and its share of imports is widely fluctuating depending upon the international price of crude oil. In 1996-97 petroleum imports has the share of imports at 25.6%, but in 1998-99 it share has reduced to 15.1% and finally it increased to 33.2% in 2007-08 (See Annexure 2.2) Since 2000-01, there has been an increase in the import of capital goods under the different section such as transport equipment, electronics, and machinery etc, showing growing service needs of our economy. Gold and silver also significantly improved its share of import during the same period. Combined share of import of gold and silver was only at 2.5% of import in 1994-95, and it increased to 7.4% in 2007-08 (See Annexure 2.2).

### **2.4.3 Invisible Account**

In the earlier section we have seen that continued and growing invisible surplus enabled the country to offset high trade deficit on current account and therefore it minimised the amount needed for BoP financing or reduce the amount need for external financing in India. For understanding the source of invisible surplus, first we analyses the three main accounts under invisible: namely services, Transfers and income and then we extend our analysis into minor heads under the main three heads.

**Table 2.8: Major Components of Invisible Account (as a percentage of GDP)**

Year	Invisible Receipts				Invisible Payment				Invisible Net			
	Services	Transfers	Income	Total	Services	Transfers	Income	Total	Services	Transfer	Income	Total
1990-91	1.4	0.8	0.1	2.3	1.1	0	1.3	2.4	0.3	0.8	-1.2	-0.1
1995-96	2.1	2.5	0.4	5.0	2.1	0	1.3	3.4	0.0	2.5	-0.9	1.6
1999-00	3.5	2.8	0.4	6.7	2.6	0	1.2	3.8	0.9	2.8	-0.8	2.9
2000-01	3.5	2.9	0.6	7.0	3.2	0	1.7	4.9	0.3	2.9	-1.1	2.1
2001-02	3.6	3.4	0.7	7.7	2.9	0.1	1.6	4.6	0.7	3.3	-0.9	3.1
2002-03	4.1	3.5	0.7	8.3	3.4	0.2	1.4	5.0	0.7	3.3	-0.7	3.3
2003-04	4.5	3.8	0.6	8.9	2.8	0.1	1.4	4.3	1.7	3.7	-0.8	4.6
2004-05	6.2	3.1	0.7	10	4.0	0.1	1.5	5.6	2.2	3.0	-0.8	4.4
2005-06	7.1	3.2	0.8	11.1	4.3	0.1	1.5	5.9	2.8	3.1	-0.7	5.2
2006-07	8.3	3.2	1.0	12.5	4.8	0.2	1.7	6.7	3.5	3.0	-0.7	5.8
2007-08	8.0	4.1	1.3	13.4	4.9	0.2	1.7	6.8	3.5	3.9	-0.4	6.9
2008-09	9.4	4.4	1.3	15.1	4.8	0.3	1.8	6.9	4.6	4.1	-0.4	8.3

Source: Computed from RBI, *Database on Indian Economy*

Under the invisible account, service and transfer are the main contributors. Unlike transfers, service payments too significantly increasing along with service receipts. With the increase in service payments, service net increases only from 0.3% of GDP in 1990-91 to 4.6% in 2008-09 (See Table 2.8). Increase in the service payments are mainly related to hiring business service, technology payment etc. High service payment may be representing the technological transformation happening in the domestic economy (RBI, 2008a).

#### 2.4.3.1 Compositional Shift in the Earnings of Service Exports

In the recent years, India has emerged as an important service exporter and occupies 11<sup>th</sup> position among the service exporting nations (RBI, 2008a). Service exports is a major contributor to the invisibles. An important feature of service export has been the structural shift, driven by the emergence of new type of services. Since liberalisation, share of Transport and travel has been decreasing. In which transport has the share of 21% in the total service receipt in 1990-91 after that it is declining and in 2008-09 it has only 10% share. In travel too, the share of receipt is reduced from 32% to 10% during the same periods. The number of tourist arrival is the main factor determines the travel receipts and it has not witnessed much increase in the last two decades. The factors like economic and social development in India, abroad, infrastructural facilities cost condition absorption capacity of tourism industry etc could be the reasons for stagnating the number of tourist arrival in India. However,

there has been some increase in the number of tourist arrival since 2003-04 onwards and leading to an increase in the travel receipts. Importance of miscellaneous section under the services head has been increasing since liberalisation. For instance, the combined share of software miscellaneous and non software miscellaneous has only 43.6% in the total service receipt in 1990-91. Since then it has been significantly improving and in 2008-09 it reached 76.4% share in the service head.

Interestingly, in net terms, software miscellaneous is the major contributor to the service head. On the other hand, there has been a large increase in receipts under non-software miscellaneous, but payments under non software miscellaneous also showed a large increase than the receipts. Due to the high payment, net non software miscellaneous has been turned negative since 1998-99 and it was found positive only in two years<sup>8</sup>. In the case of travel, net earnings turned positive from 2003-04 onwards, whereas transport has been a negative contributor to the service heads in the entire post liberalisation period (See Table 2.9).

**Table: 2.9 Composition of India's services exports (Net) (Values in millions of US \$)**

Years	Travel	Transportation	Insurance	G.n.i.e.	Miscellaneous		Miscellaneous Total
					Software miscellaneous	Non – software Miscellaneous	
1990-91	1064	-110	23	-158			161
1991-92	1512	-349	-18	-103			165
1992-93	1713	-503	12	-25			-68
1993-94	1725	-332	-72	-123			-664
1994-95	1547	-167	-29	-155			-594
1995-96	1544	-158	36	-205			-1417
1996-97	2020	-441	64	-106			-811
1997-98	1477	-686	57	116			355
1998-99	1250	-755	112	272			1286
1999-00	897	-703	109	312			3449
2000-01	693	-1512	47	332	5750	-3618	2132
2001-02	123	-1306	8	235	6884	-2620	4264
2002-03	-29	-736	19	65	8863	-4539	4324
2003-04	1435	879	56	28	12324	-4578	7746
2004-05	1417	144	148	-10	16900	-3173	13727
2005-06	1215	-2012	-54	-215	22262	1974	24236
2006-07	2439	-94	553	-150	29033	-2312	26721
2007-08	2095	-1500	595	-46	37242	-821	36421
2008-09	1462	-1711	278	-402	44186	6005	50191

Source: Computed from RBI, *Database on Indian Economy*

<sup>8</sup> Non software miscellaneous (net) turned positive in 2005-06 and 2008-09

#### **2.4.3.2 Miscellaneous items in the service head**

The importance of miscellaneous item under service head and its contribution has been increasing during the last two decades. However, in the total miscellaneous item software is the major contributor to service head. The increased contribution of software export helped the country to have invisible surplus. For e.g. the share of net receipts from software export to total invisible balance was at 15% in 1997-98 and this share has increased to 49.3% in 2008-09. *“In case of software’s exports, India remains an attractive source due to its low cost of operations high quality of product and services and readily available skilled manpower. Furthermore a favorable time zone difference with North America and Europe helps Indian companies achieve round the clock international operations and customer services. To with stand global competition Indian companies have started moving up the value chain by exploring untapped potential in IT consulting and system integration hardware support and installation and processing services”*<sup>9</sup>. India’s specialisation in software has been driven by two sorts of wage advantages that have reinforced each other: lower wages for software developers relative to those of their US and European counterparts makes Indian software cheaper in global markets, while the higher wages earned by these professionals relative to other industrial sectors in India have ensured a steady supply of workers. Thus in the case of software we have not only absolute advantage over other countries but also the comparative advantages over other sectors (Arora and Athreye, 2001). This enabled the country to reach the first position in the export of computer and information services (RBI, 2008a). All these factors not only enabled the strong service export from India and but also made a stronger BoP position through its contributions in the invisible account.

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<sup>9</sup> RBI report on Invisible, Feb 2008 , pp 268-269 (Feb 2008 monthly bulletin)

**Table 2.10: Non Software Miscellaneous (Net) (Values are in billions of US \$)**

Non Software Miscellaneous	2005-06	2006-07	2007-08	2008-09
Communication	1.31	1.5	1.5	1.2
Construction	-0.52	0	0	0
Financial	0.24	0.1	0.1	0.9
News Agency	0.06	0.1	0.2	0.4
Royalties, copy rights & license fees	-0.4	-0.9	-0.9	-1.7
Business services	1.6	-1.4	0.1	1
Personal, cultural, recreational	0.1	0.1	0.4	0.4
Others	-0.4	-1.9	-2.1	3.7
Total	1.97	-2.4	-0.7	5.9

Source: Compiled from RBI 2007, 2008b, 2009b)

Non-software Miscellaneous consist of communication services, construction, services, financial, news agencies, royalties and copy right and license fees, business services, personal and cultural and recreational services component etc. Before 2000-01, there was no separate head is available even for aggregate non-software miscellaneous. Since then, it is clearly separated from the software export and showing new dynamism in BoP. Separate head for non software miscellaneous was showing from 2000-01 onwards. Non software miscellaneous have been showing a negative figure almost all the years since 2000 ( See Table 2.9). At a disaggregate level, all the items in non software miscellaneous are not negative contributors. For instance item such as others, royalties and copy right & license fees are the main reason for the negative balance of non software during 2005 and 2009 (See Table 2.10). In which business service is the single largest item dominated both in the receipts and payment of non-software miscellaneous and however, it is a negligible positive contributor during 2005-06 to 2008-09.

#### 2.4.3.3 Transfers

According to IMF's BoP Manual 5<sup>th</sup> edition, (1993), 'transfers' represent one sided transaction, i.e., transaction that do not have *quid-pro-quo*. In the decomposition of current account (Section 2.3), clearly highlighted the net current transfer is the main reason for having lower current account deficit in India.

**Table 2.11: Selected Indicators of Private Transfers in India**

Year	Private Transfers (Us billion)	Private Transfers % of GDP	CAD % of GDP	CAD excluding Private Transfers % of GDP	Share in Current Receipts (percent)
1990-91	2.08	0.65	-3.05	-3.70	8.03
1991-92	3.80	1.43	-0.34	-1.77	13.68
1992-93	3.86	1.49	-1.70	-3.19	13.70
1993-94	5.29	1.91	-0.42	-2.33	15.55
1994-95	8.11	2.50	-1.04	-3.54	19.13
1995-96	8.54	2.40	-1.65	-4.05	17.09
1996-97	12.44	3.19	-1.18	-4.37	22.39
1997-98	11.88	2.87	-1.37	-4.23	20.15
1998-99	10.34	2.47	-0.96	-3.43	17.22
1999-00	12.29	2.72	-1.04	-3.76	18.11
2000-01	13.07	2.80	-0.55	-3.35	16.81
2001-02	15.76	3.22	0.72	-2.50	19.35
2002-03	17.19	3.23	1.25	-1.98	17.96
2003-04	22.18	3.60	2.32	-1.28	18.52
2004-05	21.08	2.92	-0.39	-3.31	13.62
2005-06	24.95	3.03	-1.22	-4.25	12.81
2006-07	30.84	3.26	-1.07	-4.33	12.67
2007-08	43.51	3.55	-1.46	-5.01	13.82
2008-09	46.38	3.78	-2.49	-6.26	13.73

Source: Computed from RBI, *Database on Indian Economy*

Transfers account consist of both private and government transfers, in which private transfer is dominating. Private transfers was only at \$ 2.08 billion in 1990-91 and it increased to \$ 46.38 billion in 2008-09. The second wave of migration started in the early 1990's to information technology sectors in developed countries like America, Australia, Canada could be the reason for having high private transfers to India during the liberalisation period. Along with that, flexible exchange rate, gradual opening of capital account, liberalised import policy of Gold, increase in the amount local withdrawal from NRI deposit after 1999-2000 can be the other facilitating factors, helped to increase the private transfers to India.

Along with the software export, private transfer is one of the foremost contributors for the minimisation of current account deficit in India. Current account deficit would have been higher in the last decade, provided if there was no private transfer to India. For e.g. in 2008-09 current account deficit would be at 6.26 % of GDP if we exclude private transfers from it (See Table 2.11). Because of huge private transfers; India is on the top among the nations receiving remittance in the world (RBI, 2008a)

#### 2.4.3.4 Investment Income

**Table 2.12: Investment Income Account**

Year (1)	Receipts (\$ million) (2)	Payments (\$ million) (3)	Net (\$ million) (2-3) (4)	Receipts to payment ratio (5)
1990-91	368	4120	-3752	0.09
1992-93	376	3799	-3423	0.10
1993-94	395	3665	-3270	0.11
1994-95	886	4317	-3431	0.21
1995-96	1430	4634	-3205	0.31
1996-97	1073	4380	-3307	0.25
1997-98	1561	5020	-3459	0.31
1998-99	1893	5462	-3569	0.35
1999-00	1783	5478	-3695	0.33
2000-01	2554	7218	-4664	0.35
2001-02	3254	7098	-3844	0.46
2002-03	3405	6949	-3544	0.49
2003-04	3774	7531	-3757	0.50
2004-05	4124	8219	-4095	0.50
2005-06	6229	11491	-5262	0.54
2006-07	8926	15688	-6762	0.57
2007-08	13808	18089	-4281	0.76
2008-09	13482	17499	-4017	0.77

*Source: Computed from RBI, Database on Indian Economy*

Decomposition of current account deficit in the earlier section (See Section 2.3) clearly highlights the decline in the influence of income account on current account deficit. Improvement in the income account is mainly due to the improvement in the investment income account, which is functioned as a connecting factor between current and capital account. Improvement in the investment income account can be measured by ratio of investment income receipt to payment and the ratio was only at 0.089 in 1990-91 and it increased to 0.77 in 2008-09 (See Table 2.12). Improvement in the ratio indicates that investment income payments are now increasingly paid with investment income receipts.



**Table 2.13: Main Components of Investment Income Account**  
(Values are in millions of US \$)

Years	2005-06	2006-07	2007-08	2008-09
<b>Receipts of which:</b>	<b>6,229</b>	<b>8,926</b>	<b>13,808</b>	<b>13,482</b>
1. Reinvested Earnings on Indian Investment Abroad	1,092	1,076	1,084	1,084
2. Interest/discount, Earnings on Foreign exchange reserves	4,519	6,641	10,124	10,480
<b>Payments of which:</b>	<b>11,491</b>	<b>15,688</b>	<b>18,089</b>	<b>17,499</b>
1. Interest Payment on NRI deposits	1,497	1,969	1,813	1,547
2. Interest Payment on ECBs	3,148	1,709	2,655	2,702
3. Interest Payments on External Assistance	825	982	1,143	1,010
4. Dividends and Profits	2,502	3,486	3,576	3,168
5. Reinvested Earnings of FDI companies in India	2,760	5,828	7,168	6,426
<b>Net Investment income</b>	<b>-5,262</b>	<b>-6,762</b>	<b>-4,281</b>	<b>-4,017</b>

*Source: Compiled from RBI Monthly bulletin (various issues)*

There could be two factors for improving investment income account. Firstly, investment income payment is not witnessing much increase mainly due to the fall in the amount of interest payment on foreign debt<sup>10</sup>. Secondly, shift in the financing of BoP from debt to non-debt flows in the liberalisation period enabled the country to maintain low foreign debt and thereby a reduction happened in the servicing of debt flows in the form of interest and principal. On the contrary, effect of financing BoP with foreign investment not found to be much impact on investment income account. This is because dividend and profit, reinvested earnings of FDI not showing much increase. Nevertheless, investment income receipt increased mainly due to the earning from our huge foreign exchange reserve in the form of high interest and discount earnings. But the contribution to investment income receipt from overseas investment (OFDI) through dividend and profit was found to be low. But in the last few years these contributions are increasing but still it is negligible amount in investment income receipt.

## 2.5 Conclusion

Minimization of current account deficit is a prerequisite for the efficient BoP financing. Even though current account deficit is minimised, analysis shows that

<sup>10</sup> Since 1990-91, interest rate on debt has been declining (Chapter four provide more details)

current account deficit would have squeezed further if we had taken care of some aspects in the current account in the liberalisation period. Detailed examination of saving investment provided a clear macro understanding of current account deficit. It highlights the fact that, unlike the past, the spillover of public sector deficit to current account deficit has significantly reduced in the post liberalisation period. Therefore current account deficit in the post liberalisation period increasingly contributed by private sector in the economy and expect that it would not create much problem in future<sup>11</sup>. A detailed analysis of saving investment in the country shows that from 2003-04 onwards saving investment gap, the source of current account deficit, in the economy is increasingly contributed by private corporate sector. In the case of private corporate sector, both the saving and investment show a dramatic increase in the post 2003-04 period, however the rate of increase in investment is high relative to saving. Interestingly it is therefore important to understand the sector wise contribution to investment. Industry wise disaggregated data highlighted that, in the recent period (post 2003-04 onwards) manufacturing sector is the main contributor to the total investment (Gross Capital Formation) in the economy, hence this industry/sector was the main source for having high investment and there could be the reason for saving investment gap and current account deficit in the economy.

An account wise disaggregation highlighted the fact that minimisation of current account deficit under the post liberalisation period happened not because of the reducing trade deficit. Rather trade deficit is increased and minimisation of current account deficit is mainly due to increase in the amount of invisible balance. In other words, trade deficit being financed with invisibles keeps on increasing in liberalisation period. Buoyant software exports along with the huge private transfers were the major contributor to invisible balance and it helped to minimise the current account deficit and in turn reduced amount needed for financing BoP. In the trade account there was a structural shift happened in the export and import basket under the principal commodities section. Both the growth of export and import have elevated in the liberalisation period, but high import relative to export was the main factor for trade deficit in India. In which export and import marked a real increase, i.e.

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<sup>11</sup> The Pitchford Thesis states that a current account deficit does not matter if it is driven by the private sector. This theory has held true for the Australian economy, which has had a persistent current account deficit, yet has experienced economic growth for the past 18 years (1991-2009).

volume is increasing very high relative to value increase. Increase in the amount of Petroleum Oil Lubricant (POL) import was the main reason for increasing merchandise import and thereby the reason for trade deficit. Apparently, special imports such as gold and silver, defense are other main reasons for increase in the merchandise import in India. Increase in the non DGCI&S import (RBI import minus DGCI&S import) considered as a main supportive evidence for defense import to India and Non DGCI&S import found to be higher in post liberalisation period (See Figure 2.3). As a result of heavy defense import, India became the second largest arms importer in the world between 2004 and 2008 (SIPRI, 2009). In the case of Gold and silver import, for instance, if we leave out these import from trade balance, would not only reduce trade deficit, moreover it would also make current account surplus between 1998-99 and 2007-08 period (See Table 2.5). Therefore we could argue that India is unreasonably making deficit in the current account by allowing massive gold and silver import to India. Even in the year of Global economic crisis, gold and silver import was enormous. Due to the high current account deficit and low capital account surplus, 75% BoP financing (current account deficit) forced to meet from foreign exchange reserves. If there was no gold and silver import, current account deficit would have reduced from 2.49% GDP to 0.87% in 2008-09 and consequently it would have reduce the problem of financing BoP because in the same year we had received the net capital flows worth 0.60% of GDP. Income account is one of the main components of current account and it is functioned as a connecting factor between current and capital account. Unlike the past, influence of income account on current account deficit has declined in the post liberalisation period. Given the compensation of employees, shift in the BoP financing to non debt flows and the earnings from foreign exchange reserve are the main factors for improving income account.

### Annexure 2.1

#### Export of principle commodities

(Values are in millions of US \$, values in the brackets indicate the percentage share of each commodity to the total export)

Years	Agriculture & allied products	Ores & minerals	Leather & manufactures	Chemicals & related products	Engineering goods	Textile & textile products	Gems & Jewellery	Petroleum products
1990-91	3354 (19)	970 (5)	1449 (8)	1728 (10)	2250 (12)	4343 (24)	2924 (16)	523 (3)
1991-92	3203 (18)	930 (5)	1269 (7)	1869 (11)	2253 (13)	4693 (26)	2738 (15)	415 (2)
1992-93	3136 (17)	738 (4)	1278 (7)	1786 (10)	2481 (13)	5007 (27)	3072 (17)	476 (3)
1993-94	4028 (18)	888 (4)	1300 (6)	2377 (11)	3038 (14)	5472 (25)	3996 (18)	398 (2)
1994-95	4226 (16)	988 (4)	1611 (6)	3067 (12)	3508 (13)	7118 (27)	4500 (17)	417 (2)
1995-96	6082 (19)	1175 (4)	1752 (6)	3597 (11)	4391 (14)	8032 (25)	5275 (17)	454 (1)
1996-97	6863 (21)	1172 (4)	1606 (5)	3913 (12)	4963 (15)	8636 (26)	4753 (14)	482 (1)
1997-98	6626 (19)	1061 (3)	1657 (5)	4396 (13)	5336 (15)	9050 (26)	5346 (15)	353 (1)
1998-99	6035 (18)	893 (3)	1661 (5)	4009 (12)	4464 (13)	8866 (27)	5929 (18)	89 (0)
1999-00	5608 (15)	916 (3)	1590 (4)	4707 (13)	5152 (14)	9822 (27)	7502 (20)	39 (0)
2000-01	5973 (13)	1153 (3)	1944 (4)	5886 (13)	6819 (15)	11285 (25)	7384 (17)	1870 (4)
2001-02	5901 (14)	1262 (3)	1910 (4)	6052 (14)	6958 (16)	10207 (23)	7306 (17)	2119 (5)
2002-03	6710 (13)	1996 (4)	1848 (4)	7455 (14)	9033 (17)	11617 (22)	9030 (17)	2577 (5)
2003-04	7533 (12)	2369 (4)	2163 (3)	9446 (15)	12405 (19)	12792 (20)	10573 (17)	3568 (6)
2004-05	8475 (10)	5079 (6)	2422 (3)	12444 (15)	17348 (21)	13555 (16)	13762 (17)	6989 (8)
2005-06	10214 (10)	6164 (6)	2698 (3)	14770 (14)	21719 (21)	16402 (16)	15529 (15)	11640(11)
2006-07	12684 (10)	7003 (6)	3017 (2)	17336 (14)	29567 (23)	17373 (14)	15977 (13)	18679(15)
2007-08	18060 (11)	9005 (6)	3432 (2)	20454 (13)	36722 (23)	19015 (12)	19657 (12)	24869(16)

Source: Computed from RBI (2009a)

### Annexure 2.2: Import of principle commodities

(Values are in millions of US \$, values in the brackets indicate the percentage share of each commodities to the total Import)

Years	Petroleum, crude, products	Metalliferrous ores, metal scrap, etc	Iron & steel	Machinery except electrical	Electronic goods	Transport equipment	Pearls, precious and semi precious stones	Organic & inorganic chemicals	Gold & silver
1990-91	6028 (25)	852 (4)	1178 (5)	2100 (9)	.	931 (4)	2083 (9)	1276 (5)	
1991-92	5325 (27)	477 (3)	799 (4)	1458 (8)	.	371 (2)	1957 (10)	1379 (7)	
1992-93	6100 (28)	664 (3)	779 (4)	1653 (8)	.	462 (2)	2442 (11)	1428 (7)	
1993-94	5754 (25)	442 (2)	795 (3)	1882 (8)	912 (3)	1270 (6)	2635 (11)	1371 (6)	
1994-95	5928 (21)	748 (3)	1164 (4)	2728 (10)	1228 (3)	1114 (4)	1630 (6)	2137 (8)	713 (3)
1995-96	7526 (21)	822 (2)	1446 (4)	3924 (11)	1752 (5)	1105 (3)	2106 (6)	2566 (7)	867 (2)
1996-97	10036 (26)	820 (2)	1371 (4)	3644 (9)	1424 (3)	1484 (4)	2925 (8)	2661 (7)	992 (3)
1997-98	8164 (20)	738 (2)	1421 (3)	3622 (9)	2088 (5)	1051 (3)	3342 (8)	2956 (7)	3169 (8)
1998-99	6399 (15)	724 (2)	1064 (3)	3045 (7)	2223 (5)	798 (2)	3760 (9)	2684 (6)	5072 (12)
1999-00	12611 (25)	875 (2)	952 (2)	2745 (6)	2797 (6)	1137 (2)	5436 (11)	2866 (6)	4706 (10)
2000-01	15650 (31)	774 (2)	778 (2)	2709 (5)	3509 (7)	700 (1)	4808 (10)	2444 (5)	4638 (9)
2001-02	14000 (27)	1144 (2)	834 (2)	2971 (6)	3782 (6)	1149 (2)	4623 (9)	2800 (5)	4582 (9)
2002-03	17640 (29)	1038 (2)	944 (2)	3566 (6)	5599 (7)	1897 (3)	6063 (10)	3025 (5)	4288 (7)
2003-04	20570 (26)	1296 (2)	1506 (2)	4744 (6)	7506 (7)	3228 (4)	7129 (9)	4032 (5)	6856 (9)
2004-05	29844 (27)	2469 (2)	2670 (2)	6818 (6)	9993 (7)	4327 (4)	9423 (8)	5700 (5)	11150 (10)
2005-06	43963 (30)	3882 (3)	4572 (3)	10010 (7)	13242 (7)	8839 (6)	9134 (6)	6984 (5)	11318 (8)
2006-07	57144 (31)	8346 (5)	6425 (4)	13850 (8)	15973 (7)	9439 (5)	7488 (4)	7831 (4)	14646 (8)
2007-08	79641 (33)	7906 (3)	8684 (4)	19661 (8)	20324 (9)	8248 (3)	7975 (3)	9879 (4)	17846 (7)

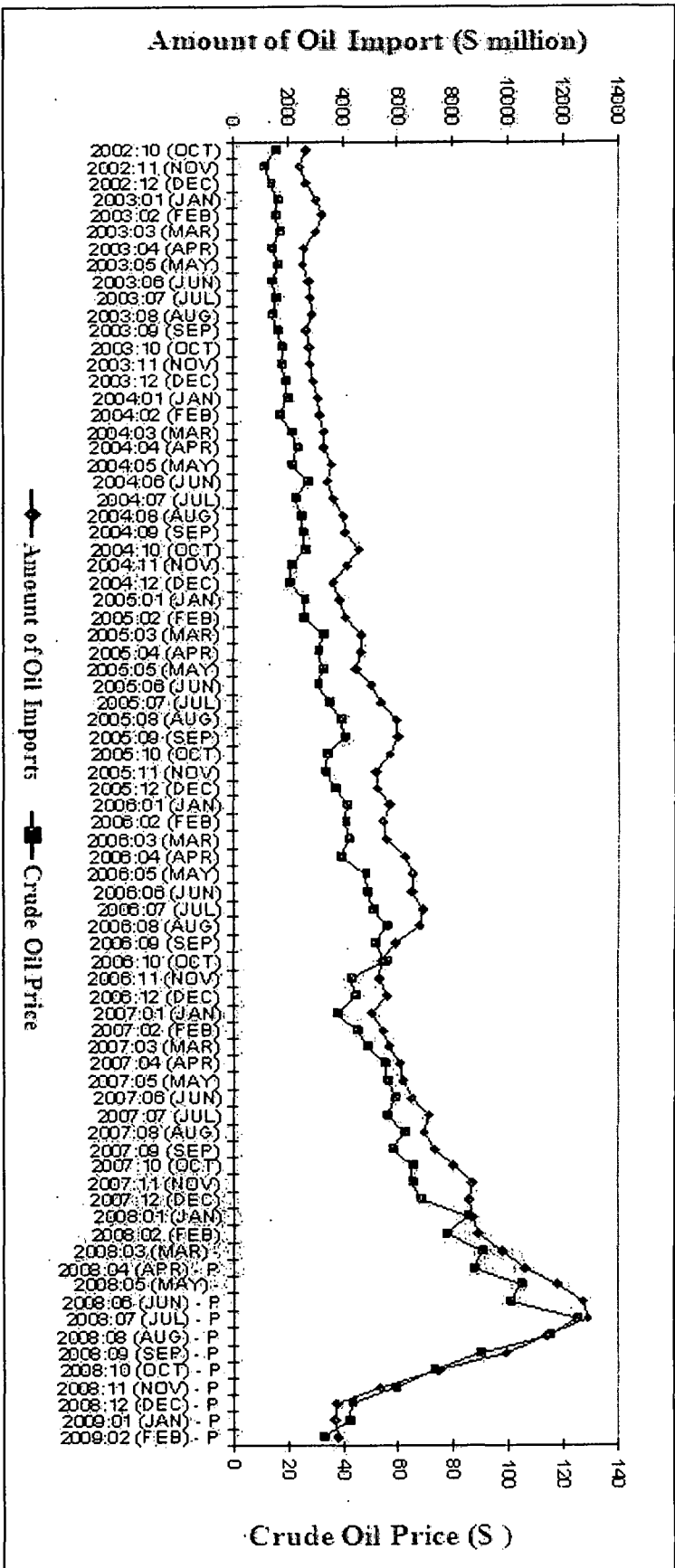
Source: Computed from RBI (2009a)

**Annexure 2.3: Share of POL and Non POL import**  
(Value are in Percentage share to the total import)

Years	POL Import	Non POL Import
1970-71	8.3	91.7
1980-81	41.9	58.1
1990-91	25.0	75.0
1995-96	20.5	79.5
1996-97	25.6	74.4
1997-98	19.7	80.3
1998-99	15.1	84.9
1999-00	25.4	74.6
2000-01	31.0	69.0
2001-02	27.2	72.8
2002-03	28.7	71.3
2003-04	26.3	73.7
2004-05	26.8	73.2
2005-06	29.5	70.5
2006-07	30.8	69.2
2007-08	33.2	66.8

*Source: Computed from RBI (2009a)*

Annexure 2.4: Monthly Petroleum Import in India and crude oil Price



Source: Computed from RBI, Database on Indian Economy, US Energy Information and Administration.

## Chapter 3

### Financing of Balance of Payments: The Role of Non Debt Creating Flows

#### 3.1 Introduction

With the onset of liberalisation and consequent drastic change in the economic policies in the 1990's, there has been a shift in the BoP financing from debt flows to non-debt flows. The academicians and policy makers considered it as a positive sign since the non-debt creating flows are expected to remove vulnerabilities in BoP. The underlying logic is that more dependence on non-debt flows or foreign investment for financing BoP would reduce the cost of financing BoP and impart more stability to BoP. Moreover, in the long run foreign investment is expected to strengthen the BoP by way of additional foreign exchange earnings possibly through export of goods and services from the firm which received the Foreign Direct Investment (FDI). Foreign investment consists of two parts, one is FDI and other is Foreign Portfolio Investment (FPI). FDI actually received by different companies in India whereas most of the FPI goes to secondary market and acquire the shares of different companies through stock market. Unlike debt creating flows, both FDI and FPI have no fixed cost of amortisation. Due to distinct nature of operation of these two capital flows, their respective effect on BoP will be different. In this context, the major objective of present chapter is to analyse the extent of non-debt flows to finance BoP and its impact on BoP.

This chapter is organised into seven sections including the introduction. Section 3.2 reviewed major policy changes related to BoP in post liberalisation period. Section 3.3 analyse trend and composition of foreign investment flows to India. Sections 3.4 counter factually analyse how much foreign investment we have received for financing BoP. The effect of foreign investment on BoP is separately measured in sections 3.5 and 3.6. Section 3.5 section deals with the issue of FPI where as the section 3.6 deals with the effect of FDI on BoP and finally section 3.7 concludes main findings of the chapter.



### 3.2 Major Policy Changes Related to Balance of Payments in Post Liberalisation Period

Major policy changes in post liberalisation period with related to BoP was based on the Rangarajan Committee Report (RBI, 1993) on BoP regime. The committee was appointed in the context of the BoP crisis in 1991. This report reviewed the existing policies towards foreign investment, external aid and ECB, non-resident foreign currency deposits, exchange rate policy, foreign exchange reserves and the BoP.

The main recommendations in the Rangarajan Committee Report were (1) liberalisation of current account transactions leading to current account convertibility (2) need to contain current account deficit within limits (3) to have a compositional shift from debt to non debt creating flows (4) strict regulation of ECB especially short term debt (5) discouraging volatile elements of flows from NRIs (6) gradual liberalisation of outflows and (7) disintermediation of government in the flow of external assistance. Thus the major elements identified in the report were a policy preference for foreign equity over foreign debt, reduction in recourse to commercial sources of borrowing and NRI deposits so as to prevent the recurrence of a crisis in the future. Table 3.1 gives a summary of major policy changes related to BoP in liberalisation period.

**Table 3.1: Summary of Major policy Changes Related to BoP in Post Liberalisation Period**

Policy changes	Reasons
The government was forced to approach IMF in 1991 for assistance and also to adopt harsh measures to reduce imports	These were in response to the BoP crisis in 1991 caused by the huge external debt together with widening current account deficits, inadequate capital flows, macroeconomic imbalances, and political uncertainty
Structural adjustment and stabilization programs in 1991 including both domestic and external sector reforms	Shift from state controlled to market driven policy regime following BoP crisis in 1991
US dollar as the rupee of intervention; Dual exchange rate in 1992 under LERM	To make rupee partially convertible on the current account
Full current account convertibility in 1994	Acceptance of obligations under Article VIII of the IMF's articles of Agreement

## **Chapter 3**

### **Financing of Balance of Payments: The Role of Non Debt Creating Flows**

#### **3.1 Introduction**

With the onset of liberalisation and consequent drastic change in the economic policies in the 1990's, there has been a shift in the BoP financing from debt flows to non-debt flows. The academicians and policy makers considered it as a positive sign since the non-debt creating flows are expected to remove vulnerabilities in BoP. The underlying logic is that more dependence on non-debt flows or foreign investment for financing BoP would reduce the cost of financing BoP and impart more stability to BoP. Moreover, in the long run foreign investment is expected to strengthen the BoP by way of additional foreign exchange earnings possibly through export of goods and services from the firm which received the Foreign Direct Investment (FDI). Foreign investment consists of two parts, one is FDI and other is Foreign Portfolio Investment (FPI). FDI actually received by different companies in India whereas most of the FPI goes to secondary market and acquire the shares of different companies through stock market. Unlike debt creating flows, both FDI and FPI have no fixed cost of amortisation. Due to distinct nature of operation of these two capital flows, their respective effect on BoP will be different. In this context, the major objective of present chapter is to analyse the extent of non-debt flows to finance BoP and its impact on BoP.

This chapter is organised into seven sections including the introduction. Section 3.2 reviewed major policy changes related to BoP in post liberalisation period. Section 3.3 analyse trend and composition of foreign investment flows to India. Sections 3.4 counter factually analyse how much foreign investment we have received for financing BoP. The effect of foreign investment on BoP is separately measured in sections 3.5 and 3.6. Section 3.5 section deals with the issue of FPI where as the section 3.6 deals with the effect of FDI on BoP and finally section 3.7 concludes main findings of the chapter.

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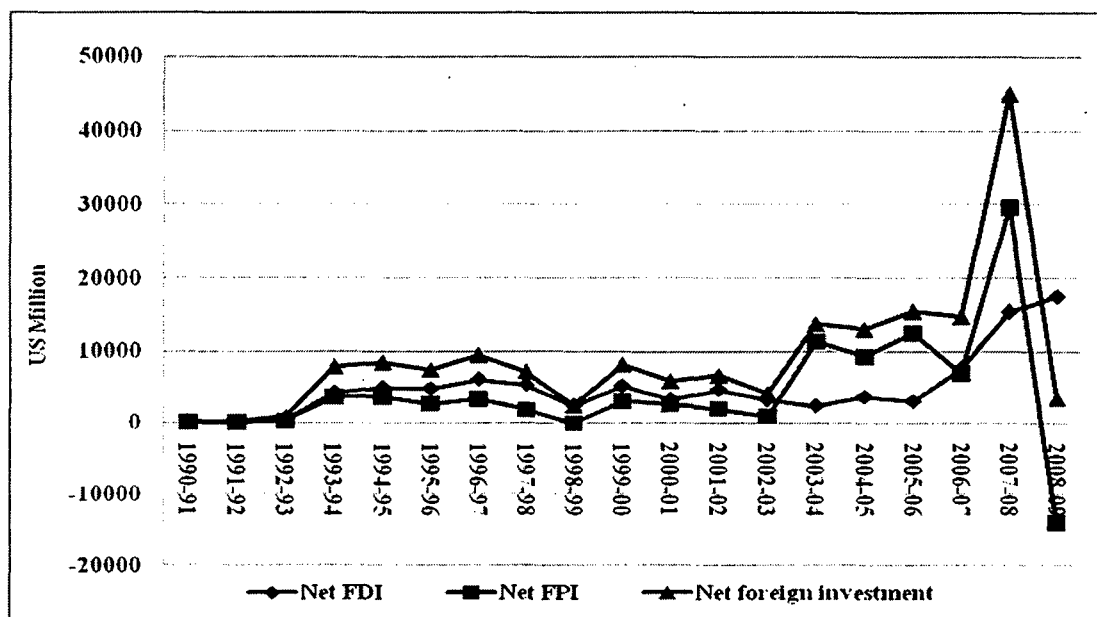
Policy changes (contd.)	Reasons (contd.)
Rangarajan Committee Report on BoP in 1993	Reforming BoP so as to avoid recurrence of crisis in future.
Change in the composition of capital account with a shift from debt to equity and encouraging FDI and FPI flows	Based on Rangarajan Committee report
Relaxation in the limits and removal of ceilings on FDI and opening up of new sectors to FDI from 1991; setting up of FIPC in 1996; gradual liberalisation of FPI outflows	Policy shift recognizing the growing importance of FDI as an instrument of technology transfer, augmentation of foreign exchange reserves and also as a channel for portfolio diversification following BoP crisis(1991)
Opening up of equity market to FPI in 1992; FIIs allowed to invest in Indian debt and equity markets; progressive liberalisation of ceilings on FPI;	To inject global liquidity into the markets; to raise price earning ratio and thereby reducing cost of capital; to raise the equity flows to help the corporate sector shift from their dependence on internal resources and funds from public sector banks to the capital markets ; providing a channel for portfolio diversification to the residents and achieving improved access to international financial markets
Policies favouring long term borrowings; simplifying and rationalising ECB procedures; new sectors opening up to ECBs since 1991 onwards	ECBs as an additional source of funds for corporates to finance the expansion of existing capacity as well as new investment; at the same time strict control on short term borrowings so as to prevent the recurrence of a BoP crisis in the future
New schemes to attract NRI Deposits from 1991-92 onwards; a policy shift in favour of local currency denominated deposits; rationalisation of interest rates on rupee denominated NRI deposits; linking of the interest rates to LIBOR for foreign currency denominated deposits etc	To attract stable NRI deposits recognising their significant role in bolstering overall banking capital inflows and the capital account surplus
Two committees on full Capital Account Convertibility (CAC) by the RBI under Tarapore, one in 1997 and the other in 2006	Committee 1 to obtain a road map towards full CAC; suggested the preconditions for achieving full CAC based on international experiences; Cautious approach towards full CAC following East Asian crisis in 1997. Need for full CAC in the changed scenario put forward by Manmohan Singh (2006) and the second committee to review the existing policies and provide a roadmap for full CAC. Phase by phase liberalisation of capital account recommended.

*Source: Government of India (2002b), RBI (1997, 2006b, 2008b), Virmani (2001), Cerra and Saxena (2002)*

From the table it can be seen during post liberalisation period policies were drafted to attract more non-debt flows. Next we shall move on to see, how far these policy changes succeeded in getting foreign investment.

### 3.3 Foreign Investment to India

In the year 1990-91 net foreign investment stood at \$ 109 million and thereafter it gradually increased and in 2007-08 it reached at \$44 billion. However, it got reduced to \$ 3.5 billion in 2008-09. Though there has been increase in foreign investment, however net foreign investment showed a huge dips in two periods in post liberalisation period. First decline is occurred during 1998-99 and second one happened in 2008-09. Asian economic crisis<sup>1</sup> was the cause of decline in 1998-99 and latter is caused by global economic crisis<sup>2</sup>. As we mentioned earlier, Net foreign investment is the sum of Net FDI and net FPI. Net foreign investment to India showed a large increase since 2002-03 and this large increase mainly contributed by FPI rather than FDI



**Figure 3.1: Net Foreign Investment in India**

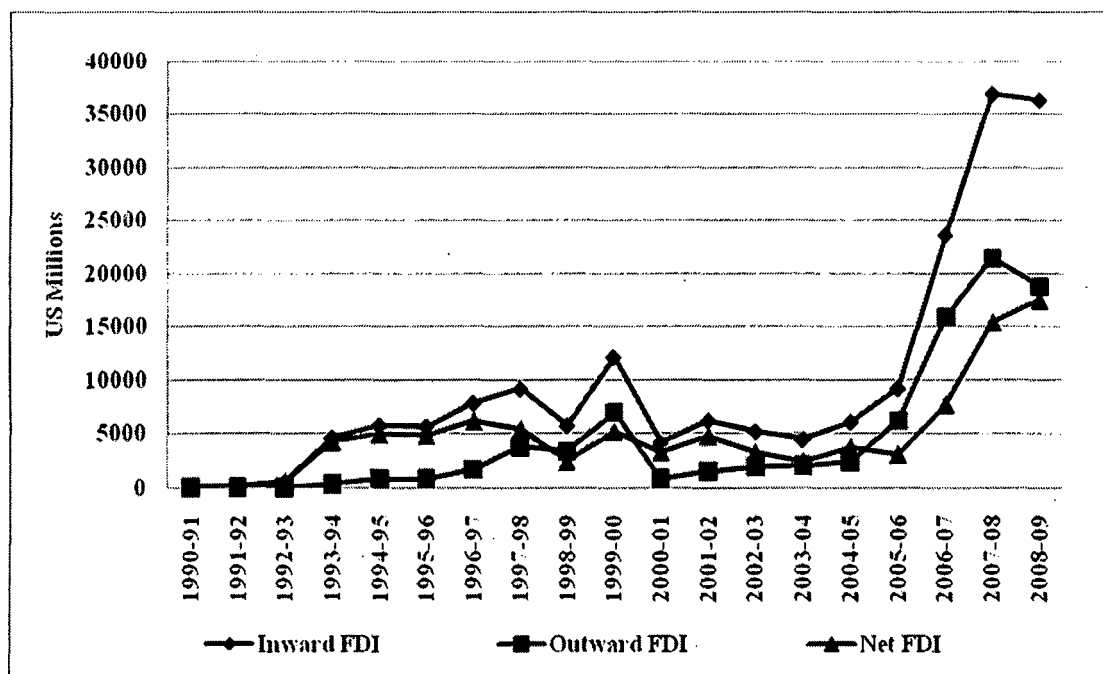
(Values are millions of US \$)

Source: Computed from RBI, *Database on Indian Economy*

<sup>1</sup> Asian financial crisis begins in July 1997 and raised fears of a worldwide economic meltdown due to financial contagion. The crisis started in Thailand with the financial collapse of Tai baht. Indonesia, South Korea and Thailand were the countries most affected by the crisis.

<sup>2</sup> Global economic crisis is one of the major economic crises faced by the world economy after the Great depression in 1930. Significant worsening happened in between the late 2008 and early 2009. It affected almost all the countries during this period as credit tightened and international trade declined.

We have also examined the inward and outward components of FDI in order to have a clear understanding of it. Net FDI is the difference between inward and outward FDI. Along with Inward FDI, outward FDI from India show a dramatic increase from 2003-04 onwards and made a low net FDI in India during the same period.



**Figure 3.2: Inward and Outward FDI<sup>3</sup>**

(Values are millions of US \$)

Source: Computed from RBI, *Database on Indian Economy*

In the case foreign portfolio investment, net FPI is found to be very low in relation to large FPI inflows. This is because large FPI inflows usually accompanied by large FPI outflows. For instance, gross inflows of FPI were high at \$ 235.9 billion in 2007-08 but it is accompanied by gross outflows of FPI worth \$ 206.3 billion in the same financial year and consequently made net FPI is only at \$29.5 billion in that year. Foreign Institutional Investments (FII) constitute around 90% of FPI inflows to India whereas the share of American Depository Receipts (ADR) and Global Depository receipts (GDR) are found to be very low. Evidence shows that FII mainly flowing into stock market in India and acquires the shares of different companies. At the same time FII outflows from India were excessive and it is found to be sole contributor to the large gross outflows of FPI from India.

<sup>3</sup> Inward FDI = FDI Inflows to India (credit) + FDI from India (credit), Outward FDI = FDI inflows to India (debit) + FDI from India (debit)

**Table 3.2: Share of Non Debt Creating Flows in the Total Net Capital Inflows to India**

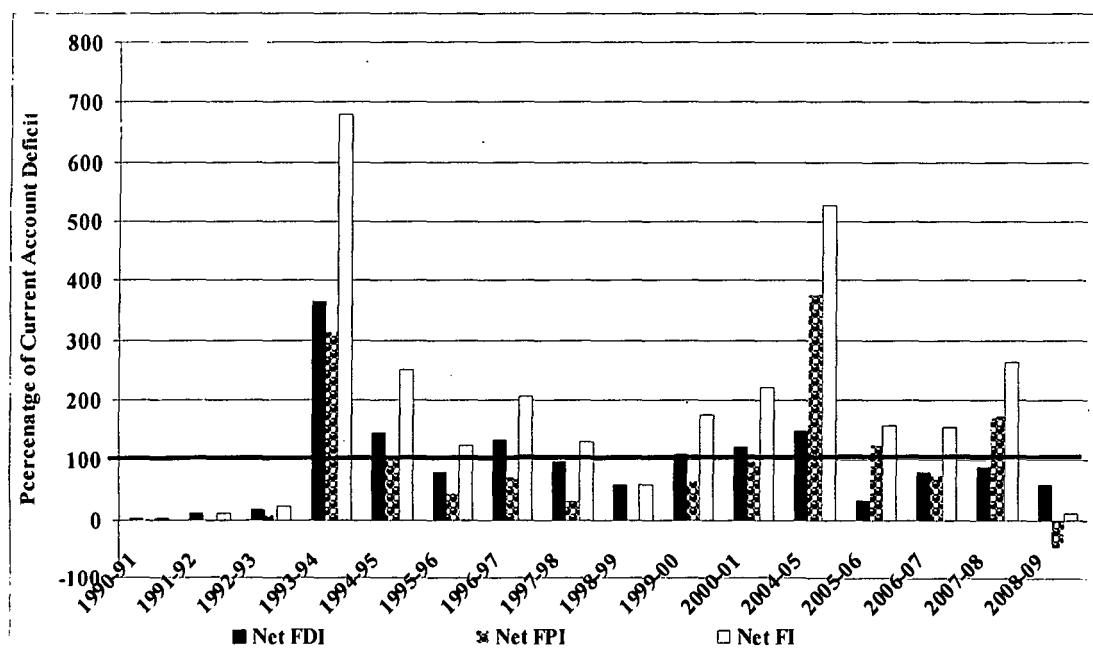
	1990 -91	1991 -92	1992 -93	1993 -94	1994 -95	1995 -96	1996 -97	1997 -98	1998 -99	1999 -00	2000 -01	2001 -02	2002 -03	2003 -04	2004 -05	2005 -06	2006 -07	2007 -08	2008 -09	
Net capital flows (\$ million)	7056	3915	3876	8894	8502	4089	12007	9844	8437	10444	8840	8551	10840	16736	28022	25470	45203	107993	9146	
of which (%)																				
<b>1) Non Debt Creating flows</b>	<b>1.5</b>	<b>3.4</b>	<b>14.4</b>	<b>47.6</b>	<b>56.5</b>	<b>117.5</b>	<b>51.3</b>	<b>54.8</b>	<b>28.6</b>	<b>49.7</b>	<b>56.6</b>	<b>95.2</b>	<b>55.5</b>	<b>93.7</b>	<b>54.6</b>	<b>84.0</b>	<b>65.8</b>	<b>58.9</b>	<b>231.0</b>	
a) FDI	1.4	3.3	8.1	6.6	15.8	52.4	23.7	36.2	29.4	20.7	26.0	71.6	46.5	25.8	21.4	34.9	50.3	31.7	382.5	
b) FPI	0.1	0.1	6.2	41.0	42.1	65.1	27.6	18.6	-0.8	29.0	30.6	22.8	8.7	67.9	33.1	49.1	15.6	27.4	-153.4	
<b>2) Debt creating flows</b>	<b>83.3</b>	<b>77.4</b>	<b>39.9</b>	<b>22.1</b>	<b>25.0</b>	<b>57.7</b>	<b>61.7</b>	<b>52.4</b>	<b>54.2</b>	<b>23.3</b>	<b>69.3</b>	<b>12.4</b>	<b>-12.3</b>	<b>-6.6</b>	<b>35.2</b>	<b>41.0</b>	<b>64.4</b>	<b>38.9</b>	<b>87.2</b>	
<b>3) Other capital</b>	<b>15.3</b>	<b>19.3</b>	<b>45.8</b>	<b>31.1</b>	<b>17.1</b>	<b>-75.2</b>	<b>-13.0</b>	<b>-7.2</b>	<b>17.0</b>	<b>27.2</b>	<b>-25.9</b>	<b>-7.6</b>	<b>56.8</b>	<b>12.3</b>	<b>10.2</b>	<b>-25.0</b>	<b>-30.0</b>	<b>2.2</b>	<b>-218.2</b>	
<b>Total(1+2+3)</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	

Source: Compiled from Annual report of RBI (Various years)

Notes: Other capital includes leads and lags in export, banking capital excluding NRI deposit

### 3.4 Foreign Investment and Financing Balance of Payments in India

As we mentioned earlier, with the report of the Rangarajan committee, the preference of financing BoP shifted in favour of non-debt creating flows or foreign investment during the post liberalisation period. From the table 3.2, it is clear that relative share of non-debt flows in the total capital flows highly increased in the liberalisation period. In order to understand financing BoP with foreign investment, we constructed a figure (Figure 3.3) that shows the availability of foreign investment in relation to current account deficit. Along with foreign investment, two parts of foreign investment such as FDI and FPI are also represented in the figure as a percentage of each form in relation to current account deficit. The horizontal line at 100 on the Y-axis represents 100 per cent financing of BoP.



**Figure 3.3: Foreign investment and financing Balance of Payments**  
 (Values in the figure represent Percentage of each flows to current account deficit)  
 Source: Computed from RBI, *Database on Indian Economy*

Current account has been in deficit in almost all the years in the post liberalisation period. Therefore it necessitated a condition of capital account surplus to finance those current account deficits. However, as opposed to general trend, current account had been in surplus in very short period, especially during the three consecutive years namely in 2001-02, 2002-03 and 2003-04. Hence, we exclude those three years from the analysis.



Nevertheless, in the remaining years of post liberalisation period, at least 100 per cent or it above financing BoP with foreign investment only happened in 11 out of total 16 years (See Figure 3.3). However 100 per cent financing with FDI happened only in 6 years. Therefore the years of achievement of 100 per cent financing BoP with foreign investment is mainly due to FPI part of foreign investment, because its contribution is relatively high in the liberalised period. From total 11 successful years of financing BoP with foreign investment where as in six years we got 200% of foreign investment in relation to current account deficit (or two times higher foreign investment in relation to current account deficit). Thus it is clear that foreign investments are getting not according to our needs. High amount of foreign investment in relation to current account deficit is one of the main reasons for the buildup of foreign exchange reserve in India during post liberalisation period. Despite in the year of global economic crisis, India had received adequate FDI required for financing BoP. But in that year, we couldn't finance the current account deficit neither with FDI nor with the total foreign investment. This is due to the heavy net outflow of some capital flows, especially three flows namely, foreign portfolio investment, short-term debt, and banking capital, made capital account surplus very low in the corresponding year<sup>4</sup>. Hence it must be remembered that along with the size of foreign investment and net capital flows composition are also equally important.

### **3.5 Foreign Portfolio Investment and its effect on Balance of Payments**

Since liberalisation, major proportion of foreign investment in India is coming in the form of FPI. Therefore to a great extent, we used it for financing BoP. Thus it is worthwhile to assess its effect on BoP. FPI essentially consist of three element namely foreign institutional investment (FII), American depository receipts (ADR) and global depository receipts (GDR). In the entire post liberalisation period, FII mainly dominates in the FPI. From 2000 onwards government allowed the FII to invest in debt instruments. However, the investment of foreign institutional investors is mostly concentrating in equities of different companies through stock market. Because of its size and volume of

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<sup>4</sup> Because of the net outflows of three capital flows, particularly FPI (-\$14 billion), short term credit (-\$5.7) and banking capital (-\$3.3 billion) have made the capital account balance only at \$9.1 billion in 2008-09 financial year

transactions in stock market, here we consider only the FII part of FPI and its respective effect on BoP. FPI have no fixed cost of amortisation like debt flows, but dividend and capital gain are found to be two cost of FII on the BoP, in which latter would consider as cost only if it is repatriated from India<sup>5</sup>.

For measuring the cost of financing BoP with FII; market capitalisation, capital gain and dividend of FII are calculated with the help of PROWESS data base (CMIE). Market capitalisation means total market value of FII. For getting FII's market capitalisation, we measured the market value of FII investment in Bombay stock exchange (BSE) listed companies. FII market capitalisation is measured at the end of every financial year and it is the average of every March month market capitalisation of FII. This method is adopted mainly to reduce the problem of volatility in the market capitalisation. Market capitalisation of FII is calculated through two variables such as total market capitalisation of each companies and FII share of equities in the respected companies. Market capitalisation of FII in a particular company is arrived by multiplying above two variables. Then add all the companies for getting total market capitalisation of FII. Capital gain of FII is calculated by the difference between the cumulative net investments of FII from SEBI database (historical cost) and total market capitalisation of FII (March month average). FII's dividend is calculated by multiplying the variables dividend per share and FII's latest number of share holding in a company (closer to dividend date). In PROWESS database, FII share holdings are available only on quarterly basis. FII share holding are available in every quarter of financial year. Dividend earning of FII for a financial year is the sum of quarterly dividend earning in a year. Quarterly dividend is calculated by multiplying dividend per share with FII's share holdings in that quarter<sup>6</sup>. Cumulative net investments of calculated with the help of SEBI database and we have used PROWESS database for calculating market capitalisation of FII. Due to the unavailability of relevant variable in PROWESS database we are not able to calculate market capitalisation, capital gain and dividend earning of FII before 2000.

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<sup>5</sup> Detailed explanation are given in the coming sections

<sup>6</sup> FII share holdings are available only in quarters, so we use latest quarterly share holding of FII closer to dividend announcement date.

From the table 3.3 it can be seen that, apart from capital gain, dividend earned by the FII's is more or less same throughout the study period. High dividend repatriation of \$ 479.9 million have found only in 2000-01 and after that it suddenly fell down at \$ 208.8 in 2001-02 and since then it is mildly fluctuating around \$ 200 million.

**Table 3.3: Foreign Portfolio Investment and its effect on Balance of Payments**  
(values are in millions of US \$)

Year (1)	Gross purchase (2)	Gross sales (3)	Net investment (4)	Cumulative net investment (5)	FII's market capitalisation (market value) (6)	Capital gain (7)=(5- 6)	Dividend (8)
1992-93	6	1	4	4	NA	NA	NA
1993-94	1783	149	1635	1639	NA	NA	NA
1994-95	2430	903	1528	3166	NA	NA	NA
1995-96	2898	823	2075	5242	NA	NA	NA
1996-97	4381	1966	2416	7657	NA	NA	NA
1997-98	5030	3427	1603	9260	NA	NA	NA
1998-99	3831	4207	-377	8884	NA	NA	NA
1999-00	13121	10785	2336	11220	NA	NA	NA
2000-01	16209	14035	2175	13394	12785	-609	480
2001-02	10467	8631	1836	15230	12948	-2282	209
2002-03	9724	9169	555	15786	11930	-3856	215
2003-04	31524	21565	9959	25745	32975	7230	235
2004-05	48285	38074	10211	35956	51942	15986	233
2005-06	78372	69006	9366	45322	101906	56584	229
2006-07	114941	108130	6810	52132	121247	69114	234
2007-08	235586	219140	16445	68578	193002	124424	255
2008-09	132287	141957	-9671	58907	72868	13961	222

Source: Computed from SEBI database, PROWESS database (CMIE)

Note: First five columns are calculated from SEBI database and column six, seven, eight are calculated with the help of PROWESS data base database (CMIE). All the values in the tables are first calculated in Rupees and then converted into Dollar the using implicit exchange rate

According to RBI in 2008-09 total foreign investments (in India) repatriated dividend and profit worth \$ 3168 million. As per our calculation FII account for around \$ 222 million repatriation in the same year. Hence we can argue that FII cause around 14% in the total dividend repatriation from India in that particular year. In 2005-06, share of dividend by FII is only 10% which is increased to 14% in 2006-07. FII are active traders in the stock market for whom dividend matters little where as capital gain seems to be most important attraction for them.

From the table 3.3, it is clear that FII earns substantial capital gain from Indian stock market especially from 2003-04 onwards. However, between 2000-01 and 2002-03, it in was negative that means their total market value of shares was lower than the cumulative stock in those years. FII had only \$ 7.2 billion worth of capital gain in 2003-04, but it is increased to very high at \$ 124.4 billion in 2007-08 and suddenly declined to \$ 13 billion in the end of 2008-09 due to global economic crisis. Whole of the capital gain of FII cannot be considered as a cost on BoP, because it would become cost in BoP only when it is repatriated from India. With the available data it is difficult to assess how much capital gain is repatriated from India. Increase in the amount of portfolio outflows in recent years may be a significant evidence for their repatriation of this huge amount of capital gain. For instance, the ratio of gross sales to gross purchase of FII was only about 0.68 in 2003-04. Since then, this ratio is dramatically increasing and it reached very high at 0.93 in 2007-08. Thus, large outflows of FII starting from 2003-04 might have reflecting the repatriation of high capital gain from India. However capital gain and its repatriation are not recorded in the current account, but it would affect only in the capital account and reserve account of BoP<sup>7</sup>. Capital gain and its repatriation of FII could have reduced that much of capital account surplus through FII outflows, therefore it consequently reduce that much of foreign exchange reserve. However, it can be concluded that financing with

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<sup>7</sup> Balance of Payment manual 5<sup>th</sup> edition considered holding of capital gain and losses are not classified as income on investment. Hence it would not record in the current account of Balance of Payment. But all the realized holding gains and losses arising from the transaction are included in capital account

these forms of foreign investment have not only made instable BoP<sup>8</sup>, but also they are exerting huge cost on BoP through capital gain repatriation. But interestingly, this repatriation is seems to be an 'invisible' element in BoP. Invisible element here means no one can measure the exact amount they repatriated from India.

### **3.5.1 Capital Gain of FII in India, a recent experience**

Though there are evidences of repatriating capital gain of FII, but it is difficult to measure the exact amount repatriated and remains as 'invisible' in BoP. Foreign investors cause around \$ 15 billion net outflow in financial year 2008-09 and it is one of the major factors responsible for the low capital account surplus in that year whereas in the previous financial year they created net inflows worth \$ 20 billion. Why this much of net FII outflows occurred in the year 2008-09?

Quarterly data shows that FII had been continuously showing net outflows in the five successive quarters, in which occurrence of net outflows started from the last quarter of 2007-08 and continues in the entire quarter of 2008-09. The global economic crisis severely affected the third and fourth quarter of 2008-09. Nevertheless, the cumulative sum of net outflows in the fourth quarter of 2007-08 and the first quarters of 2008-09 is at \$ 9.3 billion. This is slightly higher than the sum of cumulative net outflows of FII in the last two quarters of 2008-09, in which it caused only at \$ 8.4 billion. Sum of net outflows of FII in the last two quarters of 2008-09 occurred in the peak stage of global economic crisis<sup>9</sup> but this period's net outflow seems to be low when we compare sum of net outflows in the last quarter of 2007-08 and the first quarter of 2008-09.

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<sup>8</sup> Instable BoP means, for any uncertainty it can go of the country and would make pressure in BoP. Two times it is happened. One situation is happened at the time of Asian Financial crisis and second is happened at the time of Global economic Crisis. In the second time management of BoP became a difficult task in India due to outflow of capital flows particularly FII

<sup>9</sup> After the Lehman brother filed for bankruptcy

**Table 3.4: Share holding of FII in Bombay Stock Exchange**

(Number of shares are in Crores)

Last quarter of financial year	A	B	T	S	TS	Z	Total
2000-01	181.2	33.2	8.4	0.5	0.3	2.3	225.9
2001-02	196.2	31.7	6.2	0.5	0.1	2.7	237.3
2002-03	223.5	34.7	11	0.8	0.2	2.4	272.5
2003-04	360.3	67.5	10.8	1.6	0.3	2.2	442.7
2004-05	566.6	102	12	6	0.6	1.8	688.9
2005-06	961.4	216.6	18.5	17	2	2.1	1217.6
2006-07	1130.7	341.4	35.6	28.5	5.5	1.2	1542.8
2007-08	1341.5	438.5	46.4	50.2	8.3	0.6	1885.5
2008-09	1188.1	382.7	38.2	51.9	38.1	0.4	1699.6

Source: Computed from PROWESS database (CMIE)

Note: share holding of FII measured in the last quarter of every financial (Jan to Mar) year

In India, there has been high amount of net investment of FII occurred during the first three quarter of 2007-08 which helped the SENSEX to rise above magical figure of 20000 Points<sup>10</sup>. Definitely, capital gain of FII could be very higher in that period. Since then, due to world economic slowdown, FII became a net seller in the market for the five successive quarters (from fourth quarter of 2007-08 and all the quarters of 2008-09) and expect that they repatriated a miniscule amount of huge capital gain they had in the stock market.

Certainly one can ask the question why this much of outflow in the entire quarter of 2008-09 and the last quarters of 2007-08. The heavy capital gain of FII could be the main reason for such heavy outflows. When there is an uncertainty especially at the time of having high capital gain, they probably have the mentality to sell their share and if they do so, they would get more amount per share than it purchased. Consequently, at the time of having high capital gain of FII, outflow would be more than expected.

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<sup>10</sup> BSE Sensex or Bombay Stock Exchange Sensitive Index (SENSEX) is a value weighted index composed of 30 stocks that started January 1, 1986. The Sensex is regarded as the pulse of the domestic markets. It consists of the 30 largest and most actively traded stocks, representative of various sectors, on the Bombay stock exchange. These companies account for around fifty per cent of the market capitalisation of the BSE. The base value of the sensex is 100 on April 1 1979, and the base year of SESEX is 1978-79. The index has increased by over ten times from June 1990 to the present. The Sensex on February 6, 2006 touched 10,003 and crossed 20,000 mark in October 29, 2007 and reached its ever time peaks at 21078 in January 8, 2008.

Interestingly, most of the FII investment has been concentrating in blue chip shares<sup>11</sup>. For instance, in Bombay Stock Exchange there are six categories of shares namely A, B, T, S, TS, and Z<sup>12</sup>. However, FII investment mostly concentrating around A group shares, in which A group consist of 200 companies. Not only the FII investment is concentrated on A group shares, but also most of their significant market capitalisation are also belong to this group (See Table 3.5)

**Table 3.5: FII market capitalisation in different company categories in BSE**  
(Values are in Rs Crores)

BSE							
Years	A	B	T	S	TS	Z	Total
2000-01	52099 (89)	5961(10)	322	20	6	1	58409
2001-02	56720 (92)	4826 (8)	168	14	1	21	61750
2002-03	53529 (93)	3973 (7)	171	44	2	16	57735
2003-04	140088 (93)	10712(7)	456	256	9	2	151524
2004-05	211469 (91)	20002(9)	950	901	59	0	233382
2005-06	393919 (87)	50849 (11)	2072	4048	286	2	451175
2006-07	478002 (87)	59278 (11)	2942	7883	959	1	549065
2007-08	687396 (89)	74447 (10)	3276	10545	994	1	776658
2008-09	312746 (94)	18397 (6)	555	2611	157	0	334465

Source: Computed from PROWESS database, (CMIE)

Notes: Values in the bracket Indicate Percentage share to the Total

In the case of FII, we have seen that gross sales were very higher than gross purchase in the five successive quarters, especially from the last quarters of 2007-08 to last quarters of 2008-09. Sum of the net outflows in all the five quarters is equal to \$19 billion, out of which 2008-09 financial year alone contribute \$15 billion. Thus one could probably expect that the total number of shares holded by FII in the end of 2008-09 would be

<sup>11</sup> A blue chip shares means shares of a well-established company having stable earnings, no extensive liabilities and having less chance of capital lose to the shareholders. Blue chip stocks pay regular dividends, even when business is faring worse than usual. In Bombay Stock Exchange, blue chips shares are belong to 'A' group categories of shares.

<sup>12</sup> The Bombay Stock Exchange (BSE), India's leading stock exchange, has classified Equity scrips into categories A, B, S, T, TS, & Z to provide guidance to the investors. The classification is on the basis of several factors like market capitalisation, trading volumes and numbers, track records, profits, dividends, shareholding patterns, and some qualitative aspects. Group A is the most tracked class of scrips consisting of about 200 scrips. Market capitalisation is one key factor in deciding which scrip should be classified in Group A.

probably very lower than the share they had hold in the end of 2007-08. This expectation is because for large FII outflows normally they have to sell large number of shares. We can test this hypothesis by analyzing share holding of FII in Bombay stock exchange.

FII hold 1699.5 Crores of shares in Bombay Stock Exchange at the end of 2008-09 financial years which shows only a marginal reduction worth 185.9 Crore of shares as compared to the end of previous financial year (2007-08), in which they hold 1885.5 Crores of shares. FII investments are concentrated in A group shares but this group also bears the substantial share in the market capitalisation of FII (See Table 3.5). But A group shares shows only a reduction in the holding of 153.3 Crores shares in 2008-09 as compare to the end of last financial year (See Table 3.4). Put it differently, FII have 1188.1 Crores of A group shares in 2008-09 as compared to 1341.5 Crores of share in 2007-08. How the net sales of 153.3 Crores of A group shares can create that much of outflow? Definitely, high capital gain could be the main reason behind the heavy net outflow of FII. At the time of selling the shares, high capital gain allows the FII to get a higher price for every shares than it purchased. Therefore selling few number of A group share can also make huge outflow from India. Interestingly, other small categories like TS and S, they actually increase their share holding at the end of 2008-09 as compared to the end of previous financial year that again strengthen our argument (See Table 3.4).

### **3.5.2 FII share of market capitalisation in BSE**

FII had \$ 124.2 billion worth of capital gain at the end of 2007-08, due to the effect of global economic crisis it got reduced to only \$ 13.9 billion in 2008-09. However FII net outflow in 2008-09 was \$ 15 billion seems to be very low in relation to the large fall in the capital gain of FII. In other words they were not able to repatriate full amount of capital gain they had in the market. Despite a huge net outflow of FII in 2008-09, having \$ 13 billion worth capital gain of FII in the end of 2008-09 found to be interesting. Thus we can argue that in 2008-09, they have had a further more potential for net outflows than they did in that year. Due to the heavy net sales of shares, market capitalisation of BSE is greatly reduced at the end of 2008-09. However, even after the heavy net sales of FII in Indian stock market in 2008-09, FII's share in the total market capitalisation of



BSE was at 11% in the end of 2008-09 and this share of market capitalisation of FII is even higher than 2002-03 (See Table 3.6).

**Table 3.6: FII share in the market capitalisation of BSE**  
(Values are in Rs Crore)

Year	FII market capitalisation	BSE market capitalisation (March end)	FII share of market capitalisation (%)
2000-01	58409	571553	10
2001-02	61750	612224	10
2002-03	57735	572198	10
2003-04	151524	1201207	13
2004-05	233382	1698428	14
2005-06	451175	3022191	15
2006-07	549065	3545041	15
2007-08	776658	5138015	15
2008-09	334465	3086076	11

*Source: Computed from RBI (2009a), PROWESS database (CMIE)*

To conclude with the available evidence, we can argue that capital gain and its repatriation of FII are very high in India. However high FII outflows as a result of capital gain can affect only the capital account and reserve account of BoP. But capital gains and its repatriation have any effect on current account of BoP because it is not recorded in the current account of BoP. Again the stock market started booming in the initial stage of 2009-10 and trend seems that it would go back to pre crisis levels. However the situation of uncertainty prevails at any time, in that occasion outflow would be many times higher than it were in the recent past.

### **3.6 Foreign Direct Investment and its effect on Balance of Payments**

Liberalisation of regulations relating to the inflow and terms of operation of foreign direct investment (FDI) was central to the economic reform of the 1990s. Since liberalisation, we are increasingly financing India's BoP with the FDI. It is expected that in the long run it would improve current account balance in India. We have seen in the earlier section, both inward FDI and outward FDI greatly increased in India and large outward FDI from India happened especially from 2003-04 onwards. Therefore we separately analysed the effect of inward and outward FDI on current account of BoP.

### 3.6.1 Inward FDI and its effects on Current account

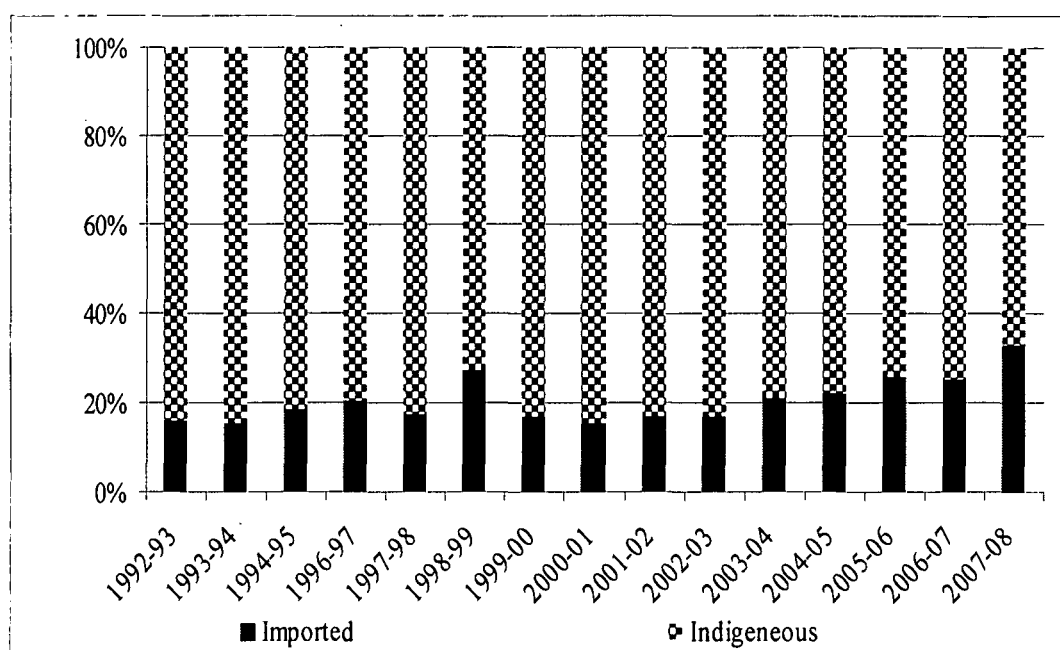
There is an expectation that FDI inflows or inward FDI would improve current account of BoP. This expectation is possibly through the way of the foreign exchange earnings by the firm, which received the FDI. However, during the last decades significant part of FDI come in the form of private equity and geared towards Brownfield projects rather than Greenfield investment (Reddy, 2008). Therefore the expectation of more foreign exchange earnings from these companies may not be materialized if more FDI are come in the form of private equity and Brownfield investment. Effect of FDI on current account can be divided into both direct and indirect. Direct effect consists of export and import of goods and services, dividend repatriation, royalty payment, professional fees, consultation fees, travel, technical fees and other foreign exchange earnings and spending in the current account. Foreign direct investment companies can conceivably increase the export propensity of domestic firm through spillover effects is one indirect effect of FDI on BoP. Further, if domestic production by multinationals for previously imported goods, FDI companies can reduce the total import bill. With the available data these indirect effects on current account is difficult to measure.

Hence we limit our analysis to the direct effects of FDI firms on current account of BoP. We have used RBI survey on FDI firms for measuring the direct effect on current account and survey is conducted by RBI in every year<sup>13</sup>. Along with measuring the direct contributions of FDI firms to current account, we calculated net foreign exchange earning rate of FDI companies. In addition to that we also measures contribution of FDI companies to India's trade account deficit.

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<sup>13</sup> The reserve Bank of India has periodically publishing figures on the finance of Foreign Direct Investment Companies (FDIC), or companies in which a single nonresident investor has 10 per cent or more shares, for different sets of years since 1990's. These firms are those, with the requisite foreign equity holding, included in the RBI's studies of the finance of a large sample of public and private limited companies. It must be mention that neither do these data sets amount to a comprehensive census of FDICs nor are they a consistent sample in the sense that firms covered remain the same in all years. However, varying sample of these firms, numbering between 321 to 502 in individual years between 1992-93 and 2007-08, shows predominantly engineering (30 to 135) and chemical (16 to 81). RBI didn't published the finance of FDI company survey in 1995-96 so we exclude those year from the analysis

### 3.6.1.1 FDI Firm's Contribution to Trade Account



**Figure 3.4: Sources of Raw materials, Components, Stores and Spares used by FDI companies**

(Values are in percentage share to the total)

Source: Computed from RBI survey on FDI firm (Various surveys)

Effect of FDI on trade flows depend upon where their investment is targeting? If the investment is targeting in home country's market, then we cannot expect that these FDI received firms would export more from our country. FDI firms can worsen the trade balance in India by way of large amount of import relative to export. With the available data it is not possible to measure the complete effect of FDI firm on trade account in India. However, RBI survey on FDI firm shows that, out of the total raw material, components, stores and spares, the share of imported element is increasing relative to the share of indigeneous part. Share of imported component in total shows an increasing trend from 1992-93 onwards and the trend lasted up to 1999-2000 period and again the share of import components is increasing after a decline in 1999-00( See Figure 3.4)

The share of imported components of FDI firm has increased to 32% in 2007-08 from 15% in 1992-93. Much of these increase in import is contributed by the import of raw materials which amounted 70% of the total import, whereas the share of capital goods is

hovering around 15% in the entire period (See Annexure 3.1). However, these high amount of imports will not pose any problem in trade account if they had sufficient amount of exports by these firms.

For measuring the effect of FDI firm on trade account, we calculated FDI firm's trade balance and then we exclude FDI firm trade balance from the total trade balance in India. Trade balance of FDI firm is the difference between their export and import. Trade balance of FDI firms is calculated with the use of RBI survey on Finance of foreign direct investment companies. Trade balance in India can be disaggregating into FDI trade balance and non FDI trade balance<sup>14</sup>. Therefore trade balance excluding FDI firms in below table is calculated by removing FDI firm's trade balance from the trade balance in India. Then we calculate percentage change between trade balance in India and trade balance in India excluding FDI firms. If FDI trade balance is negative in a particular year, percentage change (Column 5, Table 3.7) indicates that trade deficit in India in that year would have reduced to that much of percentage. Here in this calculation, FDI trade balance considered only the firms covered in RBI survey. For analytical clarity we assume all other FDI firms (FDI firms which are not in covered RBI survey) trade balance is equal to zero.

Trade balance of FDI firms<sup>15</sup> was negative in most of the years since 1992-93 and the trend of negative trade balance of FDI firms can be divided into two periods (See Table 3.7, Column 2). First period is started from 1994-95 and lasted up to 1999-00 and second period is started since 2003-04. However, significant worsening of FDI firm's trade balance happened in the second period where the negative trade balance of FDI firms rose even in the GDP terms. Trade deficit of FDI firms were only at -0.19% of GDP in 2004-05, but deficit significantly increased to -0.88% in 2007-08 (See Table 3.7). One could argue that increase in the number of sample of FDI firms in successive RBI surveys might be the reason for increase in the trade deficit of FDI firms. Nevertheless, it is observed that sample size of FDI firm is more or less same in recent period. But in 2006-07 sample size of FDI firm was 504 firms, but it reduced to 502 firms in 2007-08 survey.

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<sup>14</sup> Trade balance in India = Trade balance of FDI firms + Non FDI trade balance

<sup>15</sup> Trade balance of FDI firms = Export of FDI firm – Import of FDI firm and In this trade balance is considered only the FDI firms in the RBI survey

**Table 3.7: Contribution of FDI firms to Trade account balance in India**

Years (1)	2)Trade balance of FDI firms		3)Trade balance in India		4)Trade balance in India excluding FDI firm		5) Percentage change (between column 3 and 4)
	Amount (Rs Crore)	% of GDP	Amount (Rs Crore)	% of GDP	Amount (Rs Crore)	% of GDP	
1992-93	513	0.07	-17239	-2.29	-17752	-2.36	2.98
1993-94	1226	0.14	-12723	-1.47	-13949	-1.61	9.64
1994-95	-198	-0.02	-28419	-2.80	-28221	-2.78	0.70
1996-97	-3036	-0.22	-52561	-3.81	-49525	-3.59	5.78
1997-98	-474	-0.03	-57805	-3.79	-57331	-3.75	0.82
1998-99	-787	-0.04	-55478	-3.17	-54691	-3.12	1.42
1999-00	-757	-0.04	-77359	-3.96	-76602	-3.92	0.98
2000-01	1568	0.07	-56737	-2.70	-58305	-2.77	2.76
2001-02	227	0.01	-54955	-2.41	-55182	-2.42	0.41
2002-03	2524	0.10	-51697	-2.11	-54221	-2.21	4.88
2003-04	441	0.02	-63386	-2.30	-63827	-2.32	0.70
2004-05	-5946	-0.19	-151765	-4.82	-145819	-4.63	3.92
2005-06	-10930	-0.30	-229664	-6.40	-218734	-6.10	4.76
2006-07	-29869	-0.72	-279962	-6.78	-250093	-6.06	10.67
2007-08	-41540	-0.88	-368532	-7.80	-326992	-6.92	11.27

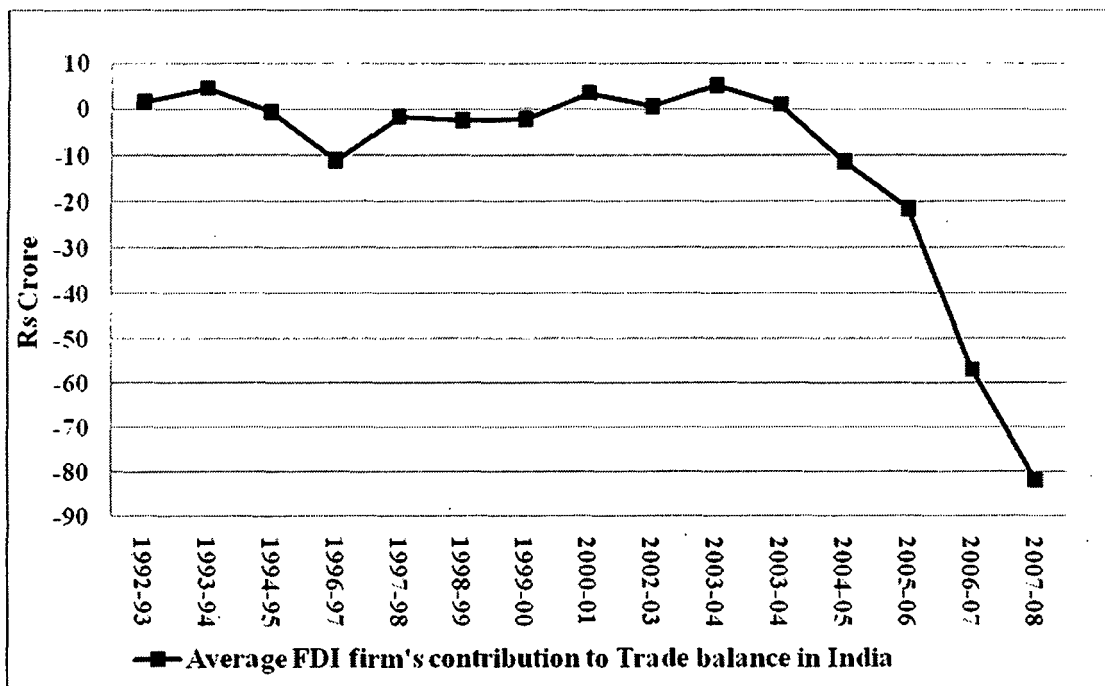
Source: Computed from RBI survey on FDI firm (Various surveys), RBI, *Database on Indian Economy*

Note: **Column 2:** Trade balance of FDI firms = Export of FDI firms – Import of FDI firms. Here we consider only firms in 'RBI survey on finance of FDI firms', **Column 3:** Trade balance in India from RBI Balance of Payment table, **Column 4:** Trade balance excluding FDI firms = [(Export of India - Export of FDI firms) – (Import of India – import of FDI firms)], **Column 5:** Percentage change indicate the percentage change between Trade balance in India and trade balance in India excluding FDI firms

Our counter factual analysis shows that in the recent years, trade deficit in India would have been significantly reduced, if we exclude these FDI firm's trade balance from it. Considerable reduction in the Indian trade balance would have happened particularly during the last periods (2003-04 to 2007-08) where the FDI firm's trade deficit was very high. For instance trade deficit in India was at -7.8% of GDP in 2007-08. Suppose if we leave out FDI trade balance from the total trade balance, trade deficit in India could have reduced to -6.92% in that year. In 2007-08 percentage change between trade balance in India and trade balance excluding FDI firms is 11.27% (Table 3.7 column 5). That means trade deficit in India would have been reduced to its size of 11.27% in 2007-08, if we

leave out FDI firm trade balance from it. To be precise, we could argue that 11.27% of trade deficit in India during 2007-08 is contributed by FDI firms covered in the RBI survey, where as in the 2006-07 they accounted 10.67% of trade deficit.

RBI survey of FDI firms is a sample survey and numbers of samples in each survey increasing since 1992-93. Hence, one could expect that increase in the number of FDI firms in the consecutive surveys might be one of the reasons for increase in the trade deficit of FDI firms. For avoiding the probable effect of increase in the number of sample of firm on trade deficit of FDI firms here we calculated average FDI firm contribution to trade balance. Increases in the samples have any effect on increase in the trade deficit of FDI firms because average negative contribution is increasing in post 2004-05 periods even with increase in the number of samples. Average firm's contribution to trade balance was only at Rs -10 Crore in 2004-05, but it increased to more than Rs -80 Crore in 2007-08 (See Figure 3.6)



**Figure 3.6: Average FDI firms Contribution to Trade balance in India**  
*Source: Computed from RBI survey on FDI firm (Various surveys)*

### 3.6.1.2 Net Foreign Exchange Earnings of FDI firms

There is a widely accepted view among the academicians and a policy maker is that FDI firms would positively contribute to current account of a country. In the earlier section we have already seen that for the last few years, FDI firms contributed to trade deficit in India. We use two indicators for measuring complete effect of FDI companies on current account: namely net foreign exchange earnings and its earning rate and both are calculated with the RBI survey on FDI firms. Net foreign exchange earning is the absolute contribution from FDI companies to current account. But this indicator is not showing inter temporal change. For understanding inter temporal contribution of FDI companies to current account, we calculated Net foreign exchange earning rate and used following method to calculate.

$$NFEER = \frac{(FEE - FES)}{(FEE \times 100)}$$

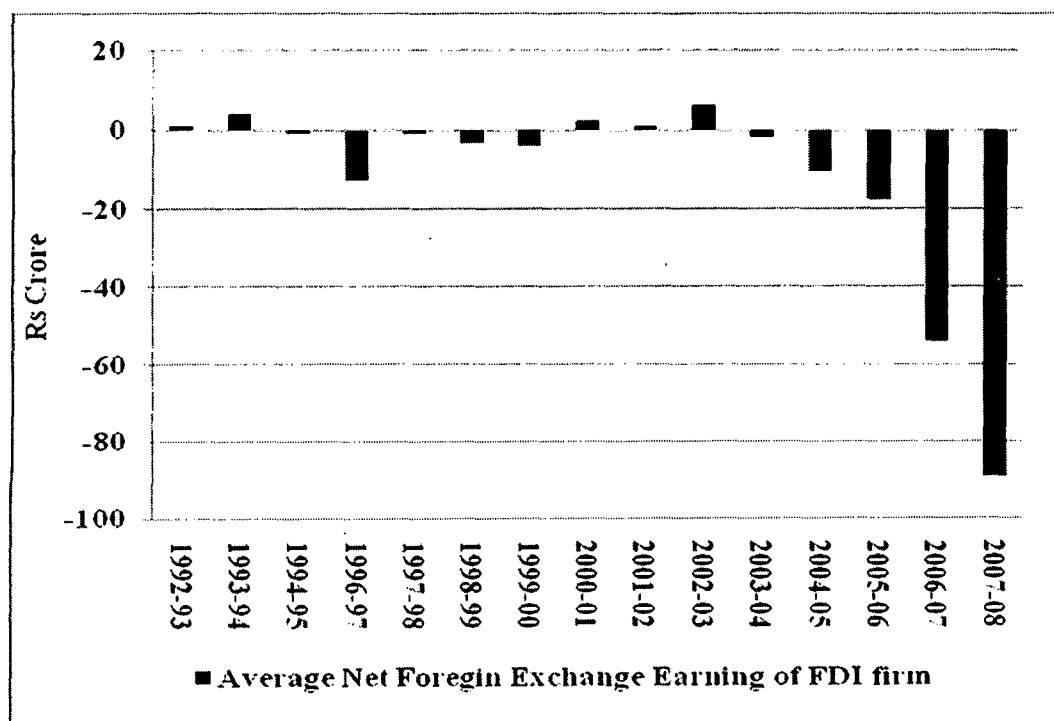
Where, NFEER = Net Foreign Exchange Earning Rate, FEE = Foreign Exchange Earning, FES = Foreign Exchange Spending

**Table 3.8: Net Foreign Exchange Earning Rate of FDI firm**  
(values are in Rs Crores)

Years	Net Foreign Exchange Earning of FDI firms	Net Foreign Exchange Earning Rate
1992-93	309	9.40
1993-94	1144	26.80
1994-95	-215	-6.90
1996-97	-3403	-72.52
1997-98	-254	-4.67
1998-99	-1065	-18.06
1999-00	-1331	-17.24
2000-01	1069	8.87
2001-02	468	4.43
2002-03	3026	20.37
2003-04	-817	-4.18
2004-05	-5370	-27.39
2005-06	-8846	-26.29
2006-07	-28263	-38.67
2007-08	-44894	-58.47

Source: Computed from RBI survey on FDI firm (Various surveys)

As opposed to the expectation, net foreign exchange earnings of FDI firms was found to be negative in two periods (See Table 3.8). First period is started from 1992-93 and lasted up to 1999-2000 and the second period is started since 2003-04. In the first period, the net foreign exchange earnings and net foreign exchange earning rate was actually fluctuating and not showing any trend. But in the second period negative net foreign exchange of FDI firms absolutely increased from Rs -817 crores in 2003-04 to -44,894 crores in 2007-08 (See Table 3.8). Net foreign exchange earning rate is also negative and the rate of increase also increased in the last period. For instance, in 2003-04 net foreign exchanges earning rate was only at -4.18% and it increased to -58.47% in 2007-08. Net foreign exchange and net foreign exchange earning rate can increase due to increase in the number of samples. For checking this, we calculated average net foreign exchange earnings of FDI firm. Average net foreign exchange earnings is calculated through total net foreign exchange earning in each year divided by number of firms in successive RBI survey.



**Figure 3.6: Average Net Foreign Exchange Earnings of FDI firm (Values are Rs crores)**

*Source: Computed from RBI survey on FDI firm (Various surveys)*



Average net foreign exchange earnings of FDI firm shows that increase in the number of samples in successive surveys have any effect on or it is not the reason for increase in the net foreign exchange earnings and its rate of increase. This is because, for instance in 2004-05, average net foreign exchange contribution of FDI firms was only at -10 Crore, but since then it is increasing and it reached very high at -90 Crores in 2007-08 (See Figure 3.6). Thus it is clear that FDI firms negatively contribute to current account for the last few years especially from 2003-04 onwards and rate of increase in negative contribution was also increased during the same period.

Therefore available evidence hardly shows any evidence of strengthening BoP because of inward FDI; rather FDI firms are creating additional strain on current account of BoP particularly in the recent period. Moreover we have seen that FDI firm have the significant contribution to trade account deficit in India especially after 2003-04. However government does not have the significant regulations to with regard to this problem of trade imbalance of FDI firms. In India, up to 2000 we had some regulations with regarding dividend balancing and indirect export obligations were existed for selected industries, after that these regulation were completely eliminated<sup>16</sup>. Our analysis confirms the fact that along with looking immediate inflow of FDI for financing current account deficit, close monitoring is also required the long term impact of these FDI received companies on BoP especially in current account. Net foreign exchange earnings of FDI firms is more important because in current liberalised environment there could be greater current payment of these firms mainly in the form of imported inputs, larger payment of royalties, technical fees and larger repatriation of profit as dividend. This is what happening in India, where FDI firm's contributed to trade account deficit in India from 2004-05 onwards. Therefore the issue of financing current account deficit with FDI should see in both short term as well in the long term view. Inflow of FDI helped to finance current account deficit, which can be termed as short run effect. But in the long

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<sup>16</sup> The dividend balancing and the related export obligation conditions on foreign investors which were existed before 2000 period and its applicable fewer than 22 consumer goods industries but it withdrawn after that (Kumar, N 2005)

run, evidence shows that FDI received firms creating additional strain on in the current account by way of negative net foreign exchange earnings.

### **3.6.2 Outward FDI and its effects on Current account**

In this section we are analysing the impact of FDI firms on Current account. Outward FDI from India clearly got accelerated from post 2003-04 period and most of these OFDI from India that period happened in the manufacturing sector (40.1%) and non-financial sector (20.9%)<sup>17</sup>. From 2000-01 onwards<sup>18</sup> like FDI, OFDI from India too comprises three components- equity capital, reinvested earnings (retained earnings of FDI companies) and other capital (inter-corporate debt transactions between related entities). Data on reinvested earnings for the latest year are estimated as average of the previous two years as these data are available only with a lag of one year. In the case of reinvested earnings, there would be a contra entry (debit) of equal magnitude under investment income in the current account. Other capital reported as part of FDI outflow has been carved out from ECBs by the same amount. A noteworthy feature is that the share of equity capital in the total OFDI has been increasing steadily from 60 percent during 2003-04 to nearly 80 percent during the year 2008-09. The other two components viz., reinvested earnings and other capital together accounted for only about 20 percent of the total OFDI from India. The fact that the outward capital flows from India are predominantly in the form of equity capital, especially when the country is resorting to foreign savings to finance its current account deficit, is quite intriguing. Thus it is worthwhile to assess the source of financing for this equity. Important problem here is to identifying the exact source of financing for equity capital. Relevant concern arises is, whether these financing for equities is happened from within India or from abroad. If OFDI domestically financed, definitely our current account deficit would increase through the worsening in the saving investment gap<sup>19</sup>. Nevertheless, available evidence

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<sup>17</sup> Calculated from Annual report of Reserve Bank of India (various years)

<sup>18</sup> In allying with international standard, definition of FDI in India has changed since 2000. From 2000-01, FDI consist of equity, reinvested earnings and other capital.

<sup>19</sup> For a macroeconomic Identity, current account deficit is equal to the difference between the domestic saving and investment in the economy. In equation,  $CAB = S - I$ , in which  $CAB =$  Current account balance,  $S =$  Domestic savings,  $I =$  Domestic investment)

hardly shows any worsening in saving and investment gap due to the increased OFDI from India, and this is mainly because of the fact that most of the source of financing for these equities are not from within India, rather it is borrowed from abroad and takes mainly in the form of External commercial borrowings (ECB), foreign currency convertible bond (FCCB), Special purpose vehicle (SPV), American depository receipts (ADR) and Global depository receipts (GDR) etc<sup>20</sup>. A substantial portion of equities capital financed through SPVs set up for the purpose abroad, as Indian firms are allowed to do so in international capital markets. Therefore it had not created any immediate or short run effect on current account deficit. Interestingly, increases in the outward FDI can make positive contribution to current account by way of dividend and profit earning from that overseas investment. Though, the dividend and profit from overseas investment have increased in recent period, but it is still a negligible amount in the investment income and thereby in current account<sup>21</sup>.

### 3.7 Conclusion

There has been an accepted view among the academicians and policy makers that, shift in BoP financing from debt to non debt flows is expected to remove the vulnerabilities in India's BoP. Due to the more dependence of non debt flows, cost of financing BoP is expected to be reduced in the liberalisation period. However the 'years of achievement' of financing BoP with foreign investment in post liberalisation period is mainly due to the contribution from FPI part of foreign investment.

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<sup>20</sup> Various evidences show that Special purpose vehicle (SPV) is the main source of financing for OFDI in India and other major sources of financing are External commercial borrowings (ECB), foreign currency convertible bond (FCCB), American depository receipts (ADR) and Global depository receipts (GDR). Some of the good examples of SPV deals are, Bhrathi Airtel has formed two SPV to execute its \$9 billion purchase of Zain telecom (Africa) in which \$5 billion routed through the Netherland entity and remaining through Singapore SPV. Tata acquired Corus with \$12.94 billion out of which is \$6.76 from SPV and remain raised through long term debt from outside India, IFGL Refractories (India) Acquisition of Hofmann Ceramic (Germany) for \$ 7 million through a SPV is the other main example of using SPV for financing OFDI. Tata acquired Telkey UK worth \$271 million out which \$45 million they raised through GDR and remaining amount they acquired through loan from outside. Nirma Ltd (India) acquired Searles Valley Minerals (US) funded through ECB issues of USD 20million

<sup>21</sup> Dividend and profit received by Indian on foreign investment was at 407 Rs Crore in 2004-05. Since then it is interesting and reach at 1852 Crore in 2008-09 (RBI, 2010)

As oppose to the expectation, financing BoP with foreign investment has exerted huge cost on BoP. For measuring the cost of financing BoP with non debt flows we looked for both FDI and FPI. Dividend and capital gain are found to be two cost of FPI on BoP, in which latter would considered as a cost in BoP only if it is repatriated from India. As oppose to dividend earning, FPI earns huge capital gain from India. For FPI, they are not only making huge capital gain from India, moreover there is significant evidence for repatriation. However capital gain and its repatriation would not affect current account of BoP. But capital gain and its repatriation would increase FPI out flows and therefore it would reduce capital account surplus and in turn it would reduce our foreign exchange reserves. Evidence shows that high capital gain of FII would create high FII outflows from especially at the time of uncertainty. When there is an uncertainty at the time of having high capital gain, they probably have the mentality to sell their share and if they do so, they would get more amount per share than it was purchased. Consequently, at the time of having high capital gain of FII, outflow would be more than expected. And this is what happened in 2008-09 financial year, due to global economic crisis FPI created \$ 15 billion worth net outflows.

Cost of financing BoP with FDI separately analysed for inward and outward FDI. In the case of inward FDI they are increasingly contributed to trade account deficit in India from 2003-04 onwards. Contribution to trade deficit from FDI companies reached high at 11.27% of deficit in 2007-08 (See Table 3.7). We calculated absolute net foreign exchange earnings and net foreign exchange earning rate for identifying the total effect of FDI companies (Inward FDI) on current account. Both the indicators are not only in negative but also increasing in the post 2003-04 periods (See Table 3.8). Rather than giving contribution to current account from FDI companies, available evidence suggest that they are providing negative contribution to current account mainly due to high import and lower export. In the case of outward FDI, study hardly found any effect of OFDI on current account of BoP. Most of the OFDI from India going in the form of equities and available evidence suggest that it had not create any current account deficit through the worsening in the saving investment gap because most of the equities are

financing from abroad. But these overseas investments can make positive contributions to current account in the form of dividend and profit. Evidence suggests that though profit and dividend has been increasing in India from overseas investment however it is still a negligible amount in current account.

### Annexure 3

**Annexure 3.1: Merchandise Imports of FDI firms in India**  
(Absolute values are in Rs Crore and percentage shares are in bracket)

Year	Imports	Capital goods	Raw material
1992-93	2441	382 (16)	1730 (71)
1993-94	2519	299 (12)	1864 (74)
1994-95	2829	374 (13)	2076 (73)
1996-97	6979	2638 (38)	3597 (52)
1997-98	4740	931 (20)	2933 (62)
1998-99	5759	690 (12)	3303 (57)
1999-00	6876	767 (11)	4072 (59)
2000-01	7864	714 (9)	5131 (65)
2001-02	7437	481 (6)	5341 (72)
2002-03	8799	675 (8)	6396 (73)
2003-04	15102	1650 (11)	10946 (72)
2004-05	20194	2959 (15)	14437 (71)
2005-06	32565	3528 (11)	25048 (77)
2006-07	84379	13183 (16)	61031 (72)
2007-08	94549	16410 (17)	69162 (73)

*Source: Computed from RBI survey on FDI firm (Various surveys)*

## Chapter 4

### Financing of Balance of Payments: The Role of Debt Creating Flows

#### 4.1 Introduction

Debt creating flows were increasingly used for financing BoP in India up to the liberalisation. During the pre-liberalisation period capital flows to India were mainly confined to official concessional finance. Along with official debt, private debt such as Non Resident Indian (NRI) deposit, External Commercial Borrowings (ECB), short term credits were prominent part of the net capital flows from the starting of 1980's. During the liberalisation period not only composition of net capital flows shifted to non debt flows, but also the composition within the debt flows have shifted from official to private debt flows. However, in the recent period, particularly from 2003-04 witness an increase in the private debt flows to India and in turn caused to increase the share of debt flows in the net capital flows between 2003-04 and 2007-08.

The main objective of the present chapter is to understand the role of debt flows for financing BoP during the liberalisation period. Chapter is organised into seven sections: - Section 4.2 provide an overview of debt flows in liberalisation period. Section 4.3 counter factually analyse years of India dependence of debt flows for financing BoP. Sections 4.4 discuss the resurgence of debt flows in post 2002-03 periods. Section 4.6 analyse the cost of borrowing of external assistance in detail and this section also compare the cost of external borrowing *vis-a-vis* domestic cost of borrowing and finally section 4.7 concludes main findings of the chapter.

#### 4.2 Overview of debt flows in liberalisation period

External assistance, External commercial borrowings (ECB), Trade credit and non repatriable component of Non resident deposit (NRI) constitute major portion of debt flows to India. Broadly, debt capital flows to India could be divided into three phases. First phase is the period from 1947 to 1980, second phase is 1980 to 1990 and third phase 1991 onwards. First phase is characterised as the multilateral and bilateral concessional loans were used as the sole source of financing BoP in India. During the second phase, India forced to attract costlier form of private debt flows such as ECB, short term debt and NRI deposit for financing BoP. This was mainly due to the shortages of official debt flows in relation to the huge current account deficit buildup in those periods (Reddy, 2006b). Third phase has started from 1991 and marked by two changes, firstly the composition of debt flows shifted away from official to

private debt<sup>1</sup> and secondly the focus of BoP financing shifted from debt to non debt flows. Share of debt flows was high at 83.3 % of net capital flows in 1990-91 (See Table 4.1). Since then, it is declined to -6.6% in 2003-04. But a slight resurgence of debt flows occurred thereafter. Between 2004-05 and 2007-08 share of debt flows were average at 44% of net capital flows, out of which external commercial borrowing and short term credit are the reason for increase in the share of debt flows. Concerned increase in the debt flows during the post 2003-04 periods would have significant effect on BoP, particularly in current account and it conditioned by cost of borrowing of these debts

At a disaggregated level, share of external assistance has declined from 31.2% of net capital flows in 1990-91 to incredibly low at 2% in 2007-08. On the other hand, in the recent period India has started extending assistance to other countries mainly in the form of grant and loan. The major beneficiaries of the assistance were Bhutan, Nepal and Srilanka and Pakistan (Mohan, 2008). As a result of BoP crisis, flow of commercial borrowing indicated a slow down, thereafter it raised significantly in the latter half of 1990 and it constitute around 30% of net capital flows to India in those periods. Towards the late 1990's and early 2000's the demand for ECB remains low due to host of factors such as global economic slowdown, lower domestic demand. The year 2003-04 onwards marked resumption in the flows of ECB to India. Net inflows under ECB increased from \$ 5194 in 2004-05 to exceptionally high at \$ 22,633 million in 2007-08 and again it got reduced to \$ 8158 in 2008-09 and it mainly due to the effect of global economic crisis. Short term credit to India is also high in the recent period and it increased immensely from 2003-04 onwards. In 2003-04, short term credit was very low at \$ 970 million. Since then, it is increasing and reaches very high at \$ 17,183 million in 2007-08

Except few years, the flows of NRI deposit have been stable during the last two decades and it manifests the result of conscious policy followed by the Reserve bank of India. However, in the pre reform period policy initiative were aimed at attracting nonresident deposit by offering a number of incentives including exchange guarantee and a higher rate of interest. Since 1991, such deposit has been streamlined by withdrawing the scheme with exchange guarantee, eliminating short term components in a phase to phase manner and the maturity structure of the NRI deposit also reversed to encourage long term deposit. NRI deposit with maturity less than one year was completely eliminated since April 2003 (Ministry of Finance, 2008a).

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<sup>1</sup> Details are there in the annexure 4.1

**Table 4.1: Share of Debt flows in the Total Net Capital Inflows to India**

	1990 -91	1991 -92	1992 -93	1993 -94	1994 -95	1995 -96	1996 -97	1997 -98	1998 -99	1999 -00	2000 -01	2001 -02	2002 -03	2003 -04	2004 -05	2005 -06	2006 -07	2007 -08	2008 -09
<b>Net capital flows (\$ millions)</b>	<b>7056</b>	<b>3915</b>	<b>3876</b>	<b>8894</b>	<b>8502</b>	<b>4089</b>	<b>12007</b>	<b>9844</b>	<b>8437</b>	<b>10444</b>	<b>8840</b>	<b>8551</b>	<b>10840</b>	<b>16736</b>	<b>28022</b>	<b>25470</b>	<b>45203</b>	<b>107993</b>	<b>9146</b>
of which (%)																			
<b>1) Non Debt Creating flows</b>	<b>1.5</b>	<b>3.4</b>	<b>14.4</b>	<b>47.6</b>	<b>56.5</b>	<b>117.5</b>	<b>51.3</b>	<b>54.8</b>	<b>28.6</b>	<b>49.7</b>	<b>56.6</b>	<b>95.2</b>	<b>55.5</b>	<b>93.7</b>	<b>54.6</b>	<b>84.0</b>	<b>65.8</b>	<b>58.9</b>	<b>231.0</b>
<b>2) Debt creating flows</b>	<b>83.3</b>	<b>77.4</b>	<b>39.9</b>	<b>22.1</b>	<b>25.0</b>	<b>57.7</b>	<b>61.7</b>	<b>52.4</b>	<b>54.2</b>	<b>23.3</b>	<b>69.3</b>	<b>12.4</b>	<b>-12.3</b>	<b>-6.6</b>	<b>35.2</b>	<b>41.0</b>	<b>64.2</b>	<b>38.9</b>	<b>87.2</b>
a) External assistance	31	77	48	21	18	21	9	9	9	9	5	13	-29	-17	7	7	4	2	29
b) External Commercial Borrowings	32	37	-9	8	13	31	24	41	52	3	49	-19	-16	-17	19	10	36	21	89
c) Short term credits	15	-13	-28	-9	5	1	7	-1	-9	4	6	-9	9	8	14	15	15	16	-63
d) NRI deposit	22	7	52	14	2	27	28	11	11	15	26	32	27	22	-3	11	10	0	47
e) Rupee debt service	-17	-32	-23	-12	-12	-23	-6	-8	-10	-7	-7	-6	-4	-2	-1	-2	0	0	-1
<b>3) Other capital</b>	<b>15.2</b>	<b>19.3</b>	<b>45.8</b>	<b>31.1</b>	<b>17.1</b>	<b>-75.2</b>	<b>-13.0</b>	<b>-7.2</b>	<b>17.0</b>	<b>27.2</b>	<b>-25.9</b>	<b>-7.6</b>	<b>56.8</b>	<b>12.3</b>	<b>10.2</b>	<b>-25.0</b>	<b>-30.0</b>	<b>2.2</b>	<b>-218.2</b>
Total(1+2+3)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Compiled from Annual report of RBI (Various years)

Notes: Other capital includes leads and lags in export, banking capital excluding NRI deposit



### 4.3 Dependence on Debt Flows for Financing BoP in Liberalisation Period

Debt flows was the prominent source of financing BoP up to liberalisation period. Because of the buoyant availability of non debt flows, dependence of financing BoP with debt flows significantly reduced in the post liberalisation period. From 1990-91 onwards only five years India partially used the debt flows for financing BoP. In other words those five years India didn't get enough foreign investment for financing requirement. Among the five years, three years were happened in the beginning period of liberalisation and financed around average of 90% of current account deficit with debt flows. Dependence of debt flows for financing BoP also necessitated in years such as 1997-98 and 1998-99. This dependence is mainly occurred because of low net inflows of foreign investment due Asian economic crisis. Due to the severity of low net foreign investment in 1998-99, 42% of current account deficits is financed with debt flows.

**Table 4.2: Dependence on Debt Flows for Financing BoP in liberalisation<sup>2</sup>**

Year	Financing BoP with Debt Flows (%)
1990-91	98.9
1991-92	88.7
1992-93	84.2
1997-98	2.7
1998-99	42.7

*Source: Computed from RBI, Database on Indian Economy*

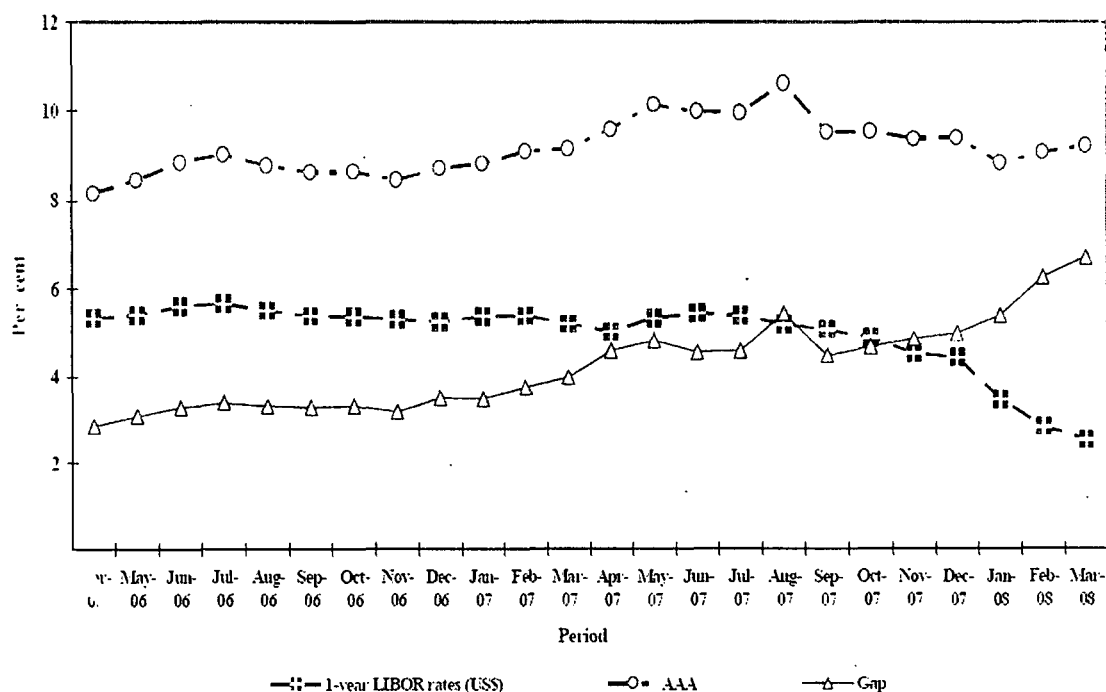
Ever since 2000, India has never depended on debt flows for financing BoP. But in 2008-09 India didn't get enough capital flows to finance current account deficit due to global economic crisis and therefore 75% of current account deficit is financed with foreign exchange reserve. Therefore in 2008-09 neither the debt nor non debt flows saves the situation from using foreign exchange reserve to finance current account deficit.

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<sup>2</sup> BoP can be financed with both debt and non debt flows. Dependence of debt flows for financing BoP means the gap of financing BoP with foreign investment and can be calculated by finding the percentage of net foreign investment in relation to current account deficit. If any year's value is less than 100, then there is a gap of financing with foreign investment.

#### 4.4 Resurgence of Debt Flows to India

Substantial increase in the External Commercial Borrowings (ECB) and short-term credit was the main the reason for increase in the share of debt flows since 2003-04. For instance, 74% debt capital flows in 2007-08 was jointly contributed by short term credit and external commercial borrowings. Government policy of liberalizing the debt flows along with high interest rate difference in India relative to other nations are the reason for large increase in debt flows. The increase in ECB since 2003-04 can be attributed to the larger borrowings from international capital market by Indian corporate sector encouraged by the persistence of interest rate wedge between domestic and international interest rates and it also reflect sustained domestic investment demand and import demand in India (Mohan,2008). London Inter Bank Offered Rate (LIBOR) used as a yardstick for world interest rate. Suppose if we take LIBOR rate as proxy for foreign interest rate and monthly yield rate of corporate debt paper as domestic interest rate shows not only an interest rate difference but concerned difference keeps on widening for the last few years (See Figure 4.1).



**Figure 4.1: Monthly Yield Rate on Corporate Debt papers (with AAA rating) for five year maturity and LIBOR rate**  
 Source: Ministry of Finance, (2008a)

End use is an important consideration of debt and it would influence repayment of debt. Using RBI data on External commercial borrowings, we classified external commercial borrowing on the basis of end use and the data is available from 2004-05

onwards<sup>3</sup>. Classification on the basis of end use of external commercial borrowing shows that, for the past four years, ECB were being used for productive purpose such as import of capital goods, project purpose and modernisation. On the other hand share of loan refinancing, rupee expenditure and working capital propose has been quite low. Table 4.4 shows that, along with project purpose and modernisation, import of capital goods are the important end use of external commercial borrowings in India. For all types of external commercial borrowings, minimum maturity ceiling has been fixed at three year so far. However during the course of time, evidence shows that government had not compromise anything on maturity of external commercial borrowings for increasing its inflows because the last four years maturity of all the ECB contacted in each year is more than the average five years (See Table 4.3).

**Table 4.3: Average Maturity of External Commercial Borrowings**  
(Values are in Years)

Year	Average Maturity
2004-05	5.95
2005-06	5.47
2006-07	5.81
2007-08	5.62
2008-09	6.53

*Source: Calculated from RBI data on External Commercial Borrowings*

**Table 4.4: End use of External Commercial Borrowings**  
(Values are in percentage share of each to the total ECB)

Year	Import of capital goods	Project purpose	Modernisation	Rupee expenditure	Loan refinancing	Working capital	Other	Total
2004-05	30	21	19	11	4	1	14	100
2005-06	18	19	25	4	20	0	13	100
2006-07	20	30	25	13	2	0	9	100
2007-08	35	19	10	4	4	0	30	100
2008-09	53	15	5	13	4	0	9	100

*Source: Calculated from RBI data on External commercial borrowings*

<sup>3</sup> We classified on the basis of major end use of external commercial borrowing and other categories include all the other end use which are not classified here.

On the other hand, increase in the short term credit in the last few years is trade generated and resulted from higher level of imports in those years, particularly oil imports (Ministry of Finance, 2009). As a result of high trade credit, short term debt in India increased for the past few years. At present short term debt in India include, NRI deposit with one year or less than one year maturity, trade credit with less than six month maturity, Foreign Institutional Investment in government treasury bills and other Treasury bill investment by international institution and foreign central bank. Short term debt in India absolutely increased from \$ 4.4 billion in 2004 to high at \$ 49.3 billion in 2009, out of which trade credit roughly constitutes 90% increase in the short term debt<sup>4</sup> (Table 4.5). RBI closely monitors the stock of short-term debt on an ongoing basis. Because of the prudential regulation generally no rollover of short-term credit is allowed beyond six month. Besides foreign exchange reserve coverage of short term debt greatly improved in the liberalisation period. For instance, the ratio of short term debt to foreign exchange reserve down from 146% in 1990-91 to 19.9 % in 2008-09. Conscious approach could also see in the case of NRI deposit, in which short term element in NRI deposit eliminated in phase to phase manner and revising the maturity structure of the deposit to encourage long-term deposit. NRI deposits with maturity year or less completely eliminated since April 2003.

**Table 4.5: Components of Short-term Debt in India**

(Absolute values are given in US millions \$, percentage share are given in brackets)

Year March end (1)	Short term debt (2)=(3+4+5+6)	NRI deposits (3)	Trade credit (4)	FII in Govt Treasury bills and other instruments (5)	Investment in treasury bills by foreign central bank and international institutions, etc (6)
2001	3628	957	2671(73.6)		
2004	4431	304	4127(93.1)		
2005	17723		16271(91.8)	1452	
2006	19539		19399(99.3)	140	
2007	28130		25979(92.4)	397	164
2008	46999		43162(91.8)	651	155
2009	49373		45975(93.1)	2065	105

Source: Ministry of Finance, (2009)

<sup>4</sup> The increase in the short term debt in the recent period could also attribute to the improvement in the coverage of short term debt. In the beginning of March 2005, coverage of short term debt has expanded to include all types of trade related credit with the maturity of six months to one year. Additional elements in the short term debt are namely, i) suppliers credit maturing in less than six months and ii) FII investment in treasury bills and other short term debt instruments having a maturity of year or less as a part of short term debt.

#### **4.5 Effect of Debt Flows on Balance of Payments**

With the large availability of non-debt flows, dependent of financing BoP with debt flows considerably reduced in post liberalisation period. In the liberalisation period there has not been much dependence on debt flows for BoP financing, however the existence of debt flows in capital account would generate future liability on the current account of BoP. Unlike non debt flows, debt flows have the fixed cost of amortisation and it would create future liabilities on current account through the payment of interest and principal. Repayment of debt particularly interest and principal would enter in the debit side of investment income account part of current account. Therefore debiting the repayment of interest and part of principal of debt in particular would increase that much of current account payment.

Maturity, interest rate, grant element and grace period are the four important features of debt which influence current account. For instance, higher the maturity of a debt, its effect on current account would spread over a long period, and it could avoid the short term worsening because of the spreading in the repayment of interest and principal. The high interest rate of debt would certainly generate high amount of interest payment in current account. Some of the debt flows might have high amount of grant element. It means grant part of debt is not required to pay any interest or that part of loan carry low amount of interest compared to the rest of debt. Therefore for higher amount of grant element would have reduced the amount of payment on debt in the future period. Grace period means period between loan amount received and payment of first installment. The sufficient grace period enable the debtor to repay the loan amount from earnings in project or investment. Higher the grace period, higher will be the lagged effect of debt flows on current account, which means repayment of debt will take place only after that stipulated time.

Here, four indicators are used for measuring the cost of borrowing of debt flows, namely average interest rate, average maturity, average grace period and average

grant element<sup>5</sup>. Simultaneously considering four indicators would help to measure the cost of borrowing of debt flows and thereby we can analyse the effect of debt flows on current account.

**Table 4.6: Average Interest Rate of Debt**

Years (1)	Average interest (%) (2)	Average interest, official (%) (3)	Average interest, private (%) (4)	Difference (5=3-4)
1970	2.5	2.2	6.3	-4.1
1980	5.4	2.5	14.0	-11.5
1990	5.4	3.9	6.8	-2.9
1991	5.8	4.2	9.4	-5.2
1992	5.0	3.4	7.1	-3.7
1993	5.9	4.0	7.9	-3.9
1994	3.9	3.5	7.0	-3.5
1995	3.9	3.5	5.7	-2.2
1996	4.6	3.8	5.8	-2.0
1997	5.0	3.6	6.7	-3.1
1998	3.2	3.6	3.2	0.4
1999	3.9	3.7	4.8	-1.1
2000	4.7	5.5	4.3	1.2
2001	3.6	3.5	5.4	-1.9
2002	2.3	2.2	2.5	-0.3
2003	1.9	1.5	3.4	-1.9
2004	2.6	2.1	3.6	-1.5
2005	3.5	3.4	3.5	-0.1
2006	4.0	3.8	4.4	-0.6
2007	5.2	3.6	7.2	-3.6

*Source: Computed from World Bank (2009a)*

In a strict sense, decrease in the average interest rate or increase in the maturity, grace period and grant element can be considered as decrease in the cost of borrowings. Decrease in the cost of borrowing would in turn reduce the effect of debt flows on

<sup>5</sup> These four indicators are available from Global development finance which is published by World Bank in every year. Definition of average interest rate represents the average interest rate on all loans contracted during the year. Grace period is the period from the date of signature of the loan or the issue of the financial instrument to the first repayment of principal. Average maturity indicates Maturity is the number of years to original maturity date, which is the sum of grace and repayment periods. Grace period for principal is the period from the date of signature of the loan or the issue of the financial instrument to the first repayment of principal. The repayment period is the period from the first to last repayment of principal, The grant element of a loan is the grant equivalent expressed as a percentage of the amount committed. The grant equivalent of a loan is its commitment (present) value, less the discounted present value of its contractual debt service; conventionally, future service payments are discounted at 10 percent. Commitments cover the total amount of loans for which contracts were signed in the year specified. To obtain the average, they did, the periods for loans have been weighted by the amounts of the loans.

current account. We have already seen that composition debt flows shifted from official to private debt flows subsequent to liberalisation. Therefore we separately analysed the relative cost of borrowing of private and official debt with the total cost of borrowing.

Interest rate of debt is the important indicator which influencing the cost of debt flows. Table 4.6 correctly highlights that except few years average interest rate of debt has been declining throughout the last two decades. Interest rate of debt was high at 5.8% in 1991. Since then it is declining and reaches low at 4% in 2006. Due to the world recession in 2007, average cost of external borrowing has increased in corresponding year as compared to pre crisis period (World Bank, 2009b). Therefore in 2007 average interest rate rises to 5.2% which is mainly contributed by the interest rate of private debt. The rate of interest of private debt increased to 7.2% in the corresponding year.

In the debt category wise, interest rate of official debt had been showing neither an increase nor decreasing trend and remained more or less stable throughout during the liberalisation period (See Table 4.6). Official debt mainly composed of loans from International Bank for Reconstruction and Development (IBRD) and Asian Development Bank (ADB) and the loans these agencies are carrying market rate of interest. Thus this could be the reason for having any change in the interest rate of official debt. On the other hand interest rate of private debt had been dramatically declining in liberalisation period. Reduction in the total interest rate of debt mainly contributed by interest rate of private debt (See Table 4.6). Interest rate for private debt was higher in 1980s, however in the post liberalisation period it is declined dramatically and showing a convergence of interest rate between official and private debt (Table 4.6, column 5). Interestingly, interest rate for official debt was slightly higher than private debt during 2000. However, private debt found costlier in 2007 because of the global liquidity crunch and it reach at 7.2% in that year.

In addition to interest rate, maturity is another important factor influencing the cost of debt. Having large maturity of debt would affect the current account only in the long run and hence it wouldn't create any worsening in the short run. Higher maturities also enable the debtor to repay the loan amount easily because he would get enough time to repay the loan amount. However there has not been much change in the maturity of debt for the last two decades and it kept more or less pattern in the liberalisation period (See Table 4.7). In the category wise, there hasn't been any change for the maturity of official debt where as the maturity of private debt has declined in the post 2000 period and regained its maturity in 2007 with an average of 10.2 years.

**Table 4.7: Average Maturity of Debt**

Year (1)	Average maturity (years) (2)	Average maturity, official (years) (3)	Average maturity, private (years) (4)	Difference (5) = ( 3-4)
1970	34.0	35.4	12.9	22.5
1980	32.4	40.0	10.7	29.3
1990	21.9	28.7	15.0	13.7
1991	20.3	25.8	8.0	17.8
1992	23.2	29.6	14.1	15.5
1993	19.1	26.6	11.5	15.1
1994	25.0	27.1	8.2	18.9
1995	22.6	26.7	5.9	20.8
1996	19.3	28.1	7.3	20.8
1997	19.5	27.1	10.4	16.7
1998	9.8	25.9	6.3	19.6
1999	23.2	26.7	3.4	23.3
2000	11.5	24.0	5.1	18.9
2001	23.7	24.5	3.7	20.8
2002	23.8	26.1	5.0	21.1
2003	21.3	26.0	5.5	20.5
2004	20.8	26.6	7.3	19.3
2005	19.1	26.6	5.1	21.5
2006	18.8	25.0	4.8	20.2
2007	19.2	27.1	10.2	16.9

*Source: Computed from World Bank (2009a)*

Grant element is the third important factor influencing the cost of debt. Grant element meant that part of loan not required any repayment or it given as gift. However the grant element of all the debt significantly improved in the liberalisation period. In the debt category wise, grant element is increased for both private and official debt. Grant element was only 3.5% for private debt in 1991 and it is increased to 27.5% in 2002 then it declined to 12.4% in 2007 (See Table 4.8).



**Table 4.8: Average Grant Element of Debt**

Year (1)	Average grant element (%) (2)	Average grant element, official (%) (3)	Average grant element, private (%) (4)	5) Difference (5) = (3-4)
1980	40.7	53.8	2.9	50.9
1990	33.9	49.1	18.9	30.2
1991	29.3	40.8	3.5	37.3
1992	33.6	50.9	9.0	41.9
1993	26.2	43.5	8.7	34.8
1994	45.5	49.9	10.9	39.0
1995	43.2	49.5	16.7	32.8
1996	34.7	48.4	16.2	32.2
1997	34.1	50.1	15.0	35.1
1998	31.2	49.6	27.2	22.4
1999	43.4	49.1	11.1	38.0
2000	25.6	33.5	21.5	12.0
2001	45.8	47.0	13.8	33.2
2002	54.8	58.1	27.5	30.6
2003	54.5	63.4	24.2	39.2
2004	49.2	58.8	26.8	32.0
2005	40.5	50.4	21.9	28.5
2006	39.2	47.8	19.4	28.4
2007	32.4	49.9	12.4	37.5

*Source: Computed from World Bank (2009a)*

Grace period is the last indicator used for measuring the cost of debt flows. Grace period means the period between loan amount received and payment of first installment. There has not been any change in grace period during the post liberalized period. Over the years, grace period showing more or less same pattern during the liberalisation period (See Table 4.9). Same trend could also be seen under the debt categories wise because grace period for both private and official debt flows is more or less over same period.

To sum up, cost of borrowing of external debt has been declined in post liberalised period. This is because of the drastic decline in the interest rate of debt simultaneously accompanied by a slight increase in maturity and grant element. But there has not been any change in the grace period. In the category wise decline in the cost of borrowing of private debt is higher compared to official debt. Therefore it is presumed that decline in the cost of borrowing of debt flows reduced the cost of financing BoP with debt flows.

**Table 4.9: Average Grace Period of Debt**

Year (1)	Average grace period (years) (2)	Average grace period, official (years) (3)	Average grace period, private (years) (4)	Difference (5) = (3-4)
1970	8.2	8.5	4.5	4.0
1980	7.2	8.3	4.0	4.3
1990	7.9	8.4	7.3	1.1
1991	6.8	7.4	5.3	2.1
1992	6.8	6.7	6.8	-0.1
1993	5.3	7.1	3.4	3.7
1994	8.0	8.5	3.6	4.9
1995	7.6	8.2	4.8	3.4
1996	6.7	8.2	4.6	3.6
1997	6.4	7.9	4.7	3.2
1998	5.6	7.4	5.1	2.3
1999	6.4	7.2	2.4	4.8
2000	5.4	6.6	4.8	1.8
2001	6.6	6.7	3.7	3.0
2002	7.1	7.5	4.7	2.8
2003	6.9	7.5	4.7	2.8
2004	6.1	6.7	4.8	1.9
2005	6.3	7.2	4.8	2.4
2006	5.6	6.5	3.6	2.9
2007	5.3	7.2	3.2	4.0

*Source: Computed from World Bank (2009a)*

The above analysis indicates that rate of interest has been declined in the liberalisation period. Interest rate is an important factor which determines the cost of borrowings. As the interest rate is not same for all categories of debt, thus we have to look at interest rate of debt at the disaggregated level. For this we used the effective interest rate or weighted average interest rate to measure the cost of different categories of debt. Weighted average interest rate in particular year is calculated by interest amount paid in that taken as percentage of total loan outstanding of the previous year. This method is adopted, because it is not possible to identify the interest rate for particular categories of debt, since the different loans in the each category being contracted out different interest rate. Hence, weighted average interest rate or effective interest would help to assess the cost of different categories of debt.

**Table 4.10: Weighted Average Interest Rate in Different Categories of Debt**

Years	Multilateral	Bilateral	External Commercial Borrowings	NRI deposit
1995-96	3.7	2.9	6.4	10.1
1996-97	3.4	2.9	6.2	14.8
1997-98	3.1	3.0	6.9	16.4
1998-99	3.0	3.0	6.6	13.8
1999-00	2.6	2.9	5.8	14.5
2000-01	2.5	2.7	6.1	12.3
2001-02	2.4	2.6	5.0	10.9
2002-03	2.4	3.0	4.0	8.2
2003-04	1.5	2.4	7.2	7.1
2004-05	1.3	2.5	3.7	4.3
2005-06	1.5	1.7	4.5	4.6
2006-07	1.6	1.9	5.3	5.4
2007-08	2.4	3.2	5.4	4.4
2008-09	1.6	2.7	3.8	3.5

*Source: Calculated from Ministry of Finance, (2009)*

Table 4.10 shows that weighted average interest for NRI deposit, multilateral assistance and external commercial borrowing was declining during the period of analysis. The weighted average interest rate for commercial borrowing and bilateral assistance is also declining but declining in the rate of interest for these debts were relatively less as compared to other capital flows (NRI and multilateral assistance). Declining in the weighted average interest of multilateral assistance found to be interesting because that portfolio consisted of high cost loans such as Asian Development Bank (ADB) and International Bank for Reconstruction and Development (IBRD) because loans from these agencies are carrying market rate of interest. Therefore we can insist that the decline in the weighted average interest rate of multilateral assistance could be mainly due to the International Development Association (IDA) loans as it which have lower rate of interest and also it have considerable maturity compared to other loans included in the multilateral segment. Decline in the weighted average interest on NRI deposit is highest among all forms of debt. For instance, weighted average interest for NRI deposit was higher than 10% up to 2002-03. But thereafter it dramatically declined and in 2008-09 it have only 3.5% interest rate. Reduction in the weighted average interest could be reflecting the success of government policies with regard to NRI deposit during in the past years and drastic reduction in the weighted average interest rate could be due to the

elimination of short term maturity deposits under category of NRI deposit. As a result of successive policies, debt servicing of NRI deposit became cheaper in the last decade as compare to the 1990's.

#### **4.6 External Assistance to India and Interest Bearing Loans**

External assistance has played significant role in the development process in India. However, unlike the past, now India has no longer reliant on external assistance for financing BoP. In donor wise, external assistance mainly composed of multilateral and bilateral assistance. In the recent period, International Development Association (IDA), International Bank for Reconstruction and Development (IBRD), Asian Development Bank (ADB) are the major donors of multilateral segment of external assistance where as Japan, United Kingdom (U.K), Germany, European Economic Community (EEC), United States of America (USA), Russian federation are main nations in which we have been receiving bilateral assistance (Ministry of finance, 2008b).

IDA, the soft loan affiliate of World Bank and carry lower rate of interest where as loan from IBRD and ADB are carrying market rate of interest therefore it is relatively costly. However borrowing from ADB and IBRD has been showing an increase in the recent period. The continuance of borrowing from ADB, IBRD assumes special importance from the possibility of India being kept out of IDA loans. IDA loans are extended only to low income countries. At present India though a low income country, is at the border line. Grant element component of assistance under multilateral agencies are low and it is very negligible for IBRD and ADB loans (See Annexure 4.2). On the other hand major part of bilateral assistance is getting from Japan and grant element part is low under this segment. In the recent period evidence shows that, even though the bilateral assistance from U.K, EEC and USA were lower, however, most of the assistance was received from these nations as grant. Grant element is also very higher for the bilateral assistance from Germany (See Annexure 4.3)

**Table 4.11: Weighted Average Interest of External Borrowings from Different Sources**

Source	2004-05	2005-06	2006-07	2007-08
ADB	3.76	4.49	6.28	6.85
IDA	0.87	0.79	0.82	0.8
IBRD	2.14	4.13	5.78	6.01
Russia	3.03	3.42	3.44	3.48
Germany	0.89	0.74	0.84	0.78
Japan	2.57	2.35	2.37	2.44
France	2.57	2.21	2.49	2.27
USA	2.88	2.89	2.92	3.1
Others	1.05	1.03	1.03	1.05

*Source: Ministry of Finance, (2008b)*

Weighted average interest rate for ADB and IBRD are not only very higher in the external assistance portfolio, but also the interest rate is increasing under the period of analysis (See Table 4.11). Moreover table 4.11 shows two things, firstly IDA loans found to be one of the low cost borrowing items in our external assistance portfolio. Secondly, cost of borrowing of bilateral assistance from Japan is very low as we compare with that of ADB and IBRD loans. Japan is the major bilateral donor to India and their weighted average interest rate is very low and follows more or less same interest rate throughout period of analysis. Crucial question here is why government has been increasingly borrowing high cost loans from ADB and IBRD.

#### **4.6.1 Relative Benefit of Domestic Borrowing vis-à-vis External Borrowing**

Loans from ABD and IBRD are carrying market rate of interest and therefore these are found to be high cost categories of loans in India's external debt portfolio. Though our external borrowing is composed of these high cost loans, but the total cost of external borrowing is still very low as we compare it with cost of domestic borrowing. This phenomenon is because of the existence of high interest rate in India relative to other nation; therefore cost of borrowing of from domestic very high in relation to external borrowings.

**Table 4.12: Comparative Analysis of Debt Service Liability on External and Domestic Borrowings (Values are in Rs Crores)**

Year	Total Outstanding of Internal borrowings <sup>6</sup>	Interest payment of Internal borrowings <sup>7</sup>	Weighted average Interest rate of Internal borrowings	Total outstanding of External borrowings	Interest payment of External borrowings	Weighted average Interest rate of External borrowings
1991-92	317714	17920	6.3	208724	8676	5.8
1992-93	359655	20418	6.4	275910	10657	5.1
1993-94	430623	25026	7.0	290743	11715	4.2
1994-95	487682	30923	7.2	310871	13137	4.5
1995-96	554983	35759	7.3	313525	14286	4.6
1996-97	621437	43759	7.9	331818	15719	5.0
1997-98	722962	48902	7.9	347606	16735	5.0
1998-99	834552	59030	8.2	407605	18852	5.4
1999-00	962592	70819	8.5	425800	19430	4.8
2000-01	1102596	78930	8.2	462902	20384	4.8
2001-02	1294862	86766	7.9	471401	20694	4.5
2002-03	1499589	99854	7.7	507734	17950	3.8
2003-04	1690554	103175	6.9	513027	20913	4.1
2004-05	1933544	113284	6.7	597468	13650	2.7
2005-06	2165902	109524	5.7	611563	23106	3.9
2006-07	2435880	125510	5.8	775871	24762	4.0
2007-08	2725395	144443	5.9	903704	26587	3.4
2008-09	3014441	162765	6.0	1055572	29929	3.3

*Source: Calculated from RBI (2009a), Ministry of Finance (2009)*

*Note: weighted interest rate of particular loan in year is nothing but the percentage share of interest amount paid with the total outstanding loan in the last year.*

Table 4.12 correctly highlight existence of cost difference between domestic and external borrowing, out of which cost of external borrowing stood at very lower compared to the cost of domestic borrowings. For instance weighted average interest rate for domestic borrowing was at 6% in 2008-09, but in the same years weighted average interest rate was only 3.3% for external borrowing. There was no much

<sup>6</sup> Total outstanding of internal borrowing consists of the total outstanding internal debt and other interest bearing liabilities. Internal debt consist of market loans and other medium and long term loans, treasury bills and special securities issued to national small saving fund where as other interest liabilities include insurance and pension fund, deposit of non Govt provident fund, reserve funds of commercial departments special securities to oil companies, FCI and others. From 2004-05 the provision for interest payment on borrowings under the market stabilization scheme (MSS), have been separately reflected in terms of MOU on MSS

<sup>7</sup> Interest payment of internal borrowings is calculated by subtracting interest payment of external borrowings from total interest payment

difference between the cost of borrowings of external and domestic borrowings in the beginning of liberalisation period, but since then cost of external borrowing dramatically declined where as domestic borrowing increasing very much in the observation period. Though cost of domestic borrowing has been declining in beginning period of liberalisation and it showed a large increase especially between 1998-99 and 2002-03. However, the post 2003 cost of domestic borrowing is declining, but as of now cost of domestic borrowing is very higher vis-à-vis external borrowings.

#### **4.7 Conclusion**

Existences of high cost of borrowing were one of main the reason for shifting in financing BoP away from debt flows. Even though the focus of BoP financing shifted away from debt flows however period between 1990-91 and 1999-2000, five years India partially relied on debt flows for financing BoP. After a reduction in the share of debt flows between 2001-02 and 2003-04, it again bears an important part of net capital flows since 2003-04.

The cost of borrowing of debt flows drastically reduced in the post liberalisation period. This is because fall in the interest rate of debt simultaneously accompanied by a slight increase in maturity and the grant element. But the grace period keeps almost same during the period of analysis. Therefore we can argue that reducing cost of borrowing have reduced the cost of financing BoP with debt flows. Increase in the private debt flows were the main reason for increase in debt flows during the liberalisation period. But the cost of borrowing of private debt falls very high relative to official debt. At a disaggregated level fall in cost of borrowing of NRI deposit is higher compared to other categories of debt such as multilateral, bilateral and external commercial borrowings.

Drastic increase in the short term credit and External Commercial Borrowings (ECB) are the reason for the large increase in the debt flows in the post 2003-04 periods. Unlike in the past, these debt flows were productively used because end use of ECB mainly concentrated on import of capital goods, project purpose and modernisation rather than used for loan refinancing, working capital and rupee expenditure. Increase in the short term credit is trade related and it is due to high import of Petroleum Oil

Lubricant (POL) product in the last few years. Even though there is a reduction in the total cost of borrowing of debt flows, however, some high cost loans are still existed in India's debt portfolio. ADB and IBRD loans are fall under these categories because these loans are carrying market rate of interest. Weighted average interest rates for these loans are increasing for the last few years. At the same time when we compare the total cost of external borrowing with domestic borrowing latter is higher than the former, even with the presence of high cost loans like ADB and IBRD.



## Annexure 4

### Annexure 4.1

**Share of outstanding official and private creditor in the total debt outstanding**  
(Values are in percentage share of each category to total)

End- March	Official creditors	Private creditors
1998	58.1	41.9
1999	56	44
2000	56.2	43.8
2001	51.2	48.8
2002	51.8	48.2
2003	48.3	51.7
2004	45.2	54.8
2005	39.3	60.7
2006	37.3	62.7
2007	31.8	68.2
2008	27.8	72.2
2009	27.4	72.6

*Source: Ministry of Finance, (2009)*

### Annexure 4.2: Multilateral Assistance Received from Major Donors

(Absolute values are in Rs crores, values in the parenthesis indicate the percentage share of loan and grant element)

Donor/ Years	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
IDA	4871 (99.53/0.43)	5782 (99.22/0.78)	4303 (99.41/0.59)	4178 (99.37/0.63)	4632 (99.23/0.57)	5363 (99.81/0.19)	4306 (99.65/0.35)
IBRD	3376 (95.82/4.18)	3636 (98.01/1.99)	3250 (98.48/1.52)	4087 (98.67/1.32)	3725 (99.07/0.92)	4200 (99.23/0.77)	4439 (99.66/0.34)
ADB	2145 (100/0.0)	1914 (100/0.0)	2588 (100/0.0)	2745 (100/0.0)	2149 (100/0.0)	2682 (99.96/0.04)	4060 (97.37/2.63)
<b>Total</b>	10541 (97.80/2.20)	11530 (98.0/2.00)	10338 (96.87/3.13)	11138 (98.65/1.35)	10681 (98.08/1.92)	12466 (98.28/1.72)	13221 (96.15/3.84)

Source: Ministry of Finance, (2008b)

Note: Total denotes Total Multilateral Assistance

### Annexure 4.3: Bilateral Donors

(Absolute values are in crores, values in the parenthesis indicate the percentage share of loan and grant element)

Donor/ years	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Japan	2729.8 (99.4/0.6)	3728.9 (100/0)	3328.9 (99.7/0.3)	3277.7 (99.8/0.1)	2971.18 (98/2)	2710.36 (97.92/2.08)	2097.62 (98.28/1.72)
U.K	307.3 (0/100)	808.4 (0/100)	778.7 (0/100)	1279.94 (0/100)	1506.93 (0/100)	1371.94 (0/100)	1310.32 (0/100)
Germany	386.7 (82.5/17.5)	444.7 (65.9/34.1)	381.16 (50.83/49.17)	333.41 (59.21/40.79)	121.18 (14.87/85.12)	188.24 (18.25/81.75)	278.32 (36.48/63.52)
EEC	36.28 (0/100)	181.9 (0/100)	326.03 (0/100)	147.54 (0/100)	426.31 (0/100)	820.51 (0/100)	397.88(0/100)
USA	81.11 (0/100)	66.18 (0/100)	49.86 (0/100)	110.56 (0/100)	80.17(0/100)	52.66(0/100)	44.56 (0/100)
Russia	130.09 (100/0)	23.03 (100/0)	316.06 (100/0)	771.71 (100/0)	1194.82 (100/0)	1106.83 (100/0)	1404.41 (100/0)
<b>Total</b>	3866.18 (83.5/16.5)	5624.8 (72.4/27.6)	5399.46 (71.94/28.06)	6218.05 (68.97/31.03)	6446.38 (64.84/35.05)	6309.14 (60.52/39.48)	5531.26 (64.60/35.40)

Source: Ministry of Finance, (2008b)

Note: Total denotes Total Bilateral Assistance

## Chapter 5

### Summary of Findings and Conclusions

Balance of payments accounting is considered as *sine-qua-non* for efficient economic management of a country. Having a stable BoP situation is a prerequisite for any economy in the current globalised world. During the period between independence and liberalisation, India faced BoP problems in almost all the years. But India faced a severe BoP problem in 1991, essentially a financing problem, and contributed by financing a higher current account deficit with highly volatile debt flows and forced the country to liberalize the economy. In response to the crisis, the government appointed a high level committee for reforming the BoP under the chairmanship of C. Rangarajan. The committee made two recommendations with regard to financing BoP. First, current account deficit must be minimised and second, financing BoP must shift from debt flows to non debt creating flows. Stability and cost of financing BoP are the two factors preferring non debt flows over debt flows. In the case of cost involved in BoP financing, debt flows would generate a fixed cost of amortisation while non debt flows need to be serviced only after the profits are made. Nevertheless the current account deficit has been minimised and financing BoP almost shifted in favour of non debt flows following liberalisation period. Thus it is assumed that financing BoP more with non debt flows would have reduced the cost of financing BoP during the post liberalisation period. In addition to that, foreign investment is expected to strengthen India's BoP by way of additional foreign exchange earnings possibly through exports of goods and services especially from the firms which receive the FDI.

Foreign investment or non debt flows increased considerably in the post liberalisation period. But a large part of Foreign investment contributed by FPI which normally do not have any qualities of FDI. During the post liberalisation period, both inward and outward FDI have increased. OFDI got accelerated from 2003-04 and it would had serious repercussions on the BoP if it was financed from within India. If OFDI is domestically financed it would increase current account deficit through widening the gap of domestic saving investment. However increased OFDI can make positive contribution to current account possibly through the dividend and profit earning from the firms which received the OFDI. On the other hand, private debt flows to India

significantly increased from 2003-04 and it in turn increased even the share of debt flows under the same period. It would have serious repercussion on BoP and it conditioned by the cost of borrowings of for these debts. The Global economic crisis that occurred in the latter half of the last decades made BoP management as a difficult task in 2008-09 and the troubled situation reinforced the concern of financing BoP in the liberalisation period. Due to massive capital outflow, 75 per cent of current account deficit was being necessitated exceptional financing and we financed it with foreign exchange reserve. Although it was a short term adverse situation, but the problem of financing BoP in 2008-09 fiscal seemed almost like a difficult situation in 1991. Given this scenario detailed examination is needed to understand discernible changes occurred in the BoP financing under liberalisation period. Moreover a close look is also needed to understand the efficacy of both debt and non debt flows as a financing instruments in BoP.

The study has two objectives. The first objective is to analyse how the current account is financed in the post liberalisation period. The second objective is to analyse the BoP financing in terms of debt and non debt capital flows during the post liberalisation period.

The first objective is analysed in the second chapter and which looks specifically at how the current account deficit is minimised in the post liberalisation period. The second objective is analysed in the third and fourth chapters. The issue of BoP financing with non debt flows analysed in the third chapter, where as the fourth chapter analysed the Balance of Payment financing with debt flows.

The minimisation of the current account deficit is a prerequisite for the efficient BoP financing. It is observed that Current account deficit has minimised in the liberalisation period. However this study shows that current account deficit would have squeezed further if we have taken care of some aspects in the current account in the liberalisation period. Detailed examination of domestic saving investment provided a clear macro understanding of current account of the country. It highlights the fact that spillover of public sector deficit to current account deficit significantly reduced in the post liberalisation period. Therefore current account deficit during the post liberalisation period increasingly contributed by private sector of the economy.

Thus it is expected that it would not create much problem in future<sup>1</sup>. At a further disaggregated level, from 2003-04 onwards saving investment gap in the economy is increasingly contributed by private corporate sector in the economy and there by the reason for current account deficit under the same period. In case of private corporate sector, both the saving and investment shows a drastic increase in the post 2003-04 period, however rate of increase in investment is high relative to saving. Interestingly, it is therefore important to understand the sector wise contribution to investment. Industry wise disaggregated data highlight that, in the recent period (Post 2003-04 onwards) manufacturing sector was main contributor to the total investment (Gross Capital Formation) in the economy, hence manufacturing can be considered as the main responsible sector for having high investment and there could be the reason for saving investment gap and current account deficit in the economy.

An account wise disaggregation highlights the fact that minimisation of current account deficit during the post liberalisation period is not because of the reduction in trade deficit. Rather trade deficit has increased in the liberalisation period and the reduction in the current account deficit is mainly due to increase in invisible balance. In other words, trade deficit being financed with invisibles is higher in liberalisation period. Buoyant software exports along with the huge private transfers were the major contributor to invisible balance and it helped to minimize the current account deficit and thereby reduce amount needed for BoP financing. In the trade account there was a structural shift happened in the export and import basket under the principal commodities section. Both the growth of export and import are high in the liberalisation period, but relatively higher import was the main factor for trade deficit in India. In which export and import marked a real increase, i.e. volume is increasing very high relative to value increase. Increase in the amount of Petroleum Oil Lubricant (POL) import was the main reason for increasing merchandise import and thereby the reason for increase in trade deficit (See Table 2.5). Apparently, special imports such as gold and silver, defense are other main reasons for increase in the merchandise import in India. Increase in the non DGCI&S import (RBI import minus DGCI&S import) considered as a main supportive evidence for defense import to India. On the other hand Non DGCI&S export (RBI export minus DGCI&S export)

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<sup>1</sup> The Pitchford Thesis states that a current account deficit does not matter if it is driven by the private sector. This theory has held true for the Australian economy, which has had a persistent current account deficit, yet has experienced economic growth for the past 18 years (1991-2009).

not found to be higher in post liberalisation period (See Figure 2.3). As a result of heavy defense import, India became the second largest arms importer in the world between 2004 and 2008 (SIPRI, 2009). In the case of Gold and silver import, if we leave out these import from India's trade balance, it would not only reduce trade deficit, moreover it would also have made current account surplus between 1998-99 and 2007-08 period (See Table 2.5). It means that we could argue that India is unreasonably making deficit in the current account by allowing massive gold and silver import. Even in the year of Global economic crisis, gold and silver import was enormous. Due to the high current account deficit and low capital account surplus, 75 per cent of current account deficit forced to meet from foreign exchange reserves. If there was no gold and silver import, current account deficit would have reduced from 2.49 per cent of GDP to 0.87 percent of in 2008-09. This would have reduced the problem of financing BoP because in the same year we have received the net capital flows worth 0.60 per cent of GDP.

Income account is one of the main components of current account and it is functioned as a connecting factor between current and capital account. Influence of income account on current account deficit has continuously declined in post liberalisation period. Given the compensation of employees, shift in the Balance of Payment financing to non-debt flows and the earnings from foreign exchange reserve are the main factors for improving income account.

There has been an accepted view among the academicians and policy makers that, shift in the financing BoP from debt to non debt flows is expected to remove the vulnerabilities in India's BoP. Due to the more dependence of non debt flows, cost of financing BoP is expected to be reduced in the liberalisation period. However, the 'years of achievement' of financing BoP with foreign investment in post liberalisation period is mainly due to the contribution from FPI form of foreign investment.

As opposed to the expectation, financing BoP with foreign investment has exerted huge cost on BoP. Cost of BoP financing is calculated separately for both FDI and FPI. Dividend and capital gain are found to be two cost of FPI on BoP, in which latter would considered as a cost in BoP only if it is repatriated from India. As oppose to dividend earning, FPI earns huge capital gain from India. In the case of FPI, they are not only making huge capital gain, but also there is significant evidence for

repatriation. However capital gain and its repatriation would not affect current account of BoP. But capital gain and its repatriation would increase FPI out flows and therefore it would reduce capital account surplus and thereby it would reduce our foreign exchange reserves. Evidence shows that high capital gain of FII would create high FII outflows especially at the time of uncertainty.

However in the case of FDI part of non debt flows, cost of financing BoP with FDI separately analysed for inward and outward FDI. In the case of inward FDI they are increasingly contributed to trade account deficit in India from 2003-04 onwards. In 2007-08, contribution FDI companies to India's trade deficit reached high at 11.27% of deficit (See Table 3.7). Study used two indicators namely net foreign exchange earnings and net foreign exchange earning rate for measuring the total effect of FDI companies (Inward FDI) on current account. Both the indicators are not only in negative but also shows high increase in the post 2003-04 periods (See Table 3.8). Rather than giving contribution to current account, available evidence shows that FDI companies are giving negative contribution to current account mainly due to high import and lower export. In the case of outward FDI, study hardly found any effect of OFDI on current account of BoP. Most of the OFDI from India going in the form of equities and available evidence suggest that it had not create any current account deficit through the worsening in the saving investment gap because most of the part of equities are financing from abroad. But these overseas investments can make positive contributions to current account in the form of dividend and profit. Evidence suggests that though profit and dividend from overseas investment have increased, it is still a negligible portion in the in the current account.

Due to the buoyant availability of non debt flows, dependence of financing BoP with debt flows significantly reduced in the post liberalisation period. Existence of high cost of borrowing was one of main the reason for shifting in financing BoP away from debt flows. Even though the focus of BoP financing shifted away from debt flows, however period between 1990-91 and 1999-2000, five years partially relied on debt flows for financing BoP. After a reduction in the share of debt capital flows between 2001-02 and 2003-04, it again bears an important part of net capital flows between 2003-04 and 2007-08.

However, the cost of borrowing of debt flows drastically reduced in the post liberalisation period. This is because of a fall in the interest rate of debt was simultaneously accompanied by a slight increase in maturity and grant element while grace period remains same in liberalisation period. Therefore we can argue that, due to the reduction in cost of borrowing, cost of financing BoP with debt flows have reduced in post liberalisation period. The increase in the private debt flows were the main reason for increase debt flows in liberalisation period. But the cost of borrowing of private debt falls very high relative to official debt. At a further disaggregated level, fall in cost of borrowing of NRI deposit is very high compare to other categories of debt such as multilateral, bilateral and external commercial borrowings.

Drastic increase in the short term credit and External Commercial Borrowings (ECB) are the reason for the large increase in the debt flows in the post 2003-04 periods. Nevertheless, unlike in the past, these debts are productively used. End use of ECB mainly concentrated on import of capital goods, project purpose and modernization where as the loan refinancing, uses for working capital, rupee expenditure are relatively low. In the case of short term credit, entire short term credit is trade related and large in increase was mainly due to the high Petroleum Oil and Lubricant (POL) imports in the last few years. Even though there was a reduction in the total cost of borrowing, however, some high cost loans are still existed in India's debt portfolio. ADB and IBRD loans are fall under these categories because these loans are carrying market rate of interest. Weighted average interest rates for the loans from these agencies are increasing for the last few years (See Table 4.11). Even though the presence these high cost loans in debt portfolios, but when we compare the total cost of external borrowing with domestic cost of borrowings, latter is very higher than the former

To conclude, study had found out that during the post liberalisation period India used more non debt flows for financing BoP<sup>2</sup>. In cumulative term, from 1990-91 to 2007-08 non debt flows contributed 52% of total net capital flows where as debt flows contributed 40% and remaining 8% is contributed by other capital. Under the non debt categories, FPI contributed 28% of total net capital flows but FDI contributed only

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<sup>2</sup> We exclude 2008-09 year in this calculation because capital account abnormally negative in that particular year



23%. But the year to year variation is very higher for FPI as compared to FDI. However, available evidence shows that cost of BoP financing with non debt flows greatly increased in the liberalisation period. On the other hand various indicators shows that cost of BoP financing with debt flows continuously reduced in post liberalised period.

### **5.1 Policy Recommendations**

In the light of the result, study proposes the need for a detailed policy recommendation for non debt flows. Along with the policy of attracting foreign investment, policies are required to improve its benefit under the BoP. Policies are required to monitor the operation of foreign investment in India after its arrival, particularly the operation of foreign direct investment companies in India. Study identified FDI companies are contributing to trade deficit in India since 2003-04. Moreover, the study also found the evidence for negative contribution to current account from FDI companies and this is mainly because of the trade imbalance of FDI firms. Therefore the special policies are needed to step up their export along with the import. Immediate policies are required to dampen huge portfolio investment to India because they are not only creating instability in BoP but also they are exerting huge cost to BoP through capital gain repatriation.

Owing to high invisible balance, the current account deficit has minimised in the liberalisation period. But due consideration also needed in the case of trade deficit in India. Increase in the POL import was the main reason for increase trade deficit in India. Effect of increase in the oil import on trade account can reduce by increase in the refined petroleum product export from India. Refined petroleum export from India has increased in the last decades but it is still very negligible in relation to POL import. Thus the policy initiatives are required to step up the export of refined petroleum product from India. Along with these policies, policies are also required to step down the import of gold and silver, defense import are necessitating factor for reducing trade deficit in India.

### **5.2 Scope for further Research**

Exchange rate is an important factor which can have influence on financing BoP. But the study does not much discuss on the influence of exchange rate on BoP financing

and therefore it is a major area of research in Indian context. Study found out that FDI companies contributed to trade deficit in India and also found negative contribution from these companies to current account. Due to data limitation study has not able to measure the contribution of FDI companies on current account deficit and thus further studies are required to understand the complete effect of FDI companies on current account. Increase in the gold and silver import is one of the reasons for increase in the trade deficit. But the study has not attempted to answer why there has been an increase in the gold and silver import to India. Thus further study is also needed to understand the gold economy in India especially its determinants and factors of import in the post liberalisation period.

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