

**VULNERABILITY EFFECTS OF EXTERNAL COMMERCIAL
BORROWING: A STUDY OF SELECTED INDIAN
COMPANIES**

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In partial fulfilment of the requirements
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MASTER OF PHILOSOPHY

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CERTIFICATE

Certified that the dissertation entitled “THE VULNERABILITY EFFECTS OF EXTERNAL COMMERCIAL BORROWING: A STUDY OF SELECTED INDIAN COMPANIES” submitted by Somnath Patra in partial fulfillment for the award of the degree of Master of Philosophy (M.Phil) of this University is his original work and may be placed before the examiners for evaluation. This dissertation has not been submitted for the award of any other degree of this University or of any other University.

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CONTENTS

1. Introduction.....	1-8
2. The Shift away from Traditional External Assistance towards External Commercial Borrowing.....	9-16
2.1 The reasons behind the shift towards External Commercial Borrowing.....	9-16
2.2 The Literature on Foreign Currency Borrowing.....	12-13
2.3 The Factors influencing External Commercial Borrowing.....	13-16
3. The Norms and Regulations of External Commercial Borrowing.....	17-28
3.1 The Rules of External Commercial Borrowing.....	17-25
3.2 The Profile of the External Commercial Borrowing Companies.....	26-28
4. Data Analysis.....	29-59
4.1 The Foreign Exchange Earning Capability of the Companies.....	29-42
4.2 The Orientation of the Companies.....	43-44
4.3 Checking Vulnerability of the Companies.....	45-59
5. Conclusion.....	60-61
Bibliography.....	62-63

LISTS OF TABLES:

1.1 Rupee Debt.....	2
1.2 Data on Current account, Capital account and External Commercial Borrowing.....	3
2.1 LIBOR Rates within and over 5 years of maturity and Prime Lending Rates.....	16
3.1 Sector Wise Composition of ECB Borrowers in Percentage.....	27
3.2 Composition of ECB in Manufacturing Sector.....	28
4.1 Exports, Net Exports and Net Foreign Exchange earnings of ECB companies.....	30
4.2 ECB of intersection companies, Disbursements of ECB to India and ECB of intersection companies as a % of Disbursements to India.....	31
4.3 Net Foreign Exchange Earnings of intersection companies.....	33-38
4.4 Net foreign Exchange Earnings of all ECB companies, Chemicals Sector and Machinery Sector.....	39
4.5 Company wise Net Foreign Exchange Earnings of Machinery Sector.....	40-41
4.6 Export to Sales Ratio of ECB and Non-ECB companies.....	43
4.7 Exchange Rates and LIBOR Rates over the years and their changes by 10%.....	48
4.8 Tests of Vulnerability in case of Fixed Interest Rate and Change in Exchange Rate.....	49-51
4.9 Tests of Vulnerability in case of Flexible Interest Rate and Change in Exchange Rate.....	54-56
4.10 Tests of Vulnerability in case of Flexible Interest Rate and Change in Exchange Rate.....	57-59

LISTS OF FIGURES:

1.1 Disbursements of ECB over the years.....	6
1.2 Net ECB compared to Net Capital Flows.....	6
1.3 Net ECB as a % of Net Capital Flows.....	7
1.4 Debt due to ECB as a % of Long Term Debt.....	8
1.5 Debt due to ECB as a % of Total Debt.....	8

CHAPTER-1

Introduction

For the past few years, there has been an upsurge in capital flows and 'External Commercial Borrowing' (ECB) has been an important constituent of these flows. Particularly over the past three four years, there has been a remarkable increase in the disbursements of ECB (figure-1). ECB increased steadily since the financial year 2003-04 and in financial year 2007-08 it increased by almost 10 million dollars compared to the previous financial year or by almost double to that in the financial year 2005-06. The initial years of 2000s had experienced a bit low ECB (the financial years of 2001-02 to 2003-04). Recently over the years the net increase in ECB has kept parity with the increase in net capital flows (figure-2). The picture becomes more vividly clear when we see the net increase in ECB as a percentage increase in net capital flows (figure-3). In the financial years 2001-02, 2002-03 and 2003-04, we see that net ECB as a percentage to net capital flows were negative. Actually in these financial years the net ECB were actually negative and this implies that outflows were more than the inflows. Though disbursements in these years were low compared to the other financial years, yet the outflows in the form of amortization and interest payments were more than the inflows making the net ECB negative. From the above discussion it is quite clear that ECB is becoming an important part of the capital flows. This does push us to go forward to study about the ECB.

But the issue which really instigates to have a careful study is something like this. External debt of our country has been rising. Recently for the past few years total debt as a percentage to Gross Domestic Product (GDP) has been around 15%-20%, which really gives the impetus to know about the external debt caused due to the long term capital flows and ECB in particular. The components of the External debt are:-

- i) Multilateral debt- It includes a) Government and b) Non- Government borrowing.
- ii) Bilateral debt- It also includes a) Government and b) Non-Government borrowing.
- iii) IMF debt- It includes the debt to the International Monetary Fund.¹

¹ The debt owed to the IMF was completely paid off by the financial year 2000-01, since then the component was off no relevance.

- iv) Trade Credit Debt- It includes the a) Buyer's credit, b) Supplier's credit c) Export credit of bilateral credit and d) Export credit for defense purposes.
- v) Commercial Borrowing- It includes a) Commercial bank loans b) Securitised borrowing including FCCBs (Foreign Currency Convertible Bonds) c) Loans and Securitised borrowing with multilateral and bilateral guarantee and IFC and d) Self Liquidating loans
- vi) NRI (Non-Resident Indians) deposits debt
- vii) Rupee debt
- viii) Short term debt

The total Long Term Debt is the sum of the points mentioned above from i) to vii) and adding viii) gives the total external debt. For the past couple of years the debt due to ECB vis-à-vis long term debt has been around 30%-35%. This necessarily shows that the debt due to ECB has also been a major contributor to the debt incurred in the form of long term loans (figure-4). Even looking at this debt due to ECB vis-à-vis the total debt also shows that it has contributed quite significantly to the total debt (figure-5). This really gives some insight that the other components of the capital flows have not been so significant as far as external debt is concerned.

TABLE-1.1

Rupee Debt

Years	Rupee debt in million dollars		
	Defence	Civillian	Total
2007-08	1,794	222	2,016
2006-07	1,723	224	1,947
2005-06	1,819	240	2,059
2004-05	2,031	270	2,301
2003-04	2,427	294	2,721
2002-03	2,515	307	2,822
2001-02	2,712	330	3,042
2000-01	3,339	380	3,719

Data Source: RBI

The component, Rupee Debt had a consistent contribution to the external debt. But the rupee debt of the Defence sector, over the financial years was very high as compared to the debt of the civilian sector. The rupee debts of the civilian sector has been around 200 to 300 billion dollars and has not been so significant compared to the Defence sector's debt.

TABLE-1.2

Data on Current account, Capital account and External Commercial Borrowing

Years	CURRENT ACCOUNT (\$ millions)			CAPITAL ACCOUNT (\$ millions)			EXTERNAL COMMERCIAL BORROWING (\$ millions)	
	Credit	Debit	Net (\$ millions)	Credit	Debit	Net (\$ millions)	Net ECB (\$ millions)	Disbursements (\$millions)
2007-08	314767	331801	-17034	428740	320709	108031	22165	30376
2006-07	243446	253011	-9565	232242	186463	45779	16155	20883
2005-06	194839	204741	-9902	144376	118906	25470	2508	14343
2004-05	154739	157209	-2470	98539	70517	28022	5194	9084
2003-04	119793	105710	14,083	75,885	59,149	16,736	-2925	5228
2002-03	95699	89354	6345	46368	35528	10840	-2344	2737
2001-02	81440	78040	3400	43257	34706	8551	-1576	3,125
2000-01	77719	80385	-2666	54126	45286	8840	3737	9,324

Data Source: RBI

Looking at the data post 2000, we find that India has been experiencing current account deficit since the financial year 2004-05 although it experienced current account surplus in the financial years 2001-02 to 2003-04. The reason behind the country experiencing current account surpluses in these financial years is that the net positive balances of the Invisibles more than compensating the deficit in the merchandise trade. Moreover like other financial years, these years also experienced net merchandise trade to be negative but the absolute value of the net merchandise trade has been quite low. So the current account balances in the balance of payments were positive. Even financial year 2000-01 was characterised by a current account deficit and the deficit was around 2.6 billion dollars. The current account deficit since the financial year 2004-05 has been quite significant. It was around 10 billion dollars in 2005-06 and 2006-07. In 2007-08 it suddenly jumped to an amount of 17 billion dollars. But the capital inflows was so huge that inspite of the significant outflow, it resulted in a large positive balance in the capital account to take care off the current account deficit. So the overall balance of payments was positive. This picture of huge capital inflows taking care of the current account deficit is same with that of the other financial years. But the capital inflow in 2007-08 has been a huge one; it was around 428 billion dollars which was double to that of the previous financial year, 2006-07.

But in these financial years when there was current account deficit, the disbursements of the external commercial borrowing were also very high. In other words the disbursements were so high that it could have alone taken care of the current account deficit. The disbursement in 2007-08 was around 30 billion dollars and current account deficit was around 17 billion dollars. In these years when India experienced the current account deficit, the disbursements of the ECB were almost double to that of the current account deficit. Even the financial year 2000-01 was no exception in this respect. Moreover the net ECB was also so high that it could have even taken care of the current account deficit. The net ECB in the financial years 2006-07 and 2007-08 were around 16 and 22 billion dollars respectively.

So for the past few years the current account deficit is on the rise. The debt due to long term capital flows has been more or less 80% of the total external debt and the debt due to ECB constitute around 30-35% of the total long term debt. And as we have discussed earlier, the country in recent years has borrowed more than it requires for balance of payments' balance. On the backdrop of this, we are going to address the following issues in this paper

- 1) Are the companies generating enough of foreign exchange earning to keep up the future commitments in the form of amortization and interest payments?
- 2) Are these companies actively involved in trade?
- 3) Stress Test- If we take some companies and observe what will be the condition of the companies if there is exchange rate fluctuation and the fluctuation in interest rate (LIBOR rate)

For pursuing our objectives, we will rely on the data published by Centre for Monitoring Indian Economy (CMIE) and Reserve Bank of India (RBI). But there is an issue which we need to be clear off regarding the lists of the companies. CMIE has a database of 255 companies as far as companies which are availing ECB is concerned. Now RBI publishes ECB data on monthly basis, so it has the lists of companies which have done ECB since the financial year 2004-05. In a month, there are on average some 50 companies which are borrowing from overseas market. So RBI has the lists of some 600-700 companies in a given financial year which have availed ECB from external market. To fulfill our

objectives we need to look at the other variables of the companies and for those variables we had to rely on the data published by CMIE. So we have matched the companies of the CMIE's database with that of the RBI's database and have taken their corresponding borrowing amounts from the RBI's database. There are some 40-50 companies which belong to the intersection of the two databases in every financial year. As the RBI's company wise data of ECB is from the financial year 2004-05, so the data of the intersection companies is also from the financial year 2004-05. However, these were the years when there was upsurge in ECB before the crisis broke out and our period of concern. The other variables, like the export of goods and services, other component of foreign exchange earnings and spending of these intersection companies have been taken from the CMIE database. So we have 3 types of databases which we will be using in this dissertation

- I) The companies in the RBI database
- II) The companies in the CMIE database
- III) The intersection companies of the two databases.

Chapter Plan and the Objectives:

This dissertation primarily attempts to explain the debt servicing capability of the companies in terms of foreign currency since they need to repay back in foreign currency.

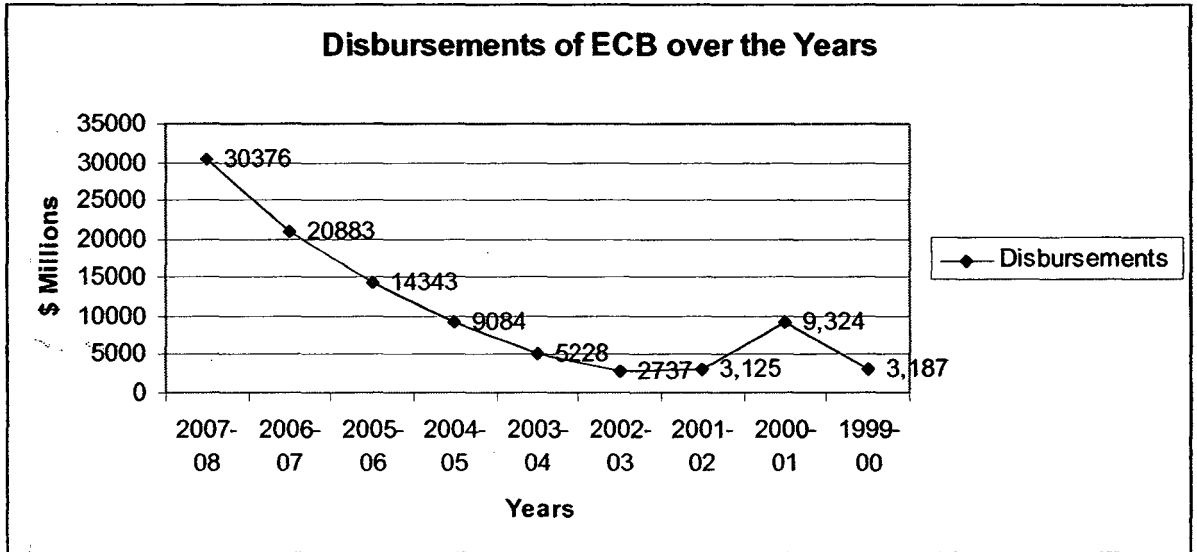
In chapter-2, we shall focus on the reasons behind India's shifting to external commercial borrowing from the traditional external assistance. The chapter also includes a brief literature on foreign currency borrowing and the possible factors that influence the external commercial borrowing.

The chapter 3 is about the norms and regulations regarding ECB and the profile of the ECB borrowers.

In chapter-4 we will explore our above mentioned objectives in three different sections.

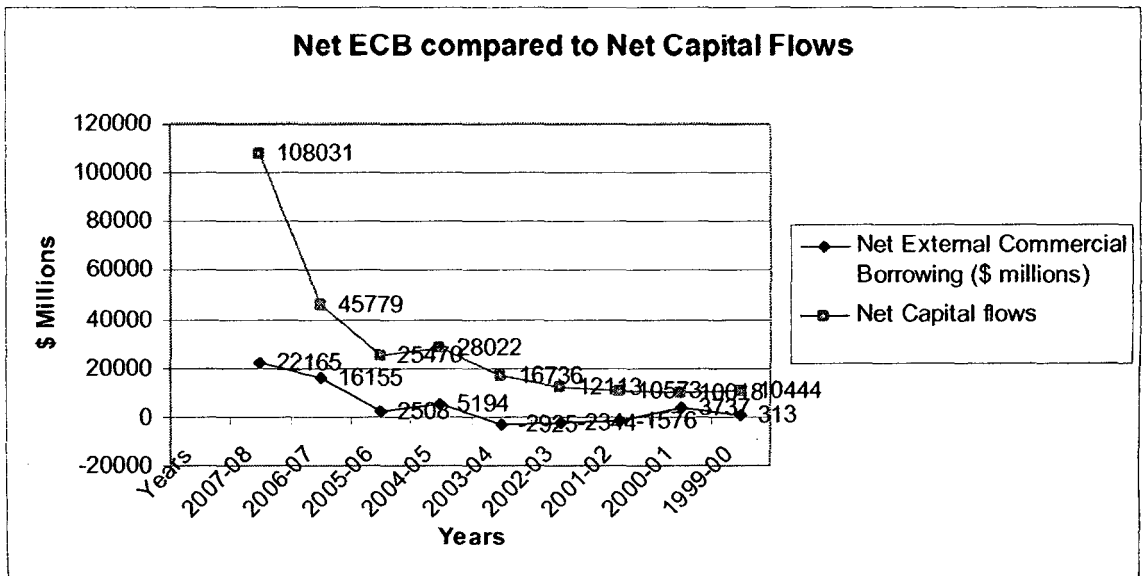
Lastly, there is a brief conclusion which summarises the analyses and the inferences

Figure-1.1
Disbursements of ECB over the years



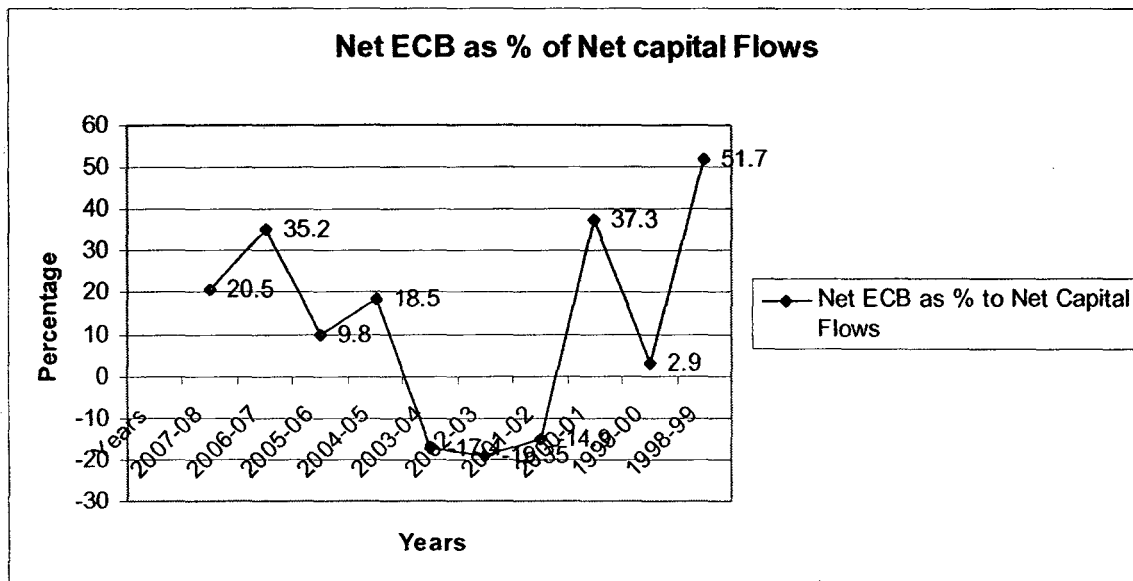
Data Source: RBI

Figure-1.2
Net ECB compared to Net Capital Flows



Data Source: RBI

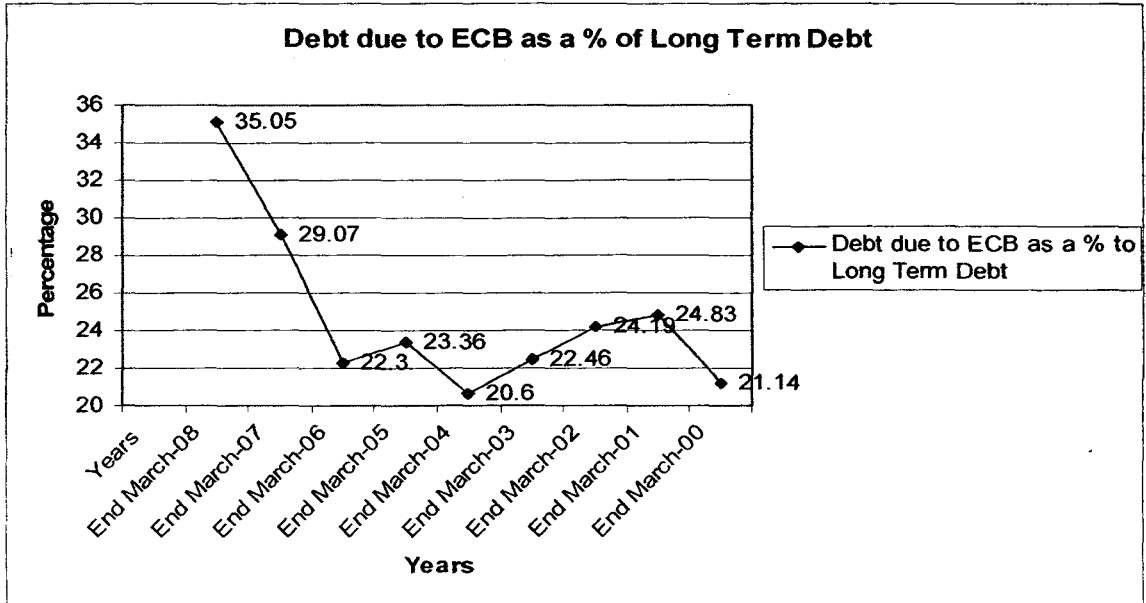
Figure-1.3
Net ECB as a % of Net Capital Flows



Data Source: RBI

Figure-1.4

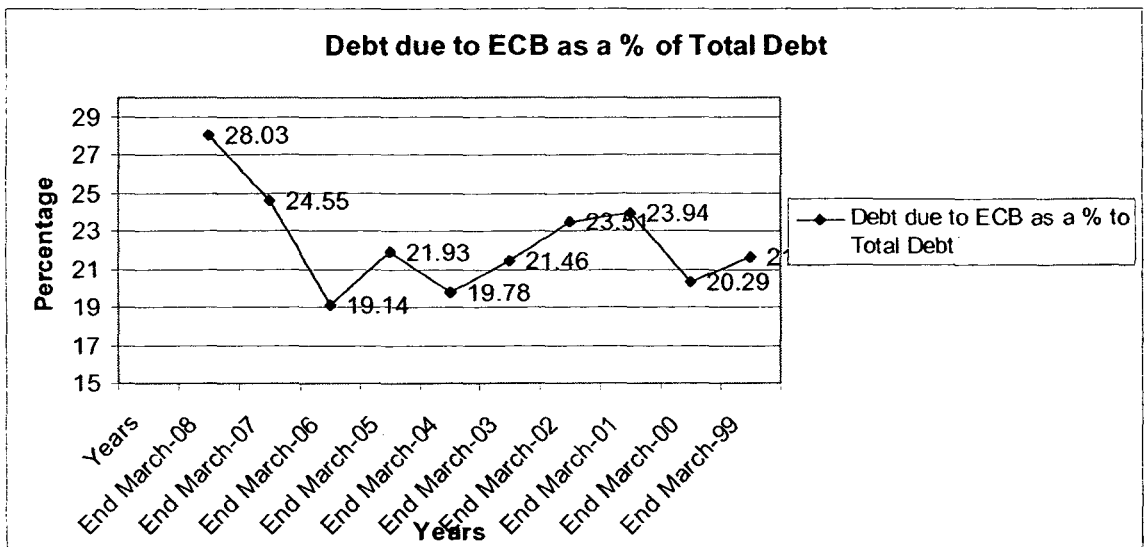
Debt due to ECB as a % of Long Term Debt



Data Source: RBI

Figure-1.5

Debt due to ECB as a % of Total Debt



Data Source: RBI

Chapter-2

The Shift away from Traditional External Assistance towards External Commercial Borrowing

2.1 The Shift towards External Commercial Borrowing

After the reform measures in 1990s, capital flows to India have undergone a change from official and private debt flows to non debt creating flows. Capital flows to an economy is seen to be beneficial, but capital flows well above the current account deficit of the country creates a serious problem for the economy. As far as external flows is concerned it can be divided into three broad phases (RBI Bulletin, 2008) – a) Starting from the 1947 to early 1980s, India's reliance was mainly restricted to multilateral and bilateral concessional finance. b) During 1980s when the current account deficit started widening, the external sources i.e. the multilateral and the bilateral assistance were found to be inadequate. The external commercial loans emerged as the next best possible option. It increased along with the short term borrowings and deposits from non-resident Indians which resulted in increase of India's total external debt. This was the shift towards the private capital flows from the official flows. c) The initiation of the reform process after the balance of payment crisis of 1991.

There were many measures which were undertaken. The important ones are – a compositional shift in capital flows away from debt to non-debt creating flows, strict regulation of external commercial borrowings, especially short term debt, discouraging volatile element of flows from non-resident Indians and gradual liberalization of outflows. As far as ECB is concerned, ceilings have been imposed on approvals and a careful monitoring of the costs of raising funds as well as their end use.

The Indian corporates started accessing ECBs in the early 1970s but it remained modest due to the dominance of concessional, non-market based finance in the form of external assistance from bilateral sources and multilateral agencies. In the 1980s when it was recognized that reliance on external assistance was not favourable and with the rising of the external financing requirements, commercial borrowing from international markets were preferred. The commercial borrowing was around 27% of the net capital flows to India in the 1980s compared to 12% in the 1970s (Singh, 2007). Commercial borrowing did experience some slow down in the aftermath of the balance of payment crisis due to

the downgrading of the sovereign rating by the credit rating agencies. But it rose significantly in the latter half of the 1990s responding to the strong domestic investment demand, favourable global liquidity conditions and upliftment of the grading by the credit rating agencies (RBI Bulletin, 2008). During this period it constituted around 30% of the net capital flows. Towards the late 1990s and early 2000s, the demand for the ECBs remained low due to a number of factors- global economic slowdown, reversal of a rising phase of capital flows to developing countries (RBI Bulletin, 2008). The demand of ECBs again started rising from the year 2003-04 and the noticeable change is from the financial year 2004-05.

In the initial years of planning, the country relied on bilateral sources of funding. Till the Third Plan, the loans from Multilateral sources – The International Bank For Reconstruction and Development (IBRD) and International Development Agency (IDA) constituted only 19% of the total assistance whereas Bilateral assistance constituted the remaining 81%. The dominance of Multilateral sources began after 1970s (Government of India, 2008). By 1994 the external assistance from Bilateral and Multilateral sources had declined to 20% and fell below 5% by the late 90s (Khanna, 2002). After 1992, official capital flows were replaced by private capital flows and a rise in private capital flows were observed (Kohli, 2001). Even the World capital flows in the nineties have shown a sharp decline in official capital flows and an increase in private capital flows (Kohli, 2001). Thus India also experienced the same declining trend in official flows along with the world wide trend which was observed around this period.

During 1980s, there was a significant development and it was the hardening of the World Bank's IBRD-IDA blend proportion. There are countries where the bank lends a combination of "hard" and "soft" funds. The IBRD/IDA blend proportion are based on an assessment that such countries are borrowing as much as is appropriate on hard terms each year which is consistent with their long term debt servicing capacity. Now this blend proportion has been increased from 25:75 to 70:30 in 1989 (Government of India, 2008). Moreover the terms of IDA assistance also became stiffer after 1987 and the credits were available with a lesser maturity period of 35 years as compared to the earlier 50 years (Government of India, 2008). These were really a matter of concern looking at the country's requirements of external assistance for investment needs. By this it is quite

clear that the reliance on external assistance was becoming feebler through the 70s and 80s. The corporates chose this path of external commercial borrowing as ECB was emerging as a good option.

As far as domestic policy on external assistance is concerned, the Third plan emphasized on self reliance and focused on reducing the reliance on special forms of external assistance (Government of India, 2008). The private corporate sector found it much difficult to raise funds from banks as the real interest rates were much higher. Real interest rates were 6-9% in 1990s as compared to 1-2% in 1980s (Khanna, 1999)

Posts 1990s, there was a huge increase in private foreign capital after the liberalization. The experience is similar and the composition of the flows conforms to the evidence with other developing countries (Kohli, 2001). In the literature there are two broad explanations- (Kohli, 2001)

- i) The fall in the US interest rate between 1989-92 combined with the cyclical recession with US, Japan and many parts of Europe pushed the world capital to developing countries in search of higher return.
- ii) The role of internal or pull factors such as credible economic reforms, improved macroeconomic performance and domestic policies that encouraged investor confidence and attracted foreign investment. The currency alignment has been cited as another internal stimulus for capital inflows.

But the reasons vary across the Latin America and Asia. The external factors have been more important for Latin America whereas the internal factors were more important for the Asian countries. As far as India is concerned the inflow of private capital flows was part of the global trend (Kohli, 2001). "Though it is inappropriate to interpret trends in interest differential without allowing for expectations regarding exchange rate changes, the relatively high differential rate of return on Indian assets may have played a role in attracting foreign capital after opening of the financial markets" (Kohli, 2001, p- 6) The recovery of the output growth and improved macroeconomic performances – improved the credit rating of the country and restored investors' confidence (Kohli, 2001). There was a fall in inflation rate and restructuring of the external debt was done which had an impact on the investors' confidence (Kohli, 2001).

As we have mentioned earlier, during the years of BOP crisis the ECB did experience a slump but it resumed thereafter. The Indian corporates' access in the international capital market increased with the liberalization of external borrowing policy, gradual withdrawal of capital account and improved credit rating (Singh, 2007).

Our focus has been the credit accessed in the form of external commercial borrowing and this is done in foreign currency. So here is a brief literature on foreign currency borrowing. This literature specifically focuses on foreign currency borrowing done by the private entities.

2.2 The Literature on Foreign Currency borrowing

The firms choose the currency composition of their debt so as to minimize their probability of default. Many emerging market economies borrow in foreign currency since for less developed countries the domestic currency cannot be used to borrow abroad or even long term domestically (Eichengreen and Hausman, 1999, p.3); this situation is described as “Original sin” of International finance by Eichengreen and Hausman. Oliver Jeanne says that the “Original sin” is the lack of credibility in domestic monetary policy. If the foreign debt were denominated in local currency, the government would have an incentive to inflate in order to decrease the real value of its liabilities and that of its citizens (Chamon, 2003, p.2)

The temptation to inflate is lower for a government that cannot inflate away its debt because it is foreign currency (Calvo 1996 and Bohn 1990). This argument works well for sovereign debt but it is difficult to transpose to private debt (Calvo 1996 and Bohn 1990). The problem is that the private borrowers, whose individual debt is typically very small relative to the economy, internalize the impact of their liabilities on domestic policy. These borrowers are unwilling to bear the private risks of foreign currency debt in order to produce the public good of a better policy. As a result transposing the discipline argument implies that there is too little foreign currency debt in the private sector. (Tirole, 2002)

“The unpredictable monetary policy makes the borrowers unsure about the future real value of their domestic currency debts and induces them to dollarise their liabilities”

(Jeane, 2003, pp-3). But foreign currency debt is itself dangerous in situations of large depreciation. Oliver Jeane explains with a fixed currency peg model that with increasing the probability of devaluation induces the firms to borrow in foreign currency. He concludes that the floating exchange rate regime that lacks credibility can even induce liability dollarisation like fixed currency peg.

The correlation of default risk with real depreciations and the inability to enforce preferred creditor clauses in foreign debt contracts can play an important role in determining the denomination of foreign debt. Therefore, credible monetary policy in itself is not necessarily going to address the problem of dollarization of liabilities (Chamon, 2003). These results were obtained within a real model.

In the New Member States of European Union (EU), an interest rate differential leads to the higher dollarisation of liabilities in a country. “The smaller countries are prone to choose foreign currency loan may be because of upfront cost of developing domestic currency instruments is harder to justify” (Rosenberg & Tirpak, 2008, p.14)

The other papers which endogenize the currency composition of private debt are:

- i) Foreign currency debt arises because of the moral hazard created by the bail out guarantees. (Mckinnon and Pill, 1999)
- ii) Foreign currency debt arises because of lack domestic financial development (Jeane, 2003).
- iii) Foreign currency debt arises because of commitment or signaling problems at the level of domestic firms (Jeane, 2003)

2.3 The Factors affecting ECB:

In the previous section we have seen that the inflows in the form of ECB has increased drastically particularly in the last couple of years or so. Now in this section we will try to look at the possible factors behind this increase in ECB. The borrowing behaviour of the corporates can be classified broadly under Investment demand and the cost of capital (Singh, 2007). The Investment demand is the demand led factor and the cost of capital is the supply led factor. Investment demands can be financed through internal resources and external sources- internal resources in the form retained profits and external sources which are motivated by the choice about capital structure. The capital structure of a firm

depends on the firm's choice between debt and equity capital. Equity capital can be raised from the promoters or capital market. Debt in the form of loans and bonds can be raised through floating corporate bonds or borrowing from banks or non-banking financial corporations. Thus the firm's choice between borrowing from the overseas market or domestic capital market is done typically after a deliberate process of long term financial planning (Singh, 2007). So the firm's decision to borrow from overseas market can be a complicated matter and depended on a number of factors. (Singh, 2007)

- i) A firm's potential demand for domestic investment is a function of the expectations about the future growth.
- ii) Due to the underdeveloped market and less liquid bond market, the firms might face credit constraint which may hamper borrowings by small firms and may not be helpful for large sized bond issuances as well as maturity of long maturity horizon. International capital markets due to their highly liquid nature and capacity to absorb long maturity bonds help firms to raise sufficient resources.
- iii) For similar financial assets, the interest rate differential above a threshold level together with expectations about exchange rate movements may lead firms to substitute domestic liabilities with international liabilities. It is argued that firms could raise funds from international capital markets at a lower cost (Saudagaran, 1988)
- iv) The domestic firms raising loans from international markets may help firms to acquire credibility and reputation which in turn may be helpful in greater access to domestic markets. The firms that participate in international markets tend to obtain better financing opportunities and leverage for longer debt maturity. (Karolyi, 1998; Chaplinksy and Ramchand, 2000; Miller and Puthenpurackal, 2000; Lins, Strickland, and Zenner, 2001; Schmukler and Vesperoni, 2001; Doidge, Karolyi and Stulz, 2002)
- v) A firm having global scale of operations and having exposure to receivables and borrowings in foreign currency may provide a natural hedge to its balance sheet. Even the firms may take help from international markets to finance their global operations.
- vi) The foreign currency borrowing is associated with exchange risks and the firms need to handle it with sophisticated financial instruments.

The exchange rate constitutes the important element of corporate overseas borrowing. The corporates tend to do more ECB when there is expectation that the currency will appreciate since the currency appreciation will reduce debt servicing cost in the future (Singh, 2007)

As far as India is concerned, well the reason can be the interest differential between the domestic and the international rate. But that needs to be verified whether the interest rate differential was the actual reason. An important issue that arises in the context of interest rate differential is the inflation wedge between the domestic and the rest of the world. A higher inflation wedge would, in principle, translate into higher nominal interest rates, create the opportunities for cross border interest rate arbitrage and hence encourage domestic firms to tap international capital markets (Singh, 2007)

For interest rate arbitrage a number of measures (Singh, 2007) can be constructed:-

- a) A nominal interest rate spread on 10 year Government of India (GOI) bonds over the 6 months LIBOR (adjusted for 6 months forward premia) provides evidence that there was significant interest rate arbitrage
- b) The spread of 5 year of GOI bonds also reveal the same trend.
- c) The spread of 5-year AAA rated corporate bonds over the 6-month LIBOR also shows the presence of interest rate arbitrage.
- d) The spread of the prime lending rate of the commercial banks over the 6 months LIBOR

The table below shows the prime lending rate of the commercial banks and LIBOR rate over 6 months

TABLE-2.1

LIBOR Rates within and over 5 years of maturity and Prime Lending Rates

	LIBOR rate	within 5 years of maturity	over 5 years of maturity	Prime Lending Rate
2007-08	3.05	4.55	5.55	12.25-12.75
2006-07	5.25	7.25	8.75	12.25-12.50
2005-06	5.27	7.27	8.77	10.25-10.75
2004-05	3.76	5.76	7.26	10.25-10.75
2003-04	1.79	3.79	5.29	10.25-11.00
2002-03	1.23	3.23	4.73	10.75-11.50
2001-02	1.87	3.87	5.37	11.00-12.00
2000-01	3.73	5.73	7.23	11.00- 12.00

Data Source: IFS, RBI

Looking at the international interest rate i.e. LIBOR (London Inter Bank Offer Rate) rate, we see that the rates has been fluctuating in the range of 1% to 6% over the financial years. Now, if all-in-cost ceilings were 200 to 350 basis points (over the 6 months LIBOR rate) depending on the 5 years of maturity and above 5 years of maturity. Thus the total rate of interest will at the maximum will be around 10%. This is much lower that the prime lending rate of the banks in India. So the interest differential was an obvious reason for this huge surge in ECB.

Even the co-efficient of correlation between the ECB disbursements and the interest rate differential between domestic and external market is observed to be high (0.75) (Singh, 2001).

Chapter-3

The Norms and Regulations of External Commercial Borrowing

3.1 The Rules of External Commercial Borrowing

External Commercial Borrowing (ECB) refers to the commercial loans in the form of bank loans, buyers' credit, suppliers' credit, securitized instruments (e.g. floating rate notes and fixed rate bonds) availed from the non-resident lenders with minimum average maturity of 3 years.

ECB can be accessed under two routes -: **I) Automatic Route** and **II) Approval Route**

I) Automatic Route

1) Eligible Borrowers

- i) Indian corporates except financial intermediaries (such as banks, financial institutions, housing finance companies and NBFCs) are eligible to raise ECB.
- ii) But individuals, Trusts and Non-Profit making Organisations are not eligible to raise ECB.
- iii) Units in the Special Economic Zones (SEZs) are allowed to borrow funds for their own requirement but cannot lend ECB funds to sister concerns or any unit in the Domestic Tariff Area
- iv) Non-Governmental Organizations (NGOs) engaged in micro finance activities are eligible to avail ECB.

2) Recognized Lenders

- i) Internationally recognized sources such as a) international banks, b) international capital markets, c) multilateral financial institutions (such as IFC, ADB, CDC), d) export credit agencies e) suppliers of equipment, f) foreign collaborations and g) foreign equity holders

A "foreign equity" holder to be eligible as a "recognized lender" under the automatic route would require minimum holding of equity in the borrower company as given below:

- a) For ECB up to USD 5 million- minimum equity of 25 percent
- b) For ECB more than USD 5 million- minimum equity of 25 percent and debt-equity ratio not exceeding 4:1
- ii) Overseas organizations and individuals complying with following safeguards may provide ECB to Non-governmental Organisations (NGOs) engaged in micro finance activities.
 - a) Overseas Organisations proposing to lend ECB would have to produce a certificate of due diligence from an overseas bank.
 - b) Individual lender has to have a certificate of due diligence from an overseas bank indicating that the lender maintains an account with the bank for at least a period of two years.

3) Amount and Maturity

- a) The maximum amount of ECB which can be raised by a corporate is USD 500 million during a financial year.
- b) ECB up to USD 20 million with minimum average maturity of three years and can have call or put option
- c) ECB above USD 20 million and up to USD 500 million with minimum average maturity of five years.

4) All-in-cost ceilings

All-in-cost includes rate of interest, other fees and expenses in foreign currency commitment fee, pre-payment fee, and fees payable in Indian Rupees. The payment of withholding tax in Indian Rupees is excluded for calculating the all-in-cost.

The all-in-cost ceilings for ECB are indicated from time to time.

Average Maturity Period	All-in-cost Ceilings over 6 months LIBOR
Three years and up to five years	200 basis points
More than five years	350 basis points

5) Permitted End Uses of ECB

- a) Investment e.g. import of capital goods, implementation of new projects and modernization or expansion of existing production units in real sector- industrial sector including small and medium enterprises (SME) and infrastructure sector is defined as i) power, ii) telecommunication, iii) railways, iv) road including bridges, v) sea port and airport, vi) industrial parks and vii) urban infrastructure (water supply, sanitation and sewage projects)
- b) Overseas direct investment in Joint Ventures (JV) or wholly owned subsidiaries (WOS)
- c) For lending to self-help groups or for micro finance activity including capacity building by NGOs engaged in micro finance activities.
- d) To refinance the existing ECB, a fresh ECB may be raised provided that the fresh ECB is raised at a lower all-in-cost and the outstanding maturity of the original ECB

6) End Uses not permitted

- a) The corporates are not permitted to utilize the ECB proceeds for on-lending or investment in capital market or acquiring a company (even a part).
- b) The proceeds are not permitted to be utilized in real estate. The real estate excludes development of integrated township (integrated township includes housing, commercial premises, hotels, resorts, city and bridges, mass rapid transit systems and manufacture of building materials)
- c) Not permitted for utilizing working capital, general corporate purpose and repayment of existing Rupee loans.

7) Guarantees

Issuance of guarantee, standby letter of credit, letter of undertaking or letter of comfort by banks, Financial Institutions and Non-Banking Financial Companies (NBFCs) relating to ECB is not permitted

8) Security

The security to be provided to the lender or supplier is left to the borrower.

9) Parking of ECB proceeds overseas

Until actual requirement in India, the ECB proceeds shall be parked overseas.

10) Prepayment and Debt Servicing

Prepayment of ECB up to USD 200 million may be allowed by AD banks without prior approval of RBI. The designated Authorised Dealer (AD) bank has the general permission to make remittances of installments of principal, interest and other charges in conformity with ECB guidelines.

II) Approval Route

The following types of proposals for ECB are covered under the Approval Route.

1) Eligible Borrowers.

- a) Financial Institutions totally dealing with infrastructure or export finance such as IDFC, IL&FS, Power Finance Corporation, Power Trading Corporation, IRCON and EXIM Bank.
- b) Banks and financial institutions which had participated in the restructuring of the textile and steel sector as approved by the government are also permitted.
- c) ECB with minimum average maturity of 5 years by Non-Banking Financial Companies (NBFCs) to finance import of infrastructure equipment
- d) Housing finance companies can issue Foreign Currency Convertible Bonds (FCCB) satisfying the following condition: i) during the previous 3 years, the minimum net worth of the financial intermediary shall not be less than Rs.500 crores, ii) a listing on the BSE or NSE iii) the minimum size of FCCB is USD 100 million, iv) the applicant should submit the purpose or plan of utilization of funds.
- e) Special purpose vehicles or any other entity notified by the RBI, set up to finance infrastructure companies or projects exclusively.
- f) Multi-State Co-operative Society engaged in manufacturing activity

g) The cases which do not come under the purview of the automatic route limits and maturity period come under the approval route.

2) Recognized Lenders.

i) Borrowers can raise ECB from internationally recognized sources such as

a) international banks, b) international capital markets, c) multilateral financial institutions (such as IFC,ADB CDC), d) export credit agencies e)suppliers of equipment, f) foreign collaborations and g)foreign equity holders.

ii) A “foreign equity” holder to be eligible as a “recognized lender” under the approval route would require minimum equity held directly by the foreign equity lender is 25 % but the debt-equity ratio exceeds 4:1.

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The All-in-cost ceilings, End Use-Permitted, End Use Not Permitted, Guarantee, Security, Parking of ECB proceeds Overseas, Prepayment and Debt Servicing are same as the Automatic Route.

Recent Changes in the ECB Norms.

The above regulations in respect of the Automatic route and the Approval Route were of the year, 2006. Here are the changes which have been made after this.

I) Automatic Route

1) Eligible Borrowers

According to the new regulation in 2009, Corporates in service sector ie hotels, hospitals and software companies can avail ECB up to USD 100 million per financial year under Automatic Route for foreign currency or Rupee capital expenditure for permissible end uses



2) All-in-cost Ceilings

Average Maturity Period	All-in-cost Ceilings over 6 months LIBOR		
	2007	2008	2009
Three years and up to five years	150 basis points	250 points	300 basis points
More than five years	250 basis points	350 basis points	500 basis points

In the year 2007, cost ceiling of ECBs (i.e. ECB of average maturity period of three years and up to five years and ECB of average maturity period more than five years) have been reduced to 150 and 250 basis points respectively. In the year, 2008 cost ceilings has been increased and set at the previous level ie at 250 and 350 basis points respectively. In 2009, it has been further increased to 300 and 500 basis points respectively.

3) Prepayment

i) In 2007, prepayment of ECB has been increased from USD 200 million to USD 400 million. Prepayment of ECB amount exceeding USD 400 million would be considered under the Approval Route by RBI.

ii) In 2008, prepayment of ECB has been further increased to USD 500 million. Prepayment exceeding USD 500 million would be considered under the Approval Route.

4) Amounts and Maturity

NGOs engaged in micro finance activities can raise ECB up to USD 5 million has been placed under the Approval Route in 2008.

5) End Use Permitted

For lending to self-help groups or for micro credit or for bonafide micro finance activity including capacity building by NGOs engaged in micro finance activities. This has been removed.

Import of capital goods by corporates in the services sector- hotels, hospitals and software and this has been incorporated to the existing regulations.

II) Approval Route

1) Eligible Borrowers

A few more entities have been added as eligible borrowers.

- a) Corporates engaged in Industrial sector and Infrastructure sector in India can avail ECB for Rupee expenditure for permissible end-uses.
- b) Non-Governmental Organisations (NGOs) are eligible to avail ECB for Rupee expenditure provided they are engaged are in micro finance activities.
- c) In 2009, Non-Banking Financial Companies (NBFCs) are permitted to avail ECB for a minimum average maturity period of five years to finance import of infrastructure equipments for leasing to infrastructure projects in India.

2) Recognised Lenders

The following regulations were withdrawn from Automatic Route and placed under the recognised lenders in Approval Route.

Overseas organizations and individuals complying with following safeguards may provide ECB to Non-governmental Organisations (NGOs) engaged in micro finance activities.

3) Amount and Maturity

- a) In 2007, this regulation was introduced. Corporates can avail ECB of an additional amount of USD 250 million with average maturity of more than 10 years under the Approval Route over and above the existing limit of USD 500 million under the Automatic Route during a financial year. Prepayment and call or put option would permissible for such ECB up to a period of 10 years.
- b) In 2008, following were introduced to the existing ones:-
 - i) Corporates in Infrastructure can obtain ECB up to USD 100 million and corporates in Industrial sector can obtain up to 50 million for Rupee capital expenditure for permissible end-uses.

ii) NGOs engaged in micro finance activities can raise ECB up to 5 million during a financial year.

iii) For import of capital goods, corporates in the services sector hotels, hospitals and software companies can obtain ECB up to USD 100 million per borrower, per financial year.

4) All-in-cost ceilings:

Average Maturity Period	All-in-cost Ceilings over 6 months LIBOR		
	2007	2008	2009
Three years and up to five years	150 basis points	250 points	300 basis points
More than five years	250 basis points	350 basis points	500 basis points

In the year 2007, cost ceilings of ECBs (i.e. ECB of average maturity period of three years and up to five years and ECB of average maturity period more than five years) have been reduced to 150 and 250 basis points respectively.

In the year, 2008 cost ceilings has been increased and set at the previous level ie at 250 and 350 basis points respectively. In 2009, it has been further increased to 300 and 500 basis points respectively.

5) End-uses Permitted

In End uses one more regulation has been added

i) Import of capital goods by corporates in the services sector –hotels, hospitals and softwares companies.

ii) In 2007, RBI had withdrawn the exemption accorded to the “development of integrated township” as a permissible end-use of ECB. In 2009, it has been decided to

permit the corporates engaged in the development of integrated township to avail ECB under the Approval Route.

6) Prepayment

- a) Prepayment of ECB has been increased from USD 200 million to USD 500 million.
- b) Prepayment amounts exceeding USD 500 million would be considered RBI under the Approval Route.

3.2 The Profile of the ECB borrowers

Before we move on to the next chapter to look into our objectives, it is necessary to be well acquainted about the set of companies which we will be using to accomplish our objectives. In CMIE database there are a set of 255 companies which have done external commercial borrowing and our III dataset which will be required in the next chapter. The questions which arise regarding the ECB companies are: which are these companies; they belong to which sectors rather they are engaged in which economic activities. So these will be our primary issues in this section. If we broadly divide the main sectors to which these companies belong, it can be divided into 6 basic categories. They are:-

- i) Manufacturing
- ii) Financial Services
- iii) Services
- iv) Electricity
- v) Construction
- vi) Mining

The maximum numbers of companies belong to the manufacturing sector. There are 165 companies which come under the Manufacturing sector. The number of companies representing the service sector is 48 and can be ranked as second highest after manufacturing sector. There are 22 financial institutions in the dataset which access credit from the external market. In the power sector and construction sector there are 10 and 9 companies respectively. Finally in the mining sector there is only one company which accesses this credit from the foreign market.

When we say that these are the companies which belong to the manufacturing sector, we are not clear about the activities of the companies under this sector. Since manufacturing sector is a huge area and so we need to go into further divisions to know about their actual economic activity. The manufacturing sector can be further subdivided in to the following categories: i) Food and Beverages, ii) Textiles, iii) Chemicals, iv) Machinery, v) Transport Equipment, vi) Non-metallic mineral products, vii) Metal and Metal products. Similarly the Service sector can be subdivided into i) Hotel and Tourism, ii) Recreational and Health Services, iii) Whole sale and Retail Trading, iv) Transport Services, v) Communication Services and vi) Information Technology.

So we have seen the distribution of the ECB companies of II dataset. We have already defined about the III dataset i.e. the intersection companies which will also be used in the next chapter. So, now we will try to know about the III dataset. The companies in the III dataset are from CMIE data base about which we have just explained above. To have a better idea about our III dataset we will see the representation of the sectors in total borrowing (total borrowing of the intersection companies).

We find that the maximum borrowers belong to the manufacturing sector and it had a share of around 40% of the total borrowing over the financial years. In the financial year 2005-06, it had a share of 71% of the total borrowing. Next to the manufacturing sector, the services sector has been an important sector as far as borrowers is concerned. Since the financial year, 2006-07 it had a considerable share of around 30 to 40%.

In the manufacturing sector, the chemicals and the transport equipment were the important sectors over the financial years as far as borrowing is concerned.

TABLE-3.1

Sector Wise Composition of ECB Borrowers in Percentage

	% of sector wise borrowers			
	2004-05	2005-06	2006-07	2007-08
Manufacturing	42.93285	71.7099092	39.76826749	32.44624123
Financial services	29.04376	10.4996074	9.278134632	7.344740381
Services	10.32677	9.46942664	30.96813158	44.47963874
Electricity	10.86845	0	13.72968501	8.730930141
Construction	6.792783	8.32105683	6.255781289	6.933453693

Data Source: CMIE, RBI

TABLE-3.2

Composition of ECB in Manufacturing Sector

	Manufacturing					
	OTHERS	1) Food & beverages	2) Textiles	3) Chemicals	4) Machinery	5) Transport Equipment
2004-05	10.8732		9.718587977	46.3292573	4.726192	28.3528
2005-06	9.41661	6.56768305	3.750398242	45.4927492	3.699436	31.07312
2006-07	32.7893	8.87029998	2.174524952	33.9364554	13.65761	8.57184
2007-08	13.5981	0.03184314	10.85850019	21.2408906	2.460578	51.81012

Data Source: CMIE, RBI

Chapter-4

Data Analysis

4.1 The Foreign Exchange Earning Capability of the Companies

The external debt of our country has been soaring high and the debt due to ECB has placed itself quite significantly in it. So the question which instantly emanates, what is the reason behind such negligence by the companies in paying off the debts incurred by them in foreign currency rather in dollars? So in this chapter we will explore our three objectives in three different sections. The first objective is: i) Are the companies generating enough of foreign exchange earnings to meet the future commitments?

For addressing this question we will use two datasets i.e. II and III data set. The set of 255 companies in CMIE database and the set of the intersection companies.

In case of all 255 companies, the table 4.1 shows the exports and net exports of all these companies from the financial year 2000-01 to 2007-08. Here exports of the companies mean the export of goods and services and imports mean import of raw materials, stores and spares, finished goods and capital goods.

The exports of all these companies have been very impressive at least, for the last three to four years. Since the financial year 2002-03, the exports have been increasing at a very fast pace as shown in the table. Excluding financial year 2005-06, the exports have been increasing by 3 to 4 billion dollars yearly. Initially exports have increased almost by 100%, although in the later years this increase has reduced to 30-40%. But overall, the growth rates of the exports have been very satisfying. But this is not the entire story. The increases in imports have actually outpaced the exports. Since the financial year 2000-01 to 2004-05, the imports have increased by a bit less than the exports such that the net exports were positive. But the amounts of the net exports were very inconsiderable, less than half a billion other than in the financial year 2005-06. Post 2004-05, the imports have been 5-6 billion dollars more than the exports which resulted in the net exports of all the companies turning out to be negative. So, the recent trend shows that all these companies as a whole have not been generating any surplus of export earnings over import payments. Though in the initial years, they were involved in net earnings of foreign exchange but the amount of the foreign exchange earned were negligible.

TABLE-4.1

Exports, Net Exports and Net Foreign Exchange earnings of ECB companies

	Exports of 255 companies in billion \$	Net Exports of 255 companies in billion \$	Net foreign exchange earnings of 255 companies in Billion \$
2007-08	18.5647	-5.2164	-4.6855
2006-07	14.0556	-4.2793	-3.6657
2005-06	10.7678	-4.2846	-3.8774
2004-05	10.5011	0.3173	0.5136
2003-04	6.7773	0.8329	0.8899
2002-03	3.8601	0.3321	0.3835
2001-02	2.8121	0.3633	0.4401
2000-01	2.7553	0.5054	0.6139

But an argument can be raised that the companies were generating some foreign exchange earnings through dividend, interests or others which might have been sufficient to meet their foreign exchange needs. So for this, we have considered the same database. But now instead of export of goods and services, we have considered total foreign exchange earnings which include export of goods, export of services, dividend, interests, deemed exports and others. And we find out, net foreign exchange earnings which is total foreign exchange earnings less all import payments. Since our objective has been to inquire whether the companies have the ability to generate enough of foreign exchange earnings to meet the future commitments in form of amortisation and interests, so we consider only the import payments and not the other foreign exchange expenditures like interests, dividends, amortisation etc.

And for our further discussion we will use this definition of net foreign exchange earnings. We find that the other components of foreign exchange earnings enhanced the earning of foreign exchange as shown in the table 4.1 but could not out turn the trend which we observed before. So these companies have been net spenders of foreign exchange.

So from the above discussion it is quite clear that over the past 3-4 years, the companies have not been associated with net earning of foreign exchange. But this is the picture which is portrayed by all the firms as a whole. So we need to look at the firms individually and check their capability level to meet the future commitments. We will do

a test on a company by company basis and our data set will be the data set III i.e. of the intersection companies of the financial year 2004-05. For the financial year 2004-05, we have obtained some 36 companies which have borrowed from the external market. The ECB borrowed by these 36 companies sum up to 1.84 billion dollars in the financial year 2004-05 which is around 20% of the total ECB disbursed to India. The total ECB by these intersection companies over the financial years has been shown in the table 4.2

TABLE-4.2

ECB of intersection companies, Disbursements of ECB to India and ECB of intersection companies as a % of Disbursements to India

	ECB of intersection companies (billion \$)	Disbursements of ECB to India (billion)	ECB of intersection companies as a % to total ECB disbursed to India
2007-08	5.873	30.376	19.3343429
2006-07	4.843	20.883	23.1911124
2005-06	3.885	14.343	27.0863836
2004-05	1.82	9.084	20.0352268

Data Source: CMIE, RBI

In this test on a company by company basis, we basically want to look at whether the companies have the ability to meet the commitments over the financial years or not. To simplify our tests we have based our test on certain assumptions

- a) We assume that all the companies have borrowed for maturity of 4 years.
- b) We have considered the average LIBOR rate post 2000, within 5 years of maturity and that is 3.2475.²
- c) We have assumed 200 basis points over the LIBOR rate.

Here foreign exchange earnings of the companies include: export of goods and services, interest earning, dividend, deemed exports and other earnings. The imports include: imports of raw materials, stores and spares, finished goods and capital goods. The net foreign exchange earnings are foreign exchange earnings less the import payments.

² Arithmetic Mean of yearly LIBOR rates post 2000

Since the companies have borrowed for 4 years (say), in each financial year they have to pay one-fourth of the principal as amortisation plus the interest payment. Let us illustrate the process by taking an example. In the financial year 2004-05, Amtek has borrowed 60 million dollars for 4 years. In each year the company has to make 15 million dollars (60million USD/4) as amortisation plus the interest payments depending on the principal. In the first year i.e. 2005-06, the company has to make 60million dollars times the interest rate (5.2475, adding 200 basis points) as interest payments. In second year, i.e. 2006-07, the interest payment would be reduced since the principal amount has reduced by 15 million dollars and interest would be charged on 45 million dollars. In this way interest payment would be made along with 15 million dollars as amortisation.

We find that out of the 36 companies, there are 23 companies which have not been generating any surplus of foreign exchange earning over foreign exchange payments as shown in the table no. 4.3. Out of these 23 companies, 7 companies are such that they have not been importing or exporting over the financial years 2005-06 to 2007-08. There are 2 companies which have been generating a meagre amount of foreign exchange which is just not sufficient enough to meet the future commitments; Bharat Forge is one such company. So, we can say that in total 25 companies are such that they have been net spenders of foreign exchange and incapable to meet the future commitments. So running a test on these companies to check their capability to meet the future commitments is useless. The rest of the 11 companies have been associated with net earning of considerable amount of foreign exchange and with ease they would be able to meet the commitments as far as the commitments in dollars is concerned. The most interesting feature is these 25 companies have been very consistent over the years as far as net spending of foreign exchange is concerned. Moreover, we find that these have actually maintained this consistency as net spenders prior to the financial year 2004-05. So from the above discussion, it has become quite obvious that most of the companies have not been net earners of any foreign exchange.

This consistency of the companies as being net spenders of foreign exchange stimulates us to ask a question:

- i) Is there any relation between these companies to any particular sector of the economy?

TABLE-4.3
NET FOREIGN EXCHANGE EARNINGS OF INTERSECTION COMPANIES
FOR 2005-06

	2004-05	2005-06	2005-06	2005-06	Net Foreign exchange earnings 2005-06
Company Name	ECB in USD	Amortisation (\$)	Interest payment(\$)	Total A+I(million \$)	In million dollars
Alok Industries Ltd.	61,953,479	15,488,370	3251008.81	18.739379	14.93218291
Amtek Auto Ltd.	60,000,000	15,000,000	3148500	18.1485	36.32647069
Ashok Leyland Ltd.	100,000,000	25,000,000	5247500	30.2475	73.77776774
Aurobindo Pharma Ltd.	20,000,000	5,000,000	1049500	6.0495	30.72492575
Bharat Forge Ltd.	30,000,000	7,500,000	1574250	9.07425	0.002258687
Cadila Healthcare Ltd.	22,207,116	5,551,779	1165318.41	6.717097412	- 21.78504071
Caparo Maruti Ltd.	3,000,000	750,000	157425	0.907425	- 9.111545281
Caterpillar India Pvt. Ltd.	9,000,000	2,250,000	472275	2.722275	- 15.08577366
Dishman Pharmaceuticals & Chemicals Ltd.	12,010,395	3,002,599	630245.478	3.632844228	0
Dow Corning India Pvt. Ltd.	6,000,000	1,500,000	314850	1.81485	22.89179758
Enkei Castalloy Ltd.	3,000,000	750,000	157425	0.907425	32.72386416
Faze Three Ltd.	336,632	84,158	17664.7459	0.101822659	13.27656499
G T L Ltd.	63,371,615	15,842,904	3325425.48	19.16832918	0
Garden Silk Mills Ltd.	14,491,142	3,622,786	760422.676	4.383208176	- 0.374942121
H E G Ltd.	7,902,898	1,975,725	414704.573	2.390429073	0
Hikal Ltd.	10,000,000	2,500,000	524750	3.02475	- 152.1406711
Hitachi Home & Life Solutions (India) Ltd.	6,038,086	1,509,522	316848.563	1.826370063	- 0.639208556
I C I C I Ltd. [Merged]	15,000,000	3,750,000	787125	4.537125	45.69776503
India Glycols	11,804,633	2,951,158	619448.117	3.570606367	0

Ltd.					
Indian Railway Finance Corpn. Ltd.	249,073,983	62,268,496	13070157.3	75.33865301	0
Jaiprakash Associates Ltd.	125,000,000	31,250,000	6559375	37.809375	- 17.03502095
Jindal Steel & Power Ltd.	75,000,000	18,750,000	3935625	22.685625	1.296486612
L M L Ltd.	26,000,000	6,500,000	1364350	7.86435	8.332298102
Man Industries (India) Ltd.	9,000,000	2,250,000	472275	2.722275	0
Monnet Ispat & Energy Ltd.	60,000,000	15,000,000	3148500	18.1485	- 1.556235671
Moser Baer India Ltd.	20,000,000	5,000,000	1049500	6.0495	- 75.02230454
Motherson Sumi Systems Ltd.	5,000,000	1,250,000	262375	1.512375	- 3.019865156
O R G Informatics Ltd.	490,500	122,625	25738.9875	0.148363988	36.75788
Power Finance Corpn. Ltd.	250,000,000	62,500,000	13118750	75.61875	65.84073995
Seminis Vegetable Seeds (India) Ltd.	1,170,000	292,500	61395.75	0.35389575	- 0.313957559
Shanthi Gears Ltd.	2,300,972	575,243	120743.506	0.695986506	0
Small Industries Devp. Bank Of India	20,385,997	5,096,499	1069755.19	6.166254443	- 4.605463765
Sterling Biotech Ltd.	90,000,000	22,500,000	4722750	27.22275	- 0.239420873
Tata Power Co. Ltd.	200,000,000	50,000,000	10495000	60.495	- 244.5548692
Tata Teleservices (Maharashtra) Ltd.	125,000,000	31,250,000	6559375	37.809375	8.330039414
Terxpro Films Pvt. Ltd.	651,007	162,752	34161.5856	0.196913304	286.6319582
Wockhardt Ltd.	125,000,000	31,250,000	6559375	37.809375	- 55.68793974

TABLE-4.3
NET FOREIGN EXCHANGE EARNING OF INTERSECTION COMPANIES
FOR 2006-07

	2004-05	2006-07	2006-07	2006-07	Foreign exchange earnings 2006-07
Company Name	ECB in USD	Amortisation	Interest payment	Total A+I	In million dollars
Alok Industries Ltd.	61,953,479	15488370	2,438,257	17.9266	64.324
Amtek Auto Ltd.	60,000,000	15000000	2,361,375	17.3614	61.188
Ashok Leyland Ltd.	100,000,000	25000000	3,935,625	28.9356	59.66
Aurobindo Pharma Ltd.	20,000,000	5000000	787,125	5.78713	38.494
Bharat Forge Ltd.	30,000,000	7500000	*1,180,688	8.68069	0.0066
Cadila Healthcare Ltd.	22,207,116	5551779	873,989	6.42577	-16.86
Caparo Maruti Ltd.	3,000,000	750000	118,069	0.86807	0
Caterpillar India Pvt. Ltd.	9,000,000	2250000	354,206	2.60421	-18.31
Dishman Pharmaceuticals & Chemicals Ltd.	12,010,395	3002599	472,684	3.47528	0
Dow Corning India Pvt. Ltd.	6,000,000	1500000	236,138	1.73614	28.632
Enkei Castalloy Ltd.	3,000,000	750000	118,069	0.86807	57.302
Faze Three Ltd.	336,632	84157.91	13,249	0.09741	18.004
G T L Ltd.	63,371,615	15842904	2,494,069	18.337	0
Garden Silk Mills Ltd.	14,491,142	3622786	570,317	4.1931	-0.104
H E G Ltd.	7,902,898	1975725	311,028	2.28675	0
Hikal Ltd.	10,000,000	2500000	393,563	2.89356	-232.1
Hitachi Home & Life Solutions (India) Ltd.	6,038,086	1509522	237,636	1.74716	-0.024
I C I C I Ltd. [Merged]	15,000,000	3750000	590,344	4.34034	48.685
India Glycols Ltd.	11,804,633	2951158	464,586	3.41574	0
Indian Railway Finance Corpn. Ltd.	249,073,983	62268496	9,802,618	72.0711	0
Jaiprakash Associates Ltd.	125,000,000	31250000	4,919,531	36.1695	-10.08

Jindal Steel & Power Ltd.	75,000,000	18750000	2,951,719	21.7017	49.12
L M L Ltd.	26,000,000	6500000	1,023,263	7.52326	5.7679
Man Industries (India) Ltd.	9,000,000	2250000	354,206	2.60421	0
Monnet Ispat & Energy Ltd.	60,000,000	15000000	2,361,375	17.3614	1.5347
Moser Baer India Ltd.	20,000,000	5000000	787,125	5.78713	-18.45
Motherson Sumi Systems Ltd.	5,000,000	1250000	196,781	1.44678	4.3215
O R G Informatics Ltd.	490,500	122625	19,304	0.14193	34.979
Power Finance Corpn. Ltd.	250,000,000	62500000	9,839,063	72.3391	76.516
Seminis Vegetable Seeds (India) Ltd.	1,170,000	292500	46,047	0.33855	0.3533
Shanthi Gears Ltd.	2,300,972	575243	90,558	0.6658	0
Small Industries Devp. Bank Of India	20,385,997	5096499	802,316	5.89882	-2.765
Sterling Biotech Ltd.	90,000,000	22500000	3,542,063	26.0421	-0.786
Tata Power Co. Ltd.	200,000,000	50000000	7,871,250	57.8713	-266.4
Tata Teleservices (Maharashtra) Ltd.	125,000,000	31250000	4,919,531	36.1695	15.924
Terxpro Films Pvt. Ltd.	651,007	162751.7	25,621	0.18837	280.13
Wockhardt Ltd.	125,000,000	31250000	4,919,531	36.1695	-136.7

TABLE-4.3
NET FOREIGN EXCHANGE EARNING OF INTERSECTION COMPANIES
FOR 2007-08

	2004-05	2007-08	2007-08	2007-08	Foreign exchange earnings 2007-08
Company Name	ECB in USD	Amortisation	Interest payment	(A+I) In dollars	In million dollars
Alok Industries Ltd.	61,953,479	15488370	1625504.4	17.114	130.8218
Amtek Auto Ltd.	60,000,000	15000000	1574250	16.574	97.41806
Ashok Leyland Ltd.	100,000,000	25000000	2623750	27.624	124.1893
Aurobindo Pharma Ltd.	20,000,000	5000000	524750	5.5248	99.4185
Bharat Forge Ltd.	30,000,000	7500000	787125	8.2871	0
Cadila Healthcare Ltd.	22,207,116	5551779	582659.21	6.1344	-28.2249
Caparo Maruti Ltd.	3,000,000	750000	78712.5	0.8287	0
Caterpillar India Pvt. Ltd.	9,000,000	2250000	236137.5	2.4861	-28.9878
Dishman Pharmaceuticals & Chemicals Ltd.	12,010,395	3002599	315122.74	3.3177	0
Dow Corning India Pvt. Ltd.	6,000,000	1500000	157425	1.6574	43.3687
Enkei Castalloy Ltd.	3,000,000	750000	78712.5	0.8287	59.30767
Faze Three Ltd.	336,632	84157.91	8832.373	0.093	21.82848
G T L Ltd.	63,371,615	15842904	1662712.7	17.506	0
Garden Silk Mills Ltd.	14,491,142	3622786	380211.34	4.003	0
H E G Ltd.	7,902,898	1975725	207352.29	2.1831	0
Hikal Ltd.	10,000,000	2500000	262375	2.7624	-307.689
Hitachi Home & Life Solutions (India) Ltd.	6,038,086	1509522	158424.28	1.6679	-0.23359
I C I C I Ltd. [Merged]	15,000,000	3750000	393562.5	4.1436	73.52451
India Glycols Ltd.	11,804,633	2951158	309724.06	3.2609	0
Indian Railway Finance Corpn. Ltd.	249,073,983	62268496	6535078.6	68.804	0
Jaiprakash Associates Ltd.	125,000,000	31250000	3279687.5	34.53	-21.908
Jindal Steel &	75,000,000	18750000	1967812.5	20.718	-266.989

Power Ltd.					
L M L Ltd.	26,000,000	6500000	682175	7.1822	3.282722
Man Industries (India) Ltd.	9,000,000	2250000	236137.5	2.4861	0
Monnet Ispat & Energy Ltd.	60,000,000	15000000	1574250	16.574	-0.34542
Moser Baer India Ltd.	20,000,000	5000000	524750	5.5248	11.73927
Motherson Sumi Systems Ltd.	5,000,000	1250000	131187.5	1.3812	-5.50434
O R G Informatics Ltd.	490,500	122625	12869.494	0.1355	96.86141
Power Finance Corpn. Ltd.	250,000,000	62500000	6559375	69.059	51.31582
Seminis Vegetable Seeds (India) Ltd.	1,170,000	292500	30697.875	0.3232	-0.16898
Shanthy Gears Ltd.	2,300,972	575243	60371.753	0.6356	0
Small Industries Devp. Bank Of India	20,385,997	5096499	534877.6	5.6314	-1.8265
Sterling Biotech Ltd.	90,000,000	22500000	2361375	24.861	-0.37772
Tata Power Co. Ltd.	200,000,000	50000000	5247500	55.248	-320.74
Tata Teleservices (Maharashtra) Ltd.	125,000,000	31250000	3279687.5	34.53	30.37201
Terxpro Films Pvt. Ltd.	651,007	162751.7	17080.793	0.1798	108.459
Wockhardt Ltd.	125,000,000	31250000	3279687.5	34.53	-83.5392

There are some companies belonging to the chemicals sector which have been consistent in their inability to generate net foreign exchange earnings. So we are exploring this sector. The chemicals sector has been net spenders of foreign exchange since the financial year 2002-03. Moreover, the absolute value of net foreign exchange earnings of this sector has been more than that of the total 255 companies. But on close observation, we found that the company, Bharat Petroleum Corporation Limited (BPCL) has alone been the giant in importing in such huge quantity. In the past couple of years, the net import of this company has been some 6-7 billion dollars. Thus the other companies have been net earners of foreign exchange. Leaving BPCL, the net foreign exchange earnings of this sector would be positive. So there exists no such relation and we can ignore this sector.

TABLE-4.4

Net foreign Exchange Earnings of all ECB companies, Chemicals Sector and Machinery

	Net foreign exchange earnings of 255 companies	Net foreign exchange earnings of Chemicals sector	Net Foreign exchange earnings of Machinery sector.
	In billion \$	In billion \$	In billion \$
2007-08	-4.685562	-5.6611	-0.6055
2006-07	-3.6657208	-4.6616	-0.3968
2005-06	-3.8774391	-4.0314	-0.3462
2004-05	0.51369307	-0.7977	-0.3237
2003-04	0.88998424	-0.3676	-0.2064
2002-03	0.38353518	-0.1257	-0.2159
2001-02	0.44014602	0.2166	-0.1444
2000-01	0.61391635	0.2886	-0.2894

Data Source: CMIE, RBI

Like the chemical sector we find that the Machinery sector has behaved in a similar way shown in table no. 4.5. The absolute value of the net foreign exchange earnings of this machinery sector has not been so huge. Over the financial years, the net foreign exchange earnings of the companies have been around -0.5 billion dollars. There are 3-4 companies hardly, which have been the net earners of the foreign exchange. And 3-4 companies whose data is not available (not in CMIE database). Otherwise, the majority of the companies have shown their consistency in their inability to generate net foreign exchange earnings over the financial years.

TABLE-4.5
COMPANY WISE NET FOREIGN EXCHANGE EARNING OF MACHINERY SECTOR

Company Name	Mar-08	Mar-07	Mar-06	Mar-05
	Net earnings	Net earnings	Net earnings	Net earnings
A S B International Pvt. Ltd.		48.76	61.04	42.33
Anest Iwata Motherson Ltd.	0.17	-1.51	-0.95	0.57
Areva T & D India Ltd.	50.93	-49.99	-16.45	-37.51
Balzers (India) Ltd.	0	0	0	-4.54
Bhagyanagar India Ltd.	-55.41	-15.38	-40.79	-43.84
Caterpillar India Pvt. Ltd.	0	0	0	-172.3
Compuage Infocom Ltd.	-196.9	-65.18	-49.28	-51.2
Easun Reyrolle Ltd.	-33.98	-17.78	-8.64	-9.55
Elcera Substrates Ltd.	0	0	0	0
Epcos India Pvt. Ltd.	0	0	0	1.93
H C L Infosystems Ltd.	-1760	-1223.5	-880.6	-587.5
Hitachi Home & Life Solutions (India) Ltd.	-140	-84.18	-44.9	-26.23
Kusters Calico Machinery Ltd.	0	0	0	0.12
Mcnally Bharat Engg. Co. Ltd.	-1.39	6.95	-6.89	-7.34
Mitsubishi Heavy Inds. India Precision Tools Ltd.	-31.85	-7.11	-2.13	-0.87
Moser Baer India Ltd.	463.37	445.32	103.3	90.36
New Holland Tractors (India) Pvt. Ltd. [Merged]	0	0	0	11.67
Paramount Communications Ltd.	15.37	-4.66	-24.96	10.66
Philips Electronics India Ltd.	206.5	346.5	296.1	99.8
Punjab Wireless Systems Ltd.	0	0	0	0
Samtel Color Ltd.	-230.8	0	-194.9	-77.08
Shakti Pumps (India) Ltd.	17.11	19.14	22.73	12.08
Shanthy Gears Ltd.	9.15	-31.68	-26.43	-18.51
Shilchar Technologies Ltd.	0.3	-1.63	-3.43	-0.6
Singer India Ltd.	-2.75	-4.59	-0.3	1.11
Sumi Motherson Integrated Technologies Ltd.	0	0	0	0
Tudor India Ltd.	-1.68	-14.65	-2.53	-6.97
Videocon Industries Ltd.	-336.2	-618.95	-246.6	-311.7
X L Telecom & Energy Ltd.	-100.9	-264.87	-238.1	-180.4
Yokogawa India Ltd.	-93.68	-62.61	-83.09	-72.03
Zenith Computers Ltd.	-214.2	-195.58	-145.5	-116.9

TABLE-4.5
COMPANY WISE NET FOREIGN EXCHANGE EARNING OF MACHINERY SECTOR

	Mar-04	Mar-03	Mar-02	Mar-01
Company Name	Net earnings	Net earnings	Net earnings	Net earnings
A S B International Pvt. Ltd.				
Anest Iwata Motherson Ltd.	0.97	0.44		
Areva T & D India Ltd.	36.86	-3.31	14.93	-4.96
Balzers (India) Ltd.	-2.57	-0.08	-2.01	0
Bhagyanagar India Ltd.	-27.19	-3.89	-1.48	-0.81
Caterpillar India Pvt. Ltd.	-137.58	-95.28	0	0
Compuage Infocom Ltd.	-25.01	-23.65	0	-84.83
Easun Reyrolle Ltd.	-1.36	1.07	0.04	2.14
Elcera Substrates Ltd.	0	0	0	0
Epcos India Pvt. Ltd.	26.22	0	0	0
H C L Infosystems Ltd.	-382.99	-286.65	-195.73	-204.07
Hitachi Home & Life Solutions (India) Ltd.	-28.6	-34.31	-49.39	0
Kusters Calico Machinery Ltd.	-0.06	0	0	0
Mcnally Bharat Engg. Co. Ltd.	0.44	-7.61	-17.19	18.02
Mitsubishi Heavy Inds. India Precision Tools Ltd.	-0.79	-0.36	0.49	-0.45
Moser Baer India Ltd.	92.36	103.75	-135.84	-216.59
New Holland Tractors (India) Pvt. Ltd. [Merged]	7.05	0	0	0
Paramount Communications Ltd.	1.29	0.58	24.54	-0.55
Philips Electronics India Ltd.	-96.8	-87.5	-34.3	-53.27
Punjab Wireless Systems Ltd.	0	0	0	0
Samtel Color Ltd.	-59.96	-86.99	-170.37	-211.8
Shakti Pumps (India) Ltd.	6.43	3.57	1.78	0.72
Shanthy Gears Ltd.	-13.01	-5.41	-3.38	1.7
Shilchar Technologies Ltd.	-0.94	-1.15	-1	-0.15
Singer India Ltd.	5.73	7.44	7.69	6.01
Sumi Motherson Integrated Technologies Ltd.	0	0	1.17	0.99
Tudor India Ltd.	-6.66	-6.26	-3.11	-5.55
Videocon Industries Ltd.	-137.4	-379.82	0	-380.05
X L Telecom & Energy Ltd.	-27.65	-11.97	-16.94	-11.28
Yokogawa India Ltd.	-44.79	-38.03	-30.95	-41.35
Zenith Computers Ltd.	-132.8	-89.66	-77.67	-136.42

So we find that all the companies as a whole have been net spenders of foreign exchange. And particularly the companies of the Machinery sector have been consistent net spenders of foreign exchange.

4.2 The Orientation of the Companies

In this section we will pursue our second objective: Are these companies actively involved in trade? In other words, are these ECB companies involved more in cross country trade? For this we will use Exports/Sales (E/S) ratio as an indicator.

Here we will use the dataset II i.e., the set of all 255 ECB companies. The basis on which we have selected the Non-ECB companies is "Total Sales". Till 2007-08, the maximum sale of ECB companies has been Rs 121684.07 crores. So we have selected all those companies which have total sales less than 121684.07 crores of rupees as Non-ECB companies.

We have calculated the Exports/Sales (E/S) ratio of both the categories. The E/S ratio of the Non-ECB companies over the financial years 2000-01 to 2007-08 have been within the range of 0.10 to 0.15. Thus exports of the Non-ECB companies have been 10 to 15% of the sales.

In case of ECB companies, post 2002-03 the E/S ratio has been around 0.13 to 0.16 which means that the exports were 13% to 16% of the sales. In between the financial years 2000-01 to 2002-03, the E/S ratios have been very low. In financial year 2007-08, the E/S ratio has been a bit lower than the Non-ECB companies. So leaving a couple of the initial years of 2000, ECB companies have been more involved in trade compared to the Non-ECB companies.

TABLE-4.6

Export to Sales Ratio of ECB and Non-ECB companies

	Non-ECB companies	ECB companies
	Exports/Sales	Exports/Sales
2007-08	0.1556	0.1508
2006-07	0.1457	0.1501
2005-06	0.1308	0.1457
2004-05	0.1275	0.1678
2003-04	0.1202	0.1364
2002-03	0.1163	0.0995
2001-02	0.1020	0.0866
2000-01	0.1077	0.0784

Data Source: CMIE

Though the ECB companies compared to the Non-ECB companies are better performers as far as exports to their total sales are concerned, yet the ECB companies are mostly

dependent on the domestic markets. Since 84-85% of their produce are sold in the domestic market. This limits their earnings of foreign exchange as they are mostly dependent on the domestic markets. Their confinement into the domestic market actually restricts them to generate foreign exchange earnings.

So these companies are more vulnerable to foreign exchange fluctuation since they are mostly dependent on the domestic markets. Any change in the foreign exchange will have considerable impact on the profits since they have to pay their liabilities (amortization and interest) in foreign currency. So in the next section we will focus on some companies and see considerable impact, if there is foreign exchange fluctuation and interest rate fluctuation.

4.3 Checking Vulnerability of the Companies

For more than a year, the exchange rate vis-à-vis dollar has been deteriorating at a very fast pace. Now it is hovering around 50 Rupees per Dollar. If the companies would have generated surplus of foreign exchange earnings over foreign exchange expenditure then that would have been the natural hedge against the foreign exchange risk which comes with the ECB. But unfortunately that is what has not been happening. The question which makes the issue a grave concern is that the depreciating currency not only creates problem for the companies but also for the nation as a whole. At one hand the external debt of the country vis-à-vis the Gross Domestic Product (GDP) is increasing and debt due to ECB has been contributing more and more and its share is on the rise. When the currency is depreciating, these debtors have to pay more in terms of domestic currency leading to the depletion of the foreign exchange reserves of the country. In this situation of depreciating currency, this puts a question mark on the net gain of the companies when they are not servicing their debt properly and increasing their outstanding debt. So the companies also need to pay more in terms of domestic currency that is the Indian Rupee.

To explain this, let us take an abstract example

Suppose a debtor has borrowed A (say) dollars at time period, 0. Let the foreign exchange rate at $t=0$ be Rs X/dollar and the rate of interest be Y%. Now at time period, 1 all other things remaining constant the exchange depreciates and the now the exchange rate is Rs (X+1)/ dollar. So,

At period, $t=0$, the interest payments on a dollars is, $Y/100 \cdot aX$i)

At period, $t=1$, the interest payments on a dollar will be, $Y/100 \cdot a(X+1)$ii)

Therefore, the change in interest payments, i.e. ii) – i)

$$= Y/100 \cdot a(X+1-X)$$

$$= aY/100$$

Thus if the change in foreign exchange is just by one unit as is supposed in the example then the interest burden also increases as so many times as the change in exchange rate. At the time of principal repayment, due to the devaluation of the currency more in terms of domestic currency needed to pay off.

Moreover, from the discussion of the previous two sections, it has become vividly clear that the companies which have been accessing this cheap credit from the foreign market are: a) net spenders of foreign exchange. b) Secondly, though these companies have been more export oriented compared to the non-ECB (i.e. the companies which are not borrowing from external market) companies yet they have been mostly dependent on the domestic market. Therefore, any kind of fluctuation in the exchange rate may cause serious problem to the companies. So in this section, we want to look at the vulnerability of the companies at times of fluctuation in the interest rate (LIBOR) and exchange rate and in the process pursue our third objective.

For this section, we have used the III data set but some changes have been incorporated to this data set. Of all these companies which have availed ECB have been broadly divided into two categories: - i) companies which have utilized ECB for domestic purposes and ii) companies which have utilized for non-domestic purposes i.e. overseas investment, foreign acquisition etc. Our basic aim is to look at the risk associated with the foreign exchange rate fluctuation and hence this categorization. Since companies which have been utilizing ECB for overseas investment, their earnings would be in the foreign currency and so no hazards of foreign exchange fluctuation as naturally hedged against the exchange rate fluctuation. There are some companies which have availed a particular amount of ECB both for domestic as well for non-domestic purposes in a financial year; we have placed those companies under second category as mentioned above.

We have considered the intersection companies for the financial year 2004-05. There were two companies which have utilized ECB for the overseas investment and they are excluded from our data set. So the companies which have been considered below are among the group of those companies which have borrowed for domestic purposes. Here is the explanation of the process of accomplishing our third objective.

We have considered 8 companies and looked at their profit and loss account which is explained below. We have taken profit before tax (PBT) of these companies. These companies are selected because the maturity period of the ECB borrowed by these companies in the financial year 2004-05 were 5 years. The amounts of ECB borrowed by these companies whose maturity periods were above and below 5 years are not considered in our tests. In our tests we want to look that if the dollar vis-à-vis rupee

appreciates by 10% and if LIBOR rate increases by 10% then what would be the considerable impact on the profit of these companies. In our tests we have considered 3 cases:-

- i) Exchange rate depreciates by 10% with fixed interest rate.
- ii) Exchange rate depreciates by 10% with floating interest rate.
- iii) Exchange rate depreciates by 10% with a rise in floating interest rate by 10%.

LIBOR rate in the financial year 2004-05, 2005-06, 2006-07 and 2007-08 were 3.76%, 5.27%, 5.25% and 3.04% respectively. For the calculation regarding the fixed interest rate, we have added 200 basis points (as per all-in-cost ceilings of the ECB guide lines for 5 years of maturity) to the LIBOR rate of the financial year 2004-05. So in case of fixed rate, total interest rate after adding basis points is 5.76%. Now for calculations regarding the floating rate, we have added 200 basis points for financial years 2005-06, and 2006-07 and 150 basis points for 2007-08 (as per all-in-cost ceilings of the ECB guide lines for 5 years of maturity). So adding the basis points they are: – 7.27, 7.25 and 4.54% respectively. When the floating interest rate increases by 10% is assumed then the interest rates would be 5.80%, 5.77% and 3.35% for financial years 2005-06, 2006-07 and 2007-08 respectively. And adding the basis points will be 7.80%, 7.77% and 4.54% for the financial years 2005-06, 2006-07 and 2007-08 respectively.

Let us consider the first case:

- i) Exchange rate depreciates by 10% with fixed interest rate.

In this case, interest payment has to be made at the fixed rate of interest which depends on the LIBOR rate at the time of borrowing. Since we are using the companies which have borrowed in the financial year 2004-05, the companies have to make interest payment at the LIBOR rate of the financial year 2004-05. Thus the rate at which the companies have to make interests payment is 5.76% (3.76% + 200 basis points) over the financial years. Since the companies have borrowed for 5 years, they have to fulfill the commitments over the 5 financial years in the form of amortisation plus the interest payment.

Ashok Leyland (say) has borrowed 100 million dollars for 5 years. So we assume that the company has to pay 20 million dollars (USD 100 million/5) plus the interest payment over the five financial years. At the end of the first year, the company has to make 20 million dollars as amortisation plus the interest payment. The interest payment will be the interest rate times the amount of principal borrowed. Thus the company has to pay (USD $100 \times 5 \times 76/100$) as interest payment.

At the end of the second year, the company has to pay 20 million dollars as amortisation plus the interest payment. Now the interest payment will be calculated on 80 million dollars (USD 100 million - USD 20 million). Since in the first year, 20 million dollars as amortisation has been repaid back.

So in this way, the company has to meet its commitments over the 5 financial years. The amount of amortisation is fixed and the interest payment will depend on the amount of money repaid back as amortisation.

TABLE-4.7

Exchange Rates and LIBOR Rates over the years and their by 10%

Years	Exchange rate	Exchange rate depreciates by 10%	LIBOR rate	LIBOR rate increases by 10%
2007-08	40.241	4.0241	3.05	3.35
2006-07	45.285	4.52849	5.25	5.77
2005-06	44.274	4.42735	5.27	5.80
2004-05	44.932	4.49315	3.76	4.13
2003-04	45.952	4.59516	1.79	1.96
2002-03	48.395	4.83953	1.23	1.35
2001-02	47.692	4.76919	1.87	2.05
2000-01	45.684	4.56844	3.73	4.10

We have assumed that if the exchange rate would have depreciated by 10% then what would be the considerable impact on the profitability of the companies. Due to the depreciation of the exchange rate, the companies would have to pay 10 to 12 crores of rupees more as shown in the table no.4.8. Though the extra amount of money is quite significant enough which the companies have to commit if the exchange rate would

Table-4.8

Fixed Interest Rate and Change in Exchange Rate

Amtek Auto Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+200 Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	60,000,000							
2005-06		120.14	12000000	5.76	3456000	15456000	6.84	5.69
2006-07		218.34	12000000	5.76	2764800	14766274	6.69	3.06
2007-08		322.05	12000000	5.76	2073600	14074705	5.66	1.75

Ashok Leyland Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+200 Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	100,000,000							
2005-06		452.30	20000000	5.76	5760000	25760000	11.4	2.52
2006-07		526.72	20000000	5.76	4608000	24610456	11.1	2.11
2007-08		638.15	20000000	5.76	3456000	23457842	9.44	1.47

Tata Teleservices (Maharashtra) Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+200 Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	125,000,000							
2005-06		-540.21	25000000	5.76	7200000	32200000	14.3	-2.63
2006-07		-309.91	25000000	5.76	5760000	30763070	13.9	-4.49
2007-08		-124.81	25000000	5.76	4320000	29322303	11.8	-9.45

Table-4.8
Fixed Interest Rate and Change in Exchange Rate (contd)

G T L Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+200 Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	63,371,615							
2005-06			12674323	5.76	3650205	16324528	7.22	
2006-07		43.65	12674323	5.76	2920164	15596043	7.06	16.18
2007-08		126.59	12674323	5.76	2190123	14865613	5.98	4.72
Sterling Biotech Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+200 Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	90,000,000							
2005-06		145.30	18000000	5.76	5184000	23184000	10.3	7.06
2006-07		181.32	18000000	5.76	4147200	22149410	10	5.53
2007-08		279.11	18000000	5.76	3110400	21112058	8.5	3.04
Bharat Forge Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+200 Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	15,000,000							
2005-06		314.96	3000000	5.76	864000	3864000	1.71	0.54
2006-07		363.95	3000000	5.76	691200	3691568	1.67	4.59
2007-08		396.98	3000000	5.76	518400	3518676	1.42	3.56

Table-4.8
Fixed Interest Rate and Change in Exchange Rate (contd)

Jindal Steel and power	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+200 Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	50,000,000							
2005-06		727.85	10000000	5.76	2880000	12880000	5.7	0.7835543
2006-07		944.84	10000000	5.76	2304000	12305228	5.57	5.89
2007-08		1502.51	10000000	5.76	1728000	11728921	4.72	3.14

Cadila Healthcare Limited#	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+200 Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	12,207,116							
2005-06		187.90	2441423	5.76	703129.87	3144553	1.39	0.74
2006-07		231.90	2441423	5.76	562503.89	3004227	1.36	5.86
2007-08		276.90	2441423	5.76	421877.92	2863526	1.15	4.16

have depreciated by 10%, yet the companies have been in a comfortable position for such adverse situations. Leaving one company, all other companies have been making such a huge profit that such situations can hardly cause any serious problem. Even looking at the extra amount of money to be paid (due to the change in exchange rate) as a percentage of profit before tax (PBT), we find that the percentages are way below 8%. But for the financial year 2006-07, this percentage in case of GTL Ltd has been around 16%. It is due to the fact that the company has experienced its lowest profit in this financial year. In other years it has made huge profits. Thus, we can say that the companies have been making such huge profits that it would not have been a serious concern for the companies in such situations of volatile exchange rate.

ii) In the second case, we have assumed that the exchange rate depreciates by 10% with floating interest rate. Here the floating interest rate signifies that the companies have to make the interest payment based on the LIBOR rate prevailing in the current financial year. So in this case, the LIBOR rates to be considered are 5.27%, 5.25% and 3.04% for the financial year 2005-06, 2006-07 and 2007-08 respectively. Adding 200 basis points for 2005-06 and 2006-07 and 150 basis points for 2007-08, the total rate of interest rate are 7.80%, 7.77% and 4.54% for the financial years 2005-06, 2006-07 and 2007-08 respectively. Like the first case, here also the companies need to meet the commitments in a similar way which is shown in the table no.4.9. But the total payments which include amortisation plus the interest payments for the financial year 2005-06 and 2006-07 are more than the previous case (i), since the interest payments are more. It is due to the fact that the LIBOR rates in the financial years 2005-06 and 2006-07 have increased by 40% compared to the financial year 2004-05. As the LIBOR rate declined by almost 20% in financial year 2007-08 compared to financial year 2004-05, hence the total payments reduced compared to the previous case of the fixed interest rate for the financial year 2007-08. Here also we find that the profits of the companies have been so huge that such situations would not have worried the companies.

iii) In the third case, we have assumed that the exchange rate depreciates by 10% and LIBOR rate increases by 10% with floating interest rate. Since we have assumed that

LIBOR rates increases by 10%, so the LIBOR rates would be 5.80%, 5.77% and 3.35% for financial years 2005-06, 2006-07 and 2007-08 respectively. Adding the necessary basis points they are 7.80%, 7.77% and 4.54% for the financial years 2005-06, 2006-07 and 2007-08 respectively. The interest payments for the financial years 2005-06 and 2006-07 for which a 10% rise in interest rate is assumed are greater (shown in table 4.10) than those in the previous case when we assumed fixed interest rates, as the LIBOR rates were higher than that of the financial year, 2004-05. It is the 10 % rise in the LIBOR rates that is assumed which resulted in difference between case (iii) and case (ii). Like case (ii), the interest payment is less than the fixed interest case for financial year 2007-08 since the LIBOR rate in 2007-08 was lower than that in 2004-05. The LIBOR rate in the financial year, 2007-08 was almost 20% lower than the financial year, 2004-05. So a 10% rise in interest rate as assumed, still resulted in a lower interest rate and hence the lower interest payment. Here also the picture is similar, the profits of the companies have been so huge that hostile situations would not have worried the companies.

TABLE-4.9
FLEXIBLE INTEREST RATE AND CHANGE IN EXCHANGE RATE

Amtek Auto Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	60,000,000							
2005-06		120.14	12000000	7.27	4364160	16364160	7.244	6.03
2006-07		218.34	12000000	7.25	3480763	15480763	7.010	3.21
2007-08		322.05	12000000	4.55	1636438	13636438	5.487	1.70

Ashok Leyland Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	100,000,000							
2005-06		452.30	20000000	7.27	7273600	120749773	12.074	2.66
2006-07		526.72	20000000	7.25	5801272	25801272	11.684	2.21
2007-08		638.15	20000000	4.55	2727396	22727396	9.145	1.43

Tata Teleservices (Maharashtra) Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	125,000,000							
2005-06		-540.21	25000000	7.27	9092000	34092000	15.093	-2.79
2006-07		-309.91	25000000	7.25	7251590	7251590	14.605	-4.71
2007-08		-124.81	25000000	4.55	3409245	3409245	11.432	-9.15

TABLE-4.9
FLEXIBLE INTEREST RATE AND CHANGE IN EXCHANGE RATE (CONTD)

G T L Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	63,371,615							
2005-06			12674323	7.27	4609397.77	17283721	7.652	
2006-07		43.65	12674323	7.25	3676359.74	16350683	7.652	17.53
2007-08		126.59	12674323	4.55	1728394.89	14402718	5.795	4.57

Sterling Biotech Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	90,000,000							
2005-06		145.30	18000000	7.27	6546240	24546240	10.867	7.47
2006-07		181.32	18000000	7.25	5221144.8	23221145	10.515	5.79
2007-08		279.11	18000000	4.55	2454656.4	20454656	8.231	2.94

Bharat Forge Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	15,000,000							
2005-06		314.96	3000000	7.2736	1091040	4091040	1.811	0.57
2006-07		363.95	3000000	7.2736	870190.8	3870190.8	1.752	0.48
2007-08		396.98	3000000	4.55	409109.4	3409109.4	1.371	0.34

TABLE-4.9
FLEXIBLE INTEREST RATE AND CHANGE IN EXCHANGE RATE (CONTD)

Jindal Steel and power								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	50,000,000							
2005-06		727.85	10000000	7.2736	3636800	13636800	6.037	0.82
2006-07		944.84	10000000	7.2736	2900636	12900636	5.842	0.61
2007-08		1502.51	10000000	4.55	1363698	11363698	4.572	0.30

Cadila Healthcare Limited#								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	12,207,116							
2005-06		187.90	2441423	7.2736	952272.216	3329319.9	1.474	0.78
2006-07		231.90	2441423	7.2736	759453.401	708167.99	1.426	0.61
2007-08		276.90	2441423	4.55	355243.621	2774359.5	1.116	0.40

TABLE-4.10
CHANGE IN FLEXIBLE INTEREST RATE AND CHANGE IN EXCHANGE RATE

Amtek Auto Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	60,000,000							
2005-06		120.14	12000000	7.8	4680576	16680576	7.385	6.146995
2006-07		218.34	12000000	7.776749	3732840	15732840	7.124	3.263076
2007-08		322.05	12000000	4.850226	1746081	13747800	5.532	1.740071

Ashok Leyland Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	100,000,000							
2005-06		452.3	20000000	7.80096	7800960	27800960	12.308	2.721203
2006-07		526.72	20000000	7.776749	6221399	26221399	11.874	2.254386
2007-08		638.15	20000000	4.850226	2910136	22913000	9.220	1.46359

Tata Teleservices (Maharashtra) Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	125,000,000							
2005-06		-540.21	25000000	7.80096	9751200	34751200	15.385	-2.84806
2006-07		-309.91	25000000	7.776749	7776749	32776749	14.842	-4.78942
2007-08		-124.81	25000000	4.850226	3637670	28641250	11.	-9.35414

TABLE-4.10
CHANGE IN FLEXIBLE INTEREST RATE AND CHANGE IN EXCHANGE RATE (contd)

G T L Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	63,371,615							
2005-06			12674323	7.80096	4943594	17617917	7.8	
2006-07		43.65	12674323	7.776749	3942601	16616924	7.254	16.62062
2007-08		126.59	12674323	4.850226	1844200	14520338.9	5.843	4.675646

Sterling Biotech Ltd.								
	ECB in \$	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	90,000,000							
2005-06		145.3	18000000	7.80096	7020864	25020864	11.077	7.62395
2006-07		181.32	18000000	7.776749	5599259	23599259	10.686	5.893944
2007-08		279.11	18000000	4.850226	2619122	20621700	8.298	3.01168

Bharat Forge Ltd.								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	15,000,000							
2005-06		314.96	3000000	7.80096	1170144	4170144	1.846	0.586106
2006-07		363.95	3000000	7.776749	933209.9	3933210	1.781	0.48938
2007-08		396.98	3000000	4.850226	436520.3	3436950	1.383	0.352889

TABLE-4.10
CHANGE IN FLEXIBLE INTEREST RATE AND CHANGE IN EXCHANGE RATE (contd)

Jindal Steel and power								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	50,000,000							
2005-06		727.85	10000000	7.80096	3900480	13900480	6.154	0.845531
2006-07		944.84	10000000	7.776749	3110700	13110700	5.937	0.628371
2007-08		1502.51	10000000	4.850226	1455068	11456500	4.610	0.310807

Cadila Healthcare Limited#								
	ECB in USD	Profit Before Tax(CR)	Amortisation	Libor+ Basis Points	Interest payment	A+I	Extra rupee to be paid	Extra rupee as % of PBT
	12,207,116							
2005-06		187.9	2441423	7.80096	952272.2	3393695	1.502	0.799361
2006-07		231.9	2441423	7.776749	759453.4	3200877	1.449	0.625054
2007-08		276.9	2441423	4.850226	355243.6	2797016.4	1.125	0.411737

CONCLUSION:

India has been witnessing a dramatic increase in external debt over the past few years. The long term debt has occupied a significant share of around 80% of the total external debt. The debt due to ECB has been around 30-35% of the total long term debt and around 25-30% of the total debt. So the borrowing companies who have been accessing ECB were not servicing their debt properly resulting in increase in the outstanding bill of the ECB. This is the macro picture which our country is experiencing at this moment. However, looking at this picture we have raised certain questions regarding the companies involved in borrowing from the external markets. The findings are as follows: In the first section of the Third chapter, we have noticed that all the ECB companies as a whole have not been net earners of foreign exchange over the past 3-4 years. The initial years of post 2000, they were associated with net earning of foreign exchange but the amounts of net foreign exchange earned were very negligible. The vast majority of the companies have not been net earners of foreign exchange. This implies that most of the companies have not been earning foreign exchange to meet the future commitments in terms of amortisation plus interest payments. On close inspection we found that more or less all the companies have not been net earners of foreign exchange and that some companies have been consistent net spenders of foreign exchange post 2000. The machinery sector has been the sector where companies have consistently been net spenders of foreign exchange.

In the second section, we find that the ECB companies have been more engaged in trade across the borders than the Non-ECB companies. But the ECB companies have been mostly dependent on the domestic market. Since the most of their sales have come from domestic markets their foreign exchange earning were limited.

In the third section, we saw that the ECB companies actually passed the stress tests we devised. The companies could have strongly withstood any kind of hostile situation such as vulnerabilities associated with the exchange rate and the interest rate. This is due to the huge profits which the companies have made in the domestic markets.

So, on the one hand we see that the companies have been net spenders of foreign exchange and on the other; they are mostly dependent on the domestic markets for most of their profits. Moreover, any hostile situation like volatilities associated with the

exchange rate and the interest rate could have been very easily taken care of due to the huge profits of these companies. Since these companies have been net spenders of foreign exchange, the brunt of the foreign exchange outflows to service the debt repayments befall on the nation. The foreign exchange reserves of our country would be at stake in situations such as an increase in the exchange rate or in the interest rate. This would inevitably lead to the depletion of foreign exchange reserves.

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