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# International Migration, Remittances and its Macroeconomic Impact on Indian Economy*

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## Abstract

*This paper tried to study the impact of remittances on various macroeconomic and developmental aspects for the Indian economy. For this, the data regarding remittances and some of the macroeconomic variables like GDP, PFCE, GDFC, savings, FDI, FII, export, import and balance of trade deficit etc have been analyzed for the period 1971-2008. The study shows that remittances have been consistently increasing at very fast rate for the last 15 years which have significant implications on the above mentioned macroeconomic variables. Through this study, the importance of remittances as a source of external development finance has been discussed. At last, some of the regulatory frameworks governing the flow of remittances have also been discussed.*

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*"The Sun doesn't shine or set anywhere without shining on some members of Indian Community"*
*Motwani K Jagat (1994)*

# I. Introduction

International migration occurs when the citizens of a country cross their national boundaries and stay in the host countries for a certain period of time for various purposes especially for employment and education. This will have a significant developmental impact on the guest as well as the host countries; economically, politically and socially. When it comes to migration and development, both are said to be interdependent on each other because of the link which exists between them. Like, migration can help in the development process of any country and development can affect the migration and migration policy. In fact, migration, with the help of remittances, can contribute positively to the developmental activity of a country, including economic growth, poverty reduction, social empowerment and technological progress.

According to the International Organization of Migration (2008), there are more than 200 million migrants around the world today and there is enough evidence to show that the rate of international migration has actually increased at a time when the world is getting more globalised. The total number of citizens that have emigrated from India is about 10 million, which works out to just about a per cent of her population

India now has the distinction of being the largest remittance (in absolute terms) receiving country in the world. There has been a tremendous growth in private transfers to India from just about USD 2 billion in 1989-00 to about USD 52 billion in 2009-10. The sheer size of these transfers could be understood from the fact that even in 2007-08 when India had record net FDI inflows, private transfers still accounted for over 1.2 times the Net FDI to India. Further, remittances now account for about 5.63 per cent of India's GDP although in 1991 it accounted for just 0.8 per cent. They have offset India's merchandise trade deficit to a large extent, thereby keeping the current account deficits modest through the 1990s. Remittances are also one of the least volatile inflows in either the current or capital accounts of India's BOP.

The literature[1] on migration identifies four channels through which migration can actually impact the economic performance of the sending country. The first channel captures how the *prospect* of emigration affects the expected return on human capital. The central idea is that the prospect of emigration increases human capital investments, but a fraction of the additional human capital chooses not to leave or does not qualify to leave. The second impact is the absence of highly skilled migrants from the sending country. Research on the absence channel has the longest pedigree. The focus is on how the absence of part of a country's skilled nationals affects the domestic economy. The third channel focuses on the role of the diasporas as a source and facilitator of international business and remittances. This is a burgeoning literature that includes survey work on diasporic networks, empirical estimation of the effect of diasporas and trade, and theoretical exploration of the intermediation function. The general finding is that diasporic networks have a significant effect on international business. Finally, work on the return channel has concentrated on the determinants and selectivity of, and the impact of emigration on returnee's human capital and earnings. In the present paper we focus on the third channel of remittances and its macro economic impact on Indian economy.

The paper is divided into five sections. Given the introductory section, in the second section we discuss the key objectives and methodology of the study. A historical perspective of migration and remittances to the Indian economy are explored in the third section. In the fourth section we examine the long term trends in remittances to the Indian economy and its macro economic impact. The fifth section examines the causative factors behind the remittance boom to the Indian economy and the final section concludes the study.

## II. Importance of the Study, Objectives and Methodology

The broad objective of the study is to examine the trend in long term remittances to the Indian economy during the period 1971-2008. We have taken the starting period as 1971, because the phenomenon of International migration actually started around that time period with large inflows of laborers from India to Middle-East countries. During this

[1] See Desai et al (2009) for a detailed review of this literature.

period, the increase in oil price led to economic boom there which subsequently increased the demand for labor in those countries.

As far as the role of remittances is concerned, the most immediate and direct benefit of International migration is the remittances that the migrants send to their home countries. It is estimated that remittance transfer to developing countries are around USD 328 billion which has more than tripled in the last 10 year period (Sasikumar & Hussain, 2007). Since it is more than any other type of stable foreign investment, such a large amount has acquired special importance for the Indian economy. It is increasingly recognized that substantial gains from remittances can be realized in terms of growth, investment, human capital formation, technological advancement and poverty reduction, if it is utilized effectively. More precisely, that gain from remittances can be realized at both the macro level (effects on the national economy) and the micro level (to the recipient region and households). The developmental effects of remittances depend mainly on the magnitude of its value and on how productively the receiving economy and household use it.

At macro level, the most direct and significant impact of remittances is on the volume of foreign exchange reserves. Remittances, as an important source of external finance, can serve as an engine of economic growth. Since remittances are the part of balance of payment (BOP) account, the increase in it can reduce the BOP deficit (particularly current account deficit) of the country (remittances have provided significant support to India's BOP position for the last three decades). Reduction in BOP deficit can create conducive environment for foreign investment in the country. Apart from that, it can also solve the problem of financial constraint faced by many small scale enterprises in India (by utilizing migrant's family small savings if the financial institutions in the country are strong enough). The expansion of small scale enterprises (also through increase in consumption expenditure by households) can increase the indirect tax revenue of the government. All of these have positive impact on the overall GDP of the country as a whole. However, there are some negative incentive effects acting at macro level. If remittances are relatively large and a large share is spent on non-tradable (particularly housing and land) - the country is likely to suffer from *Dutch disease* effects which results into appreciation of real exchange rate, rendering export less competitive. The

country's principal export could become cheap factor- labor – rather than labor intensive products (Kapur, 2003).

At the micro level (regional and household level), remittances have had a considerable impact on regional economies within India. The most recognizable example is that of Kerala. A study (Kannan and Hari, 2002) for Kerala concludes that remittances to Kerala's economy are around 21 per cent of the state income in the 1990s. It also reports that an increase in per capita income as a result of remittances has contributed to an increase in consumption expenditure in Kerala.

At the household level, the impact will be on the lives of the migrants' families (as it has been found by many studies that remittances may improve the income distribution and quality of life beyond what other available development approaches could deliver). The migrant's family can utilize the money to raise their standard of life by investing in consumption, education, health and some other productive activities (investment in agriculture inputs if the family is traditionally engaged in agro-based activity). All of these expenditures have multiplier effect. Because, as evidenced through many studies, the money which the migrants send to their home countries are used for consumption (durables and non-durables both), education, health, asset creation (building house and buying lands), loan repayments, small investments, savings etc. If these remittances are used for consumption purpose like for buying various commodities of daily uses, it can develop and expand the manufacturing sector of the country by increasing the demand for the goods from this sector. The increase in the demand from that very sector results into increase in the production which again results into increase in the demand for labor. The employment of the remaining unemployed labor in the manufacturing sector will increase their income level. The increase in the income level of the labor employed will further expand this sector. This process keeps on going. But if the remittances are invested in some productive activity within the household like investment in agriculture for buying some inputs or starting an entrepreneurial activity by setting up a business, it'll have much stable and long lasting impact on the income level of the household.

The impact of remittances can also be realized beyond the family of the migrants. As we know that the money that the migrants send to their home country is not spent completely. Some part of it is deposited in the bank also. Thus, the migrant's saving in the bank can

serves as a means for financing loan to other households. In a way, we can say that remittances provide capital to small entrepreneur and thereby entrepreneurship[2].

Given the above discussion on the role of remittances at the macro and micro level the present study can be justified on following grounds.

- There has been very few comprehensive study[3] from the period 1971-2008. The earlier studies are either from 1971-1990 (Nayyar, 1994) or from 1990-2005 (Sasikumar & Hussain, 2007) for India.
- With this paper, we are also going to discuss the role of remittances as a source of external development finance.
- Along with the analysis, this study is going to cover some regulatory aspects of remittances and some development over the year which is responsible for the flow of remittances through formal channels rather than informal channels.

The method of estimating remittances is direct. In the balance of payment statistics published by the Reserve bank of India (RBI) in '*Handbook of Statistics on Indian Economy*', remittances can be identified as credit in the current account as 'net private transfer'[4]. In addition to that, *'IMF's Balance of Payment Statistics'*[5] is also one of the important sources. The RBI's data on private transfers are available for the period 1990-2008, and the IMF's data are available for 1975-2008. For this study, we will be focusing only on the aggregate remittances from RBI only.

One limitation of the reported data for remittances is that it is probably underestimated because it does not include remittances sent through informal channels. Such transactions

[2] K.M. Abdul Aziz and M. Begum, *"International Remittances: A source of Development Finance"*
[3] Kannan & Hari, 2002 gives a comprehensive study for the state of Kerala in India.
[4] Private transfer constitutes remittances by non-residents for family maintenance, repatriation of savings by Indian resident's abroad and personal gift and donation to religious and charitable institutions in India. In addition, other components such as import of gold and silver brought in as baggage by returning Indian and local withdrawals were included under private transfer receipt since 1992-93 to 1996-97. (RBI Bulletin, January 2001)
[5] The IMF's data are available separately for two components: worker's remittances and other transfer. Other transfers include charitable and religious contributions, and gifts etc.

are often known as "hawala"[6]. In some countries these flows are estimated to be very high. For India, estimates have put the remittances through hawala at about USD 6 billion a year (Reddy, 1997). But due to changes in the policy of government and increase in the use of formal channel in the 1990s, the problem of underestimation has almost gone.

After estimating remittances, the data on India's macroeconomic variables like gross domestic product at market price, gross domestic saving, gross domestic capital formation, total volume of exports, imports and foreign direct investment, foreign institutional investment, foreign exchange reserve were compiled from various issues of *'RBI Handbook of Statistics on the Indian Economy'*. The compilation and analysis of these macroeconomic variables is necessary because of their significant impact on the economy as a whole and their direct/indirect link with remittances in particular.

## III. Historical Perspective on Migration and Remittances to Indian Economy

Migration of labor across national boundaries is nothing new for India and it began centuries ago. The contact with the Persian Gulf region and south-east Asia, in terms of both trade in goods and movement of people, goes back several centuries. The migration of workers on a significant scale came much later, to begin within the colonial era and then in independent era. In independent era, the first phase of international migration began in the early 1950s which was characterized by a movement of persons with technical skills and professional expertise to the industrialized countries like USA, UK, and Canada etc. on a much smaller scale. The second phase of International migration was largely to the oil-exporting countries of the Middle-East which is a recent phenomenon. It began in mid 1970s and peaked in early 1980s as the dramatic increase in the oil price led to and economic boom in these labour scarce countries. A large number of laborers who migrated during this period were skilled and semi-skilled workers in manual or clerical occupations and their migration in these areas was temporary in nature (Nayyar, 1994).

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[6] Hawala (also known as hundi) is an informal value transfer system based on the performance and honour of a huge network of money brokers, which are primarily located in the Middle East, North Africa, the Horne of Africa, and South Asia.

The third phase of international migration has no any limitations. Due to globalization and liberalization policy of the government, the volume of international migration has spread all over the world. The main reason for the phenomenal increase in the volume of international migration in the 1990s is the economic reform in the Indian Economy and Information Technology (IT) revolution.

## III. Trends in Remittances: The Quantum Jump in the Globalization Era.

In the balance of payment statistics, remittances to India can be identified as credit on account of net private transfer payments in the current account. Based on these estimate of remittances, a time series data from the period 1971-2008 has been constructed which is given in table 1.

**Figure 1 Trend in Remittances to Indian Economy**

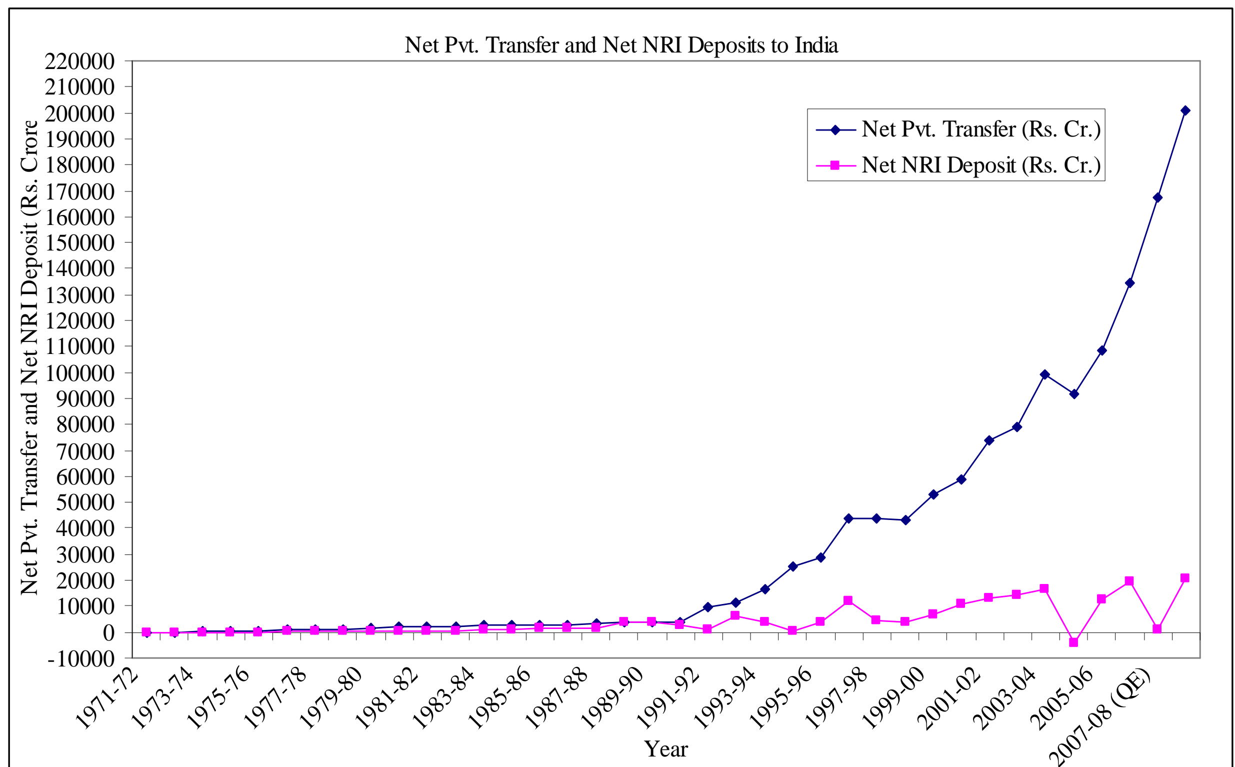


**Table 1: Net Private Transfers (Remittances) and net NRI deposits to Indian Economy (Rs. Cr.)**

| Year | Net Pvt. Transfers (Remittances) | Net NRI Deposits | GDP at MP (Constant Price 1999-00) | Remittances as percentage of GDP |
|---|---|---|---|---|
| 1971-72 | 104 | 0 | 525584 | 0.02 |
| 1972-73 | 99 | 0 | 522698 | 0.02 |
| 1973-74 | 146 | 0 | 540045 | 0.03 |
| 1974-75 | 229 | 0 | 546443 | 0.04 |
| 1975-76 | 441 | 36 | 596428 | 0.07 |
| 1976-77 | 755 | 167 | 606301 | 0.12 |
| 1977-78 | 1102 | 200 | 650311 | 0.17 |
| 1978-79 | 1093 | 156 | 687435 | 0.16 |
| 1979-80 | 1754 | 162 | 651430 | 0.27 |
| 1980-81 | 2125 | 178 | 695361 | 0.31 |
| 1981-82 | 2025 | 206 | 737078 | 0.27 |
| 1982-83 | 2417 | 383 | 762622 | 0.32 |
| 1983-84 | 2637 | 709 | 818288 | 0.32 |
| 1984-85 | 2967 | 879 | 849573 | 0.35 |
| 1985-86 | 2701 | 1767 | 894041 | 0.30 |
| 1986-87 | 2976 | 1650 | 936671 | 0.32 |
| 1987-88 | 3499 | 1840 | 973739 | 0.36 |
| 1988-89 | 3841 | 3636 | 1067582 | 0.36 |
| 1989-90 | 3798 | 4000 | 1131111 | 0.34 |
| 1990-91 | 3712 | 2756 | 1193650 | 0.31 |
| 1991-92 | 9382 | 1008 | 1206346 | 0.78 |
| 1992-93 | 11226 | 6097 | 1272457 | 0.88 |
| 1993-94 | 16514 | 3780 | 1333123 | 1.24 |
| 1994-95 | 25417 | 539 | 1421831 | 1.79 |
| 1995-96 | 28660 | 3821 | 1529453 | 1.87 |
| 1996-97 | 43969 | 11894 | 1645037 | 2.67 |
| 1997-98 | 43765 | 4325 | 1711735 | 2.56 |
| 1998-99 | 43242 | 4060 | 1817752 | 2.38 |
| 1999-00 | 53132 | 6709 | 1952035 | 2.72 |
| 2000-01 | 58811 | 10561 | 2030711 | 2.90 |
| 2001-02 | 73633 | 13127 | 2136651 | 3.45 |
| 2002-03 | 79229 | 14424 | 2217133 | 3.57 |
| 2003-04 | 99165 | 16869 | 2402727 | 4.13 |
| 2004-05 | 91971 | -4439 | 2602065 | 3.53 |
| 2005-06 | 108565 | 12457 | 2844942 | 3.82 |
| 2006-07 | 134608 | 19574 | 3120031 | 4.31 |
| 2007-08 | 167501 | 706 | 3402716 | 4.92 |
| 2008-09 | 203209 | 20431 | 3609425 | 5.63 |

Source: RBI Handbook of Statistics on the Indian Economy, 2009-10

From the Table 1 and Figure 1, it is clear that the magnitude of remittances to India increased steadily during the 1970s; remained more or less flat in the 1980s and picked up sharply in the 1990s (the sharpest increase took place during 1991-97). The remittances to

India increased approximately 20-fold during the period 1991-2008, making India the largest recipient of remittances. In the absolute term, remittances are around USD 52 billion which is more than any type of capital flow to India including FDIs, FIIs etc. In terms of percentages of GDP at market price, remittances were around 0.02 percent in 1971, 0.78 percent in 1991 and 5.63 percent in 2008.

There are many factors which could be attributed for such a phenomenal rise in remittances during the period 1971-2008:

- The phenomenal rise in remittances resulting from international labor migration until the mid-eighties may be attributable entirely to the economic boom in the oil-exporting countries and the associated inflow of remittances from Indian workers in the Middle-East. But from the 1980s, the share of the Middle-East countries in the total remittances declined from 77 per cent to around 61 percent in 1990-91 to and further to 22 per cent in 2003 (Sasikumar & Hussain, 2007). The reason for such a decline in the share of Middle- East could be attributable to the geographical spread of the migrants throughout the world.
- From the early nineties, the increase in remittances has been astonishing (see figure 1) which is due to the liberalization of the exchange rate system fuelled by the large number of Indian professional migration to the USA due to information technology revolution. The market determined exchange rate regime and current account convertibility instituted since the early 1990s have had a considerable influences on remittances inflows[7]. The liberalized exchange rate caused the remittances to flow through formal channels rather than informal channels (one of the reason for increase in remittances figure)[8].
- In the 1990s, migration to USA, Canada, and Australia increased significantly, particularly of information technology professionals. The professional migration to USA seems to have massively preferred the remittances route to the NRI deposits which could be contrasted with the 1980s when NRI deposits (due to

[7] The period after independent was followed by a fixed exchange rate system. However, the adverse BOP situation in the beginning of the 1990s necessitated significant liberalization in the exchange rate management system. A dual exchange rate system was instituted under this 40percent of exchange earning have to be surrendered at an official rate determined by the RBI and the balance 60percent earning was to be converted at market rates.

[8] It was argued that such policy initiative have significantly reduced and even nullified the premium commanded by unofficial exchange rate and thus acted as a major factor for channelising the remittances through formal routes (Debabrata and Kapur, 2003)

interest rate differential and exchange rate guarantee) were the preferred mode of the professional migrants. With gradual withdrawals of the incentives structures for NRI deposits, there was a strong shift to remittances. The speculative nature of these deposits was reflected in the massive fluctuations in the net NRI deposits in the 1990s (see table 1). Due to the massive fluctuations and speculative nature of the NRI deposits, remittances have become a preferred mode of transfer for short term investment (Sasikumar and Hussain, 2007).

- Despite the financial crisis, there was sharp increase in remittances to India in 2008 in absolute term. The reason for such an increase in the remittances despite the crisis can be attributed to a switch regarding use of remittances from consumption to investment purpose. The falling asset price, rising interest rate differentials, and a depreciation of the local currency have attracted investment from the migrants (Ratha, Mahapatra and Silval, 2009).
- Remittances flows to all developing countries including India was expected to decline in 2009 due to the global financial crisis around the world. This argument was supported by the trend of reverse migration to India especially from the Middle-East countries in the period 2009-10. Middle-East countries couldn’t escape themselves from the global financial crisis. The financial crisis around the world was one of the reasons attributed for Dubai-Crisis in December 2009 which is basically due to collapse of real estate sector in the Middle-East countries. The Dubai crisis, to some extent, adversely impacted the remittance flow to India especially the state of Kerala (Times of India, 28th Nov. 2009). But from the recent data, it was found that remittances actually increased from USD 44 billion in 2008-09 to USD 52 billion in 2009-10.

## IV. Remittances as a source of external development finance

After discussing remittances in terms of numbers, in this section we’ll discuss its impact on the developmental aspect. In recent period, remittances are said to be stable source of development finance and contribute significantly in the economic development of any underdeveloped country at both micro and macro level. At the macro level, it is the cheapest, largest, risk less and least volatile source of external development finance.

In table 2, we compared the remittances with other types of capital flow like net NRI deposits, foreign direct investment (FDI) and foreign institutional investment (FII). It is largest in terms of foreign exchange reserve received. The share of remittances in terms of foreign exchange reserve is largest, even larger than foreign direct investment. As can be seen from the table, remittances were 19% of total foreign reserve in 2009-10, which is rather low from the earlier period (see table) due to increase in the share of FDI, FII etc.

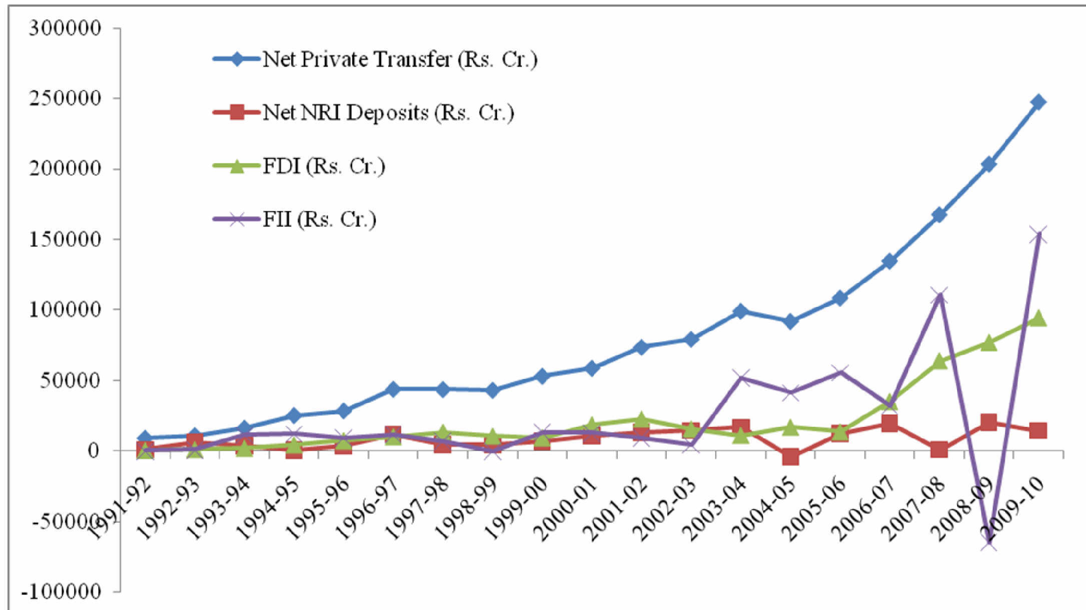
**Table 2: Major Capital Flows to Indian Economy (Rs. Cr.)**

| Year | Net Private Transfer (Remittances) | Net NRI Deposits | FDI* | FII | Foreign Exchange Reserve | Remittances as percentage of Foreign exchange Reserve |
|---|---|---|---|---|---|---|
| 1991-92 | 9382 | 1008 | 316 | 10 | 23850 | 39.34 |
| 1992-93 | 11226 | 6097 | 965 | 748 | 30744 | 36.51 |
| 1993-94 | 16514 | 3780 | 1838 | 11188 | 60420 | 27.33 |
| 1994-95 | 25417 | 539 | 4126 | 12007 | 79781 | 31.86 |
| 1995-96 | 28660 | 3821 | 7172 | 9192 | 74384 | 38.53 |
| 1996-97 | 43969 | 11894 | 10015 | 11758 | 94932 | 46.32 |
| 1997-98 | 43765 | 4325 | 13220 | 6794 | 115905 | 37.76 |
| 1998-99 | 43242 | 4060 | 10358 | -257 | 138005 | 31.33 |
| 1999-00 | 53132 | 6709 | 9338 | 13112 | 165913 | 32.02 |
| 2000-01 | 58811 | 10561 | 18406 | 12609 | 197204 | 29.82 |
| 2001-02 | 73633 | 13127 | 22630 | 9290 | 264036 | 27.89 |
| 2002-03 | 79229 | 14424 | 15594 | 4504 | 361470 | 21.92 |
| 2003-04 | 99165 | 16869 | 10944 | 51898 | 490129 | 20.23 |
| 2004-05 | 91971 | -4439 | 16745 | 41312 | 619116 | 14.86 |
| 2005-06 | 108565 | 12457 | 13425 | 55357 | 676387 | 16.05 |
| 2006-07 | 134608 | 19574 | 34910 | 31881 | 868222 | 15.50 |
| 2007-08 | 167501 | 706 | 63776 | 110619 | 1237965 | 13.53 |
| 2008-09 | 203209 | 20431 | 76831 | -65045 | 1283865 | 15.83 |
| 2009-10 | 247112 | 14253 | 94258 | 153967 | 1259665 | 19.62 |

*Data on FDI have been revised since 2000-01 with expanded coverage to approach international best practices. Data from 2000-01 onwards are not comparable with FDI data for earlier year. We have taken only to compare with the data of net private transfer.

Source: RBI Handbook of Statistics on the Indian Economy, 2009-10

**Figure 2: Major Capital Flows to Indian Economy**




Remittances are also called the most risk less and least volatile source of external development finance due to several reasons. As it can be observed from figure 2, foreign capital tends to flow more in favorable time and less in bad time, the situation can be explained by taking the example of inflow of FIIs in recent times (there were large capital outflow during the recent financial crisis) in India. But, remittances tend to react less violently and even become countercyclical (increases in bad times). For example, remittances to developing countries continued to rise steadily in 1998-2001 when private capital flow including FDI declined in the wake of East Asian Crisis (see figure 2).

Like FDI and FIIs, remittances can also be a great source of development finance both at micro and macro level but with different mechanism. As we know, the remittances sent by the migrants are basically used for consumption, creating assets, small savings and investment. The investments may be in terms of investment in education, health or setting up some small business. The investment in education and health can have positive impact on the human capital formation which will be beneficial for both the country and the family as a whole. The small savings by the migrant’s family can be an investment for the industrial sector if the financial institutions utilize it properly (IMF, 2008).

Since, we are discussing the role of remittances as a source of development finance; it is worthwhile to discuss the role of microfinance institutions (MFIs) in facilitating remittance flow. As we know MFIs play a significant role at the grass root level in the development process by providing credit to the poorest. Investments/Deposits in MFIs by the migrants can solve the credit problems and facilitate the development process at the grass root level. For this to happen, the focus of policy would be to induce MFIs to capture remittances to be in turn used to fuel productive activities. The basic policy initiative would be to enable migrant's fund to be transferred to entrepreneurs through these financial institutions (Sasikumar & Hussain, 2007).

Lastly, it is also observed that continuous remittance flow can create positive environment for credit and make a country creditworthy. This will enhance the country's access to international capital market (FIIs) for financing infrastructure and other development projects[9] (Ratha, 2007).

### IV.1. Remittances and its significance with macroeconomic variables

Apart from micro level activities at household level, remittances influence macro level activity through multiplier effect arising as a result of household consumption and investment activity. Remittances that are invested in productive activities by the households directly contribute to the output growth i.e. GDP growth of the country. Through this section, we would analyze the size of remittances flow with the dimensions of macro-economic aggregates, such as national income, consumption, savings and investment.

[9] The ratio of debt to export of goods and services, a key indebtedness indicator, would increase significantly if remittances were excluded from the denominator. Model based calculations using debt to export ratios that include remittances in the denominator indicate that including remittances in creditworthiness assessment would improve credit rating (Ratha & Mahapatra, 2007).

**Table 3 Remittances as a percentage of Macroeconomic variables**

| Year | Remittances as Percentage of (see appendix) | | | |
|---|---|---|---|---|
| | GDP at Market Price | Private Final Consumer Expenditure | Gross Domestic Saving* | Gross Domestic Capital Formation |
| 1971-72 | 0.02 | 0.26 | 1.43 | 1.34 |
| 1972-72 | 0.02 | 0.23 | 1.27 | 1.22 |
| 1973-74 | 0.03 | 0.28 | 1.34 | 1.29 |
| 1974-75 | 0.04 | 0.36 | 1.86 | 1.77 |
| 1975-76 | 0.07 | 0.67 | 3.11 | 3.13 |
| 1976-77 | 0.12 | 1.11 | 4.36 | 4.72 |
| 1977-78 | 0.17 | 1.41 | 5.51 | 5.95 |
| 1978-79 | 0.16 | 1.28 | 4.63 | 4.61 |
| 1979-80 | 0.27 | 1.90 | 7.24 | 7.07 |
| 1980-81 | 0.31 | 1.90 | 7.91 | 7.33 |
| 1981-82 | 0.27 | 1.57 | 6.55 | 6.04 |
| 1982-83 | 0.32 | 1.71 | 7.15 | 6.65 |
| 1983-84 | 0.32 | 1.58 | 6.92 | 6.49 |
| 1984-85 | 0.35 | 1.61 | 6.53 | 6.09 |
| 1985-86 | 0.30 | 1.34 | 5.06 | 4.53 |
| 1986-87 | 0.32 | 1.31 | 5.13 | 4.62 |
| 1987-88 | 0.36 | 1.38 | 4.84 | 4.42 |
| 1988-89 | 0.36 | 1.31 | 4.41 | 3.86 |
| 1989-90 | 0.34 | 1.15 | 3.58 | 3.21 |
| 1990-91 | 0.31 | 0.98 | 2.86 | 2.50 |
| 1991-92 | 0.78 | 2.15 | 6.65 | 6.49 |
| 1992-93 | 0.88 | 2.29 | 7.03 | 6.47 |
| 1993-94 | 1.24 | 2.93 | 8.69 | 8.48 |
| 1994-95 | 1.79 | 3.90 | 10.27 | 9.80 |
| 1995-96 | 1.87 | 3.81 | 9.85 | 9.19 |
| 1996-97 | 2.67 | 4.96 | 14.04 | 13.29 |
| 1997-98 | 2.56 | 4.53 | 12.04 | 11.34 |
| 1998-99 | 2.38 | 3.86 | 11.09 | 10.60 |
| 1999-00 | 2.72 | 4.24 | 10.97 | 10.50 |
| 2000-01 | 2.90 | 4.39 | 11.78 | 11.49 |
| 2001-02 | 3.45 | 5.02 | 13.77 | 14.14 |
| 2002-03 | 3.57 | 5.11 | 12.25 | 12.82 |
| 2003-04 | 4.13 | 5.83 | 12.08 | 13.06 |
| 2004-05 | 3.53 | 5.00 | 9.22 | 9.10 |
| 2005-06 | 3.82 | 5.28 | 8.84 | 8.53 |
| 2006-07 | 4.31 | 5.83 | 9.13 | 8.85 |
| 2007-08 | 4.92 | 6.45 | 9.41 | 9.08 |
| 2008-09 | 5.63 | 6.98 | NA | NA |

Source: RBI Handbook of Statistics on the Indian Economy, 2009-10

*Gross Domestic Saving= Household Sector + Private Corporate Sector + Public Sector (At constant Price)

When we examine the above data carefully, we come across two inferences explained below:

- Remittances inflows are small in relative term with many macroeconomic variables, which is not surprising for an economy like India. It's small enough to be treated as negligible during the 1970-90 i.e. pre-reform era. But the period after 1990 i.e. post reform era witnessed a significance increase. The relative importance of remittances picked up after the economic reform period, when remittance inflows increased substantially (See table 1).
- Although small, remittances inflows are by no means insignificant; remittances were around 5.63 percent of GDP, 6.98 percent of private final consumer expenditure in 2008-09 and 9.41 percent of gross domestic saving and 9.01 percent of gross domestic capital formation in 2007-08. These proportions kept on increasing (though gross domestic saving and gross domestic capital formation fluctuated during 2003-07) through the period 1970-2008.

Hence it must be stressed that such equivalence provides a hypothetical comparison. As we know, remittances are not included in net factor income from abroad and hence do not even enter into national income accounting (Nayyar, 1994). What we are trying to say is that if all remittances had been used for consumption, saving and investment, they would have accounted for 6.98 percent, 9.41 percent and 9.01 percent of GDP respectively. But there is no evidence at macro level which would enable us to allocate remittances by usual use, to consumption, savings, and investment. As argued by Nayyar (1994) -

*"It is neither feasible nor desirable to use evidence from micro level studies to distribute remittances between consumption and saving or investment at a macro level. The database is too much slender and uneven for the proportions to be used in a blow up exercise. What is worse, the result may be misleading. Such an approach can be attempted only if data are obtained through a systemic sample survey designed for the purpose; even then, the result would have to be interpreted with caution".*

Though the impact of remittances on income, consumption and investment seems to be marginal for the economy like India, but it is quite significant for the states like Kerala

and some particular regions of India[10]. As study by Kannan and Hari (2002) shows that remittance from migrants were 23 percent of NSDP in 2000 and there is also some possibility that in some district it might be around 40-50 percent of NSDP which might have experienced higher rate of migration.

Whatever the amount of remittances, it has the potential to raise the standard of living of the people from the migrants sending poorest regions by having an impact on their income, consumption and savings (discussed already). For these regions in Kerala, the major end use of remittances is household consumption, education, debt, construction and repair of buildings and bank deposits for 86 percent, 36 percent, 27 percent, 11 percent and 8 percent household respectively (Zachariah, et.al, 2002).

### IV.2. Remittances and Balance of Payment (BOP)

The most important macro-economic impact of remittances is on the BOP (particularly current account) and through that on the economy as a whole. Hence, it is necessary to consider the magnitude of remittances in the context of BOP. So, the significance of remittances in relation to the selected components of the BOP and their trend is given in the Table 4. It shows that the relative importance of remittances inflow increased very rapidly during 1970s, reached peak level during 1980s but fluctuated after 1990s but at higher level. Remittances were around on average 6.5 percent of the total export in the early 1970s and 20-35 percent of the total export in 1980s which were sufficient to finance around 20 percent of import bill and 50 percent of balance of trade deficit on average. During 1990s and after, remittances remained in the range of 22-46 percent of export earning which were sufficient to finance around 27 percent of the import bill (2003-04) but 16 percent of the import bill after 2003-04 (due to increase in the import bill significantly). As far as financing of Balance of trade deficit after 1990s is concerned, it was able to finance as much as much as double the deficit between the periods 1991-2003 (see Table 4). But after 2003-04, the impact of remittances begins to decline due to massive increase in volume of external trade. The main reason for increase in the volume of external trade after 2003 is due to expansion of the economy and increase in the country's integration with the world economy.

[10] These regions are Western Gujarat (migration to USA and Canada) and Eastern Uttar Pradesh (migration to Gulf country).

## Table 4 Remittances and Balance of Trade

| Remittances as percentage of (see appendix) | | | | |
|---|---|---|---|---|
| Year | Export | Import | Balance of trade deficit | Current a/c receipt |
| 1971-72 | 6.47 | 5.70 | -48.08 | 4.83 |
| 1972-73 | 5.02 | 5.30 | 95.10 | 3.98 |
| 1973-74 | 5.79 | 4.94 | -33.80 | 3.04 |
| 1974-75 | 6.88 | 5.07 | -19.24 | 5.31 |
| 1975-76 | 10.93 | 8.38 | -35.90 | 7.54 |
| 1976-77 | 14.68 | 14.88 | 1095.79 | 10.28 |
| 1977-78 | 20.38 | 18.31 | -179.98 | 13.48 |
| 1978-79 | 19.09 | 16.05 | -100.78 | 12.27 |
| 1979-80 | 27.33 | 19.18 | -64.39 | 16.23 |
| 1980-81 | 31.67 | 16.93 | -36.40 | 17.16 |
| 1981-82 | 25.94 | 14.88 | -34.90 | 15.03 |
| 1982-83 | 27.46 | 16.91 | -44.03 | 16.26 |
| 1983-84 | 26.99 | 16.66 | -43.51 | 15.82 |
| 1984-85 | 25.26 | 17.32 | -55.04 | 14.84 |
| 1985-86 | 24.79 | 13.74 | -30.82 | 14.39 |
| 1986-87 | 23.90 | 14.81 | -38.93 | 14.36 |
| 1987-88 | 22.32 | 15.73 | -53.26 | 14.02 |
| 1988-89 | 18.99 | 13.60 | -47.99 | 12.33 |
| 1989-90 | 13.73 | 10.75 | -49.52 | 9.46 |
| 1990-91 | 11.40 | 8.59 | -34.90 | 8.08 |
| 1991-92 | 21.30 | 19.61 | -246.31 | 13.90 |
| 1992-93 | 20.91 | 17.71 | -115.90 | 13.91 |
| 1993-94 | 23.68 | 22.59 | -493.01 | 15.69 |
| 1994-95 | 30.74 | 28.25 | -348.34 | 19.33 |
| 1995-96 | 26.95 | 23.36 | -175.64 | 17.29 |
| 1996-97 | 37.01 | 31.65 | -218.72 | 22.56 |
| 1997-98 | 33.64 | 28.39 | -181.78 | 20.23 |
| 1998-99 | 30.94 | 24.25 | -112.09 | 17.42 |
| 1999-00 | 33.30 | 24.69 | -95.43 | 18.26 |
| 2000-01 | 28.89 | 25.47 | -215.41 | 16.74 |
| 2001-02 | 35.23 | 30.03 | -203.51 | 19.17 |
| 2002-03 | 31.05 | 26.66 | -188.33 | 17.30 |
| 2003-04 | 33.80 | 27.61 | -150.84 | 18.41 |
| 2004-05 | 24.50 | 18.36 | -73.15 | 13.39 |
| 2005-06 | 23.79 | 16.44 | -53.22 | 12.71 |
| 2006-07 | 23.54 | 16.02 | -50.09 | 12.36 |
| 2007-08 | 25.54 | 16.55 | -46.99 | 13.37 |
| 2008-09 | 26.50 | 15.57 | -37.73 | 13.43 |

Source: RBI Handbook of Statistics on the Indian Economy, 2009-10

# Balance of Trade Deficit= Export-Import

* Current Account Receipt= Export + Invisible Receipt

More or less, the evidence seen in the above table shows that the remittances associated with international migration from India is indeed significant in the context of balance of payment. The remittances inflows made a macroeconomic contribution by financing a large part of balance of trade deficit and thus reducing the current account deficit at satisfactory level.

### IV.3. Remittances and Exchange Rate

After discussing the impact of remittances on BOP, it's worth considering seeing the interaction between remittances and the exchange rate. As we know, there has been steady depreciation of rupee vis-s-vis US dollar during the first half of 1970s which almost eliminated the difference between the market exchange rate and the official exchange rate and due to this, there has been increment in the remittance inflow which is termed as 'windfall gain' due to depreciation of the domestic currency (Nayyar, 1994). This 'windfall gain' will induce the migrants to take advantage of that and send more money to home country. This will result into more investment by migrants in their home country (consumption will constitute lesser amount due to depreciation). In the case of India, the depreciation has significantly increased the remittances transfer via the formal channels (one of the reason for phenomenal rise in remittances after 1990) rather than relying on the informal channels.

However, there is also another side of the coin; large remittance inflow could cause the domestic currency to appreciate and therefore generate a resource allocation from the tradable to the non-tradable sectors which adversely affect the competitiveness of tradable sector. This situation also raises concerns about the international position and sustainability of economies characterized by recurring trade deficits (Acosta et al, 2007). This phenomenon is known as *Dutch disease*.

## V. Some Regulatory aspect regarding Remittances

Before discussing some of the regulatory issues, it is necessary to distinguish between remittances on the one hand, and repatriable deposits or portfolio investments on the other, as the degree and nature of government intervention varies significantly between them.

Till 1991, the government of India strictly regulated the exchange rate of the Indian rupee and imposed Foreign Exchange Regulation Act (FERA)[11], creating huge incentives to transfer money through informal, unregulated *hawala* network. There were also no incentives in the form of a premium exchange rate or in allowing the use of a proportion of remittances for imports[12] (Nayyar, 1994). The introduction of market determined exchange rate and current account convertibility since 1991 as a part of the economic reform have had a significant influence on the remittances inflows. Such a change in the exchange rate system have significantly reduced and even nullified the premium commanded by unofficial exchange rate and thus acted as a major factor for channelising the remittances through formal routes (Debabrata & kapur, 2003).

The major formal channels involved in the transfer of migrants' savings are authorized dealers, money transfer companies and money changers. The main issue with these institutions is the cost of transferring remittances, which is the main issue for the selection of various channels for sending remittances[13]. The high cost tends to discourage the migrants to send their hard earned saving through formal channels.

Apart from that, one of the major policy negligence regarding remittances is related to the proper utilization of remittances receipt. There has been almost no attempt to intervene in

[11] FERA imposed a strict control system on all transactions in foreign exchange, permitting only a limited number of transactions per year. FERA was replaced by Foreign Exchange management Act in 2000, which relaxed controls on foreign-exchange transactions. Due to this, NRI's reluctance to place money into rupee account is declining (Chisti, 2007).

[12] Under liberalized exchange rate management system introduced in 1992, all current account receipts from export, invisibles or remittances are to be surrendered to authorized dealers in foreign exchange, who would provide the domestic currency equivalent, but only 40percent of the receipt is to be changed at the official exchange rate whereas 60percent of the receipt is to be changed at market exchange rate (dual exchange rate system).

[13] The rates vary both across the agencies and across the countries. For Instance, the cost of sending USD 500 to USD 550 from the USA to India is 6.5percent, 8-8.5percent and 11.5-12percent from banks, exchange houses and money transfer companies respectively (Sasikumar & Hussain, 2007).

or to guide the use of domestic rupee resources provided in lieu of the remittances receipt of foreign exchange (Nayyar, 1994). The decision about utilization of remittances as between consumption, investment or some other alternative has been left entirely on the recipient or the returning migrant. However, in a market economy it's not possible to intervene directly in the utilization of these resources (except some changes in incentives).

However, as we know, migrants are better saver than investor. It is desirable to transfer their savings to investors through financial intermediaries. This can be done by providing extra incentive to migrants in the form of better interest rate on remittance receipt placed in specified assets or deposits. In case of the policy regarding repatriable deposits which is driven by changes in monetary policy and management of external finance requirements, it was extremely pro-active during the pre- 1990 period. A series of incentives[14] were provided during this period to the NRIs to operate different NRI account[15]. These incentives were provided with a view to augment the foreign exchange reserves of the country. These policy initiatives did have considerable impact on the NRI deposits during 1980s (see table 1). But since the 1990s, there has been complete reversal in respect of these policy initiatives[16] (as can be seen fluctuations during 1990s from the table 1). The latest policy initiative is regarding treatment of NRI deposit at par with the domestic deposit as proposed in union budget 2004-05 (Sasikumar & Hussain, 2007).

Lastly, there is one of the important regulatory framework which we would like to discuss is the money laundering system[17]. Money laundering poses serious threat to the financial system as well as integrity of the nations. A number of initiatives have been taken by international community to obviate such threats[18] (Sasikumar & Hussain, 2007). In short,

[14] The incentives were; higher interest rates for deposits denominated in foreign currency than domestic currency, exchange rate guarantee for foreign currency denominated accounts, facilities for repatriation of deposits, absence of any ceiling on the amount deposited etc..

[15] The NRI deposits can be broadly categorized into as : a) Rupee denominated accounts; and b) Foreign currency denominated account. Currently NRI deposits which are operational include: The Non-Resident (External) Rupee Account NR (E) RA scheme also known as NRE scheme, The Foreign Currency Non-Resident (FCNR(B)) scheme and the Non-Resident Ordinary (NRO) Rupee Account (Sasikumar & Hussain, 2007).

[16] It is argued that NRI deposit posit potential problems for monetary and external policy makers in times of crisis as they display a high degree of volatility irrespective of maturity considerations (RBI, 2004).

[17]

[18] India has introduced the Prevention of Money Laundering Act, 2002, "to prevent money laundering and to provide confiscation of property derived from money laundering and involved matters connected therewith or incidental thereto".

the crux of all the regulations has been to transfer all the financial flows (remittances as well as NRI deposits) via formal channels rather than informal channels.

## VI. Conclusion and Recommendations

From the above discussion, it is clear that India has already achieved a large and sustained increase in remittances over the year due to phenomenal increase in the volume of international migration. The impact of remittances has been tremendous for both the household as well as the economy like India which is characterized by persistence of abject poverty and lack of opportunity for the abled one in every aspect of their life. Remittances, as a result of International migration, have emerged as one of the most fruitful panacea to get rid of such economic problems.

Since this study is concerned more of the trend and the analysis of remittances on various macroeconomic variables like GDP, private final consumer expenditure, saving, investment, balance of payment, exchange rate, FDI etc, the focus is basically on the potential macroeconomic and developmental impact of remittances at macro level. It was shown that there has been increasing trend in the remittances for the period 1971-2008. These increasing trends can be attributed to various factors like the shifting from informal channels to formal channels, increase in the volume of international migration due to the economic reform of government of India and changes in the regulatory framework regarding international migration. These increases in remittances have influenced the foreign exchange reserve of India significantly which have the potential to affect many of the macroeconomic variables (analyzed in terms of percentage).

It was also seen that in a capital scarce country like India, remittances are not simply foreign exchange reserves which can be used to finance the balance of trade deficit or the current account deficit but also a counterpart in terms of source of external development finance (mechanism already discussed). It means remittances within the control of the government should be utilized to finance higher level of investment rather than consumption, if the objective is to maximize development benefits. But for this to be applicable in reality there is a need of the appropriate government policies on mobilizing and attracting migrant’s remittances and redirecting them to formal channels. The government policies might be regarding providing fiscal incentives such as removing

restrictions on repatriation of profits and eliminating needless licensing requirements. Apart from that there is also another important policy option for maximizing the development benefits of remittances is to channel remittances to small and micro enterprises through financial intermediaries as deposits rather than expecting migrant's to directly invest. In this case, the policy focus might be to induce micro finance institutions to capture remittances to be in turn used to fuel productive activities.

Apart from that, there is also a need to improve the infrastructure (physical as well as human) of the country so that remittances to reach at higher level trajectory. The higher level trajectory is needed for the capital and technological scarce economy like India. With the presence of adequate remittances as foreign exchange reserve, India can finance its need of capital for its economic development.

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# Appendix

## Table 1 (A): Macroeconomic Variables (Base Year 1999-00) in Rs. Cr.

| Year | GDP at Market Price | Private Final Consumption Expenditure | Gross Domestic saving | Gross Domestic capital Formation |
|---|---|---|---|---|
| 1971-72 | 525584 | 39711 | 7281 | 7759 |
| 1972-73 | 522698 | 43768 | 7788 | 8085 |
| 1973-74 | 540045 | 52762 | 10912 | 11304 |
| 1974-75 | 546443 | 63925 | 12298 | 12951 |
| 1975-76 | 596428 | 65374 | 14196 | 14079 |
| 1976-77 | 606301 | 67968 | 17320 | 16011 |
| 1977-78 | 650311 | 78268 | 19995 | 18530 |
| 1978-79 | 687435 | 85122 | 23601 | 23729 |
| 1979-80 | 651430 | 92433 | 24213 | 24793 |
| 1980-81 | 695361 | 111961 | 26881 | 28975 |
| 1981-82 | 737078 | 128598 | 30896 | 33507 |
| 1982-83 | 762622 | 141608 | 33787 | 36353 |
| 1983-84 | 818288 | 166542 | 38091 | 40608 |
| 1984-85 | 849573 | 184216 | 45453 | 48745 |
| 1985-86 | 894041 | 201783 | 53389 | 59623 |
| 1986-87 | 936671 | 226596 | 58036 | 64391 |
| 1987-88 | 973739 | 253924 | 72264 | 79089 |
| 1988-89 | 1067582 | 293708 | 87166 | 99470 |
| 1989-90 | 1131111 | 328875 | 106092 | 118371 |
| 1990-91 | 1193650 | 376943 | 130010 | 148206 |
| 1991-92 | 1206346 | 435723 | 141089 | 144466 |
| 1992-93 | 1272457 | 490823 | 159682 | 173498 |
| 1993-94 | 1333123 | 562932 | 189933 | 194724 |
| 1994-95 | 1421831 | 651951 | 247462 | 259355 |
| 1995-96 | 1529453 | 751734 | 291002 | 311782 |
| 1996-97 | 1645037 | 886559 | 313068 | 330806 |
| 1997-98 | 1711735 | 965339 | 363506 | 385808 |
| 1998-99 | 1817752 | 1121595 | 389747 | 408109 |
| 1999-00 | 1952035 | 1253643 | 484256 | 506244 |
| 2000-01 | 2030711 | 1339274 | 499033 | 511788 |
| 2001-02 | 2136651 | 1467195 | 534885 | 520656 |
| 2002-03 | 2217133 | 1551365 | 646521 | 618035 |
| 2003-04 | 2402727 | 1699486 | 820685 | 759325 |
| 2004-05 | 2602065 | 1840406 | 997873 | 1011212 |
| 2005-06 | 2844942 | 2055387 | 1228026 | 1272630 |
| 2006-07 | 3120031 | 2307822 | 1475108 | 1521805 |
| 2007-08 | 3402716 | 2596084 | 1779614 | 1845513 |
| 2008-09 | 3609425 | 2913386 | NA | NA. |

Source: RBI Handbook of Statistics on Indian Economy 2009-10

## Table 2(A): Balance of Trade Components in Rs. Cr.

| Year | Export | Import | Invisible Receipt | Balance of Trade deficit | Current Account Receipt |
|---|---|---|---|---|---|
| 1971-72 | 1608.2 | 1824.5 | 546 | -216.3 | 2154.2 |
| 1972-73 | 1971.5 | 1867.4 | 514 | 104.1 | 2485.5 |
| 1973-74 | 2523.4 | 2955.4 | 2281 | -432.0 | 4804.4 |
| 1974-75 | 3328.8 | 4518.8 | 985 | -1190.0 | 4313.8 |
| 1975-76 | 4036.3 | 5264.8 | 1815 | -1228.5 | 5851.3 |
| 1976-77 | 5142.7 | 5073.8 | 2204 | 68.9 | 7346.7 |
| 1977-78 | 5407.9 | 6020.2 | 2767 | -612.3 | 8174.9 |
| 1978-79 | 5726.1 | 6810.6 | 3185 | -1084.5 | 8911.1 |
| 1979-80 | 6418.4 | 9142.6 | 4386 | -2724.2 | 10804.4 |
| 1980-81 | 6710.7 | 12549.2 | 5672 | -5838.5 | 12382.7 |
| 1981-82 | 7805.9 | 13607.6 | 5665 | -5801.7 | 13470.9 |
| 1982-83 | 8803.4 | 14292.7 | 6062 | -5489.3 | 14865.4 |
| 1983-84 | 9770.7 | 15831.5 | 6894 | -6060.8 | 16664.7 |
| 1984-85 | 11743.7 | 17134.2 | 8244 | -5390.5 | 19987.7 |
| 1985-86 | 10894.6 | 19657.7 | 7876 | -8763.1 | 18770.6 |
| 1986-87 | 12452.0 | 20095.8 | 8276 | -7643.8 | 20728.0 |
| 1987-88 | 15673.7 | 22243.7 | 9281 | -6570.0 | 24954.7 |
| 1988-89 | 20231.5 | 28235.2 | 10927 | -8003.7 | 31158.5 |
| 1989-90 | 27658.4 | 35328.4 | 12485 | -7670.0 | 40143.4 |
| 1990-91 | 32557.6 | 43192.9 | 13396 | -10635.3 | 45953.6 |
| 1991-92 | 44041.8 | 47850.8 | 23449 | -3809.0 | 67490.8 |
| 1992-93 | 53688.3 | 63374.5 | 27042 | -9686.2 | 80730.3 |
| 1993-94 | 69751.4 | 73101.0 | 35501 | -3349.6 | 105252.4 |
| 1994-95 | 82674.1 | 89970.7 | 48839 | -7296.6 | 131513.1 |
| 1995-96 | 106353.3 | 122671.1 | 59443 | -16317.8 | 165796.3 |
| 1996-97 | 118817.1 | 138919.7 | 76093 | -20102.6 | 194910.1 |
| 1997-98 | 130100.6 | 154176.3 | 86245 | -24075.7 | 216345.6 |
| 1998-99 | 139753.1 | 178331.9 | 108459 | -38578.8 | 248212.1 |
| 1999-00 | 159561.4 | 215236.5 | 131449 | -55675.1 | 291010.4 |
| 2000-01 | 203571.0 | 230872.8 | 147778 | -27301.8 | 351349.0 |
| 2001-02 | 209018.0 | 245199.7 | 175108 | -36181.7 | 384126.0 |
| 2002-03 | 255137.3 | 297205.9 | 202757 | -42068.6 | 457894.3 |
| 2003-04 | 293366.8 | 359107.7 | 245413 | -65740.9 | 538779.8 |
| 2004-05 | 375339.5 | 501064.1 | 311550 | -125724.6 | 686889.5 |
| 2005-06 | 456417.9 | 660408.9 | 397660 | -203991.0 | 854077.9 |
| 2006-07 | 571779.3 | 840506.3 | 517146 | -268727.0 | 1088925.3 |
| 2007-08 | 655853.5 | 1012311.7 | 596954 | -356458.2 | 1252807.5 |
| 2008-09 | 766935.0 | 1305503.0 | 746036 | -538568.0 | 1512971.0 |

Source: RBI Handbook of Statistics on Indian Economy 2009-10