CHAPTER 1

An Overview of the Economic Reforms in India in the Nineties

1. Background

The world economy witnessed an impressive growth performance in the 1960s; and both the developed as well as the developing countries shared the benefits of the global economic expansion\(^1\). The expansionary phase was rather comprehensive in nature, and it was marked by impressive economic growth, augmented exports, controlled level of inflation etc. The continuity of the expansionary phase of the global economy was hindered in the early seventies. The global economy was struck by the first oil crisis in 1974 and many other external shocks followed intermittently in a sequence. On the 1st January 1974, the OPEC shocked the world economy by hiking the oil prices by 167 percent per barrel\(^2\) in just one go. Between 1974 and 1975, recession overwhelmed the entire world economy and aggravated the economic problems further. Unlike the Great Depression of the Post War period, the recession in the 1970s was for a short spell. The normalcy returned in 1978. However, the second oil shock cropped up again in 1979 and continued up to March 1981. The second oil shock prolonged for a longer period due to aggression of Iraq on Iran in 1980. Several other shocks appeared one after another with lesser intensity during the same period. Taking these developments into account, the entire period spanning between 1974 and 1982 may be understood as a period of crisis for the global economy. The implications of these external shocks were adversely felt in the developing countries. It can very well be

\(^1\) For detail discussion on the performance of the global economy since 1960, see Cooper (1991).

\(^2\) In the Ministerial meeting of the Organisation of Oil Exporting Countries (OPEC) at Tehran in December 1973, there was a significant decision to increase the market prices of crude from $3.60 to $9.60 per barrel. The enhanced oil prices had enabled the OPEC to experience a hike in their income to the extent of $66 billion per annum. Sizeable burden of the price hike fell on developing countries. The severity of oil crisis was partially neutralised due to primary commodity price boom in the global market.
judged by looking at the number of countries that had approached the IMF for emergency fund to undertake reform programmes.

Before the first oil shock in the 1970s, the pressure on developing countries was very low and only a few developing countries felt the necessity to undertake adjustment programmes to tackle their structural problems with the support of IMF and the World Bank. But the average number of countries increased significantly in the post-crisis period. A brief overview on the number of countries and the size of loan committed by the IMF at different periods to undertake stabilisation programme is presented in Table 1. During the pre-crisis period, particularly during the period 1971-73, an average of 14.7 countries per annum approached the IMF for adopting stabilisation programme. With the series of shocks in the mid-1970s, the economic situation in the developing countries deteriorated in terms of their macroeconomic management. Sizable number of countries tried with various policy alternatives to maintain their macroeconomic stability.

Table 1: Average Number of IMF Programmes and Loans Allocated During 1953-2001

<table>
<thead>
<tr>
<th>Year</th>
<th>Average No. of Arrangements</th>
<th>Total (Milln USD)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Stand-By</td>
<td>EFF</td>
</tr>
<tr>
<td>1953-59</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td>1960-73</td>
<td>20.6</td>
<td></td>
</tr>
<tr>
<td>1971-73</td>
<td>14.7</td>
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<td>1974-79</td>
<td>16.3</td>
<td>2.3</td>
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<tr>
<td>1980-89</td>
<td>20.6</td>
<td>3.6</td>
</tr>
<tr>
<td>1990-01</td>
<td>13.3</td>
<td>3.1</td>
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Source: Calculated on the basis of IMF, Annual Report 2002

During the period 1974-79, the average number of countries having IMF supported financial programmes went up to 17.5 per annum. With the help of varieties of arrangements, many developing countries managed to...

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1 Arrangements of countries with the IMF include standby arrangement, EFF, SAF and PRGF.
2 For details about the different arrangements refer IMF (2002).
3 The EFF programme was launched in 1976, whereas SAF and ESAF programmes were pressed into operation in 1987 and 1989 respectively.
avoid approaching the IMF for funds to run stabilisation programmes immediately during the oil crisis period.

The *ad hoc* policy mechanism adopted by the developing countries to prevent adverse impacts of exogenous shocks had collapsed in sizeable number of countries in the 1980s. The average number of countries that volunteered for different financial arrangements with the IMF in the 1980s increased by more than 50 percent as compared with the period between 1974 and 1979. During 1980-89, as many as 27.1 arrangements per annum, on an average, were undertaken by different developing countries with the financial support from the IMF. Although the pressure on the developing countries to undertake reforms came down during the late 1990s, the average number of countries under stabilisation programme remained alarmingly high during the period 1990-2001.

In response to a series of external shocks during the 1970s and the 1980s, developing countries undertook various policy measures to overcome the adverse impact of these shocks on their economies. A number of countries experimented with a variety of policies during that period, and those reforms policies can be broadly categorised into three groups: a) counter-cyclical policy, b) self-propelled reforms, and c) Fund/Bank-supported reforms.

During the 1970s and the 1980s, most countries found it convenient to practice counter-cyclical expansionary policies to overcome short term balance of payment-related and other similar crises. Relying on three broad policy instruments, namely, increase in budget deficit, domestic borrowing and external debt, these countries could maintain high growth rate, at the cost of allowing macroeconomic fundamentals to deteriorate persistently. These expansionary policies did not affect all the countries at the same time, but the adverse effects of these policies appeared at different points of time. With this approach, a few countries could succeed in avoiding immediate macroeconomic failure\(^5\), while many of them could not perform

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\(^5\) Reviewing the performances of large number of countries during the 1980s, Little et al (1993) study observed that India could managed to maintain better performance as compared to other developing countries in the post-oil crisis period, but impact of such policy distortions come up in a more violent manner in the early 1990s.
up to the expected level. This had contributed to deepening of macroeconomic imbalances in those countries. In the long run the expansionary policies failed to bring macroeconomic stability in those countries.

Anticipating the severity of the problems, some countries designed self-propelled reform policies without postponing the reforms process further. These policies had several advantages, which need to be mentioned. The adjustment cost of reforms in this case was much lower than the postponed reforms. In order to make these policies attractive, it embodied the component of ‘human face’, which helps to neutralise the adverse impact of reforms and improves the conditions of poor during the period of reforms. This policy package has appeared to be very successful because such policies aimed at restoring macroeconomic balance along with enforcing austerity measures, and at the same time protecting the social sector, which are primarily ‘soft sectors’ of the economy. Such a policy package also seriously takes note of income distribution aspects during reforms. In the process, very little portion of the adjustment cost of reforms is diverted to the low income groups of the economy.

The countries, which failed to restore macroeconomic balance due to postponing reforms, faced serious macroeconomic disorder in the 1980s and the 1990s. These countries faced several structural maladies such as spiral inflationary tendency, overvalued exchange rate, parallel exchange rate, large black economy, alarmingly expanding budget deficit, rising debt burden, declining credit rating index, etc. Anticipating adverse effects of Fund-supported stabilisation programmes, many countries deferred reforms to an extent that the symptoms of a payments crisis emerged in their respective economies.

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6 Countries like Malaysia had initiated self-propelled economic reforms in the 80s. Such policies have a ‘human face’ in it and the government face very little resistance from the weaker section of the society for implementing the programme.

7 There is a debate on the composition of the policy package of reforms in the 1980s considering the poor performance of the programme countries, which had undertaken programmes under the support of the IMF and the World Bank. The UNICEF study (Cornia, Jolly and Stewart, 1987) made an impressive revelation that human conditions are bound to be affected during the period of reforms, because such elements are very much in-built within the programme package. In order to mitigate the adverse effects of reforms, the policy framework of the appropriately designed with a human face.
Past experience shows that adoption of Fund/Bank-supported stabilisation programme has been the last resort for a country. Implementation of programme is deferred to a large extent because of perceived adverse effects of reforms on the sustainability of the political regime. The most important reason for accepting fund-supported programme is to avoid payment defaults - which is like reaching a grave threshold situation of imminent crisis for a country. With the arrangement with the IMF, the short term liquidity problem is immediately addressed. A problem-ridden country ultimately approaches IMF for undertaking a programme when all the possible sources of liquidity dries out for raising resources like the international capital market.

The financial arrangements of the country with the Bretton Wood Institutions (BWIs) may provide other services apart from releasing mutually agreed loan at a very short period. The BWIs mediate between the country and creditors for debt rescheduling. The country also gets the advantage of meeting the donor countries in a fund raising consortium, which is mostly arranged by the IMF and the World Bank. The credit rating index of the country improves with the acceptance of the programme, and the improvement in the rating is closely linked to credit worthiness of the country. A programme-country receives several other advantages after accepting the Fund-supported programme.

However, it becomes an arduous task for a country to conform to the stringent conditionality of the BWIs. While undertaking programmes, the country has to face rigid targets that are set by the Fund/WB in consultation with the concerned country. Very often it is beyond the control of the programme-country to adhere to the towering targets set out in the policy

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8 In some cases, the ruling political party in the government is threatened due to the adverse recessionary impact of reforms. For an excellent review on political instability and Fund-supported programme, refer Sidell (1988)
9 Frankline and Khan (1991) have discussed other advantages, which a country is likely get under a Fund-supported programme.
10 There is plethora of literature exist on the issue of conditionality of the BWIs. For details see Avramovic (1988) and Killick et al (1984).
11 The study of Martin (1990) has highlighted that the EFF programme of Bangladesh was prematurely terminated because the Government could not stick to the limits set by the IMF on the credit level. With a view to maintain food security, the Government had to pump more resources to build food reserves. In that year Bangladesh witnessed a big harvest and the
framework. In the past, there are several instances where programmes failed pre-maturely. It may be noted that willingness of a country to run a programme does not ensure that the programme might be completed with achieving its major policy targets. Termination of stabilisation programme in the mid-way causes serious repercussions\textsuperscript{12} for the country in the medium and the long-run.

Under BWIs-supported reforms, substantial number of countries failed in achieving sustainable growth in the long run. The experience of countries indicates that a few countries have successfully completed reforms but failure cases are much more than the successful ones among developing countries. The successful cases are mostly those, which are, rather, advanced among developing countries. Many of these successful countries are small in their sizes. The BWIs very often cite those examples as the successful cases for justifying their own policy approach. But in reality, success of a programme depends upon several factors\textsuperscript{13} such as size of the economy, outward orientation, the period of deferred programme, etc. The experiences of programme countries in Africa, Latin America and Asia have confirmed to this assertion and lent support to the argument showing that structural factors\textsuperscript{14} play a very important role in bringing macroeconomic stability. Stiglitz (2002) has highlighted the necessity of including some elements of structural policies\textsuperscript{15} to make the BWIs-supported programmes more meaningful. Thus, there is a need for examining the critical conditions and identifying policy instruments responsible for the successful completion of reforms.

\textsuperscript{12} Bangladesh faced severe difficulty when EFF was terminated in the early 1980s. As a pre-condition, the economy opened up extensively to the rest of the world and sudden withdrawal of the IMF support put the country in a currency crisis situation (Rahman, 1992).

\textsuperscript{13} In an empirical study, Mohanty (1992?) examined these issues by taking cross-country time series data. The results of the study show that the outcome of reforms may vary from one country to another depending upon the structural character of the country despite similar conditions prevail in these countries.

\textsuperscript{14} For details on the issue see Syrquin (1988)

\textsuperscript{15} A detail discussion on Stiglitz is given in the Chapter 2.
2. Overview of economic reforms in India

India witnessed an acute payments crisis when Shri P.V.N. Rao government assumed office in the year 1991. It initiated stabilisation and structural economic reforms to address the balance of payments problem in the short-run and to have sustainable growth in the long run, by stimulating efficiency, growth and productivity. The stabilisation programme was aimed at addressing the problem of balance of payments and to cap inflationary pressure to reverse the overheating process of the economy during political transition in 1991. Another important objective of reform was to undertake deregulation in number of sectors covering real and financial sectors, removal of license regime as well as bureaucratic obstacles, providing impetus to domestic competition, reducing scope for rent-seeking opportunities, and removal of distortions and inefficiencies in the economy.

During the period of reforms, there was a concerted attempt to liberalise the trade sector. Besides, protection on the domestic industries was removed to a significant extent to enable the domestic producers to compete with their external counterparts efficiently in various economic activities, though the issue of level playing field never went out of the focus. New policies were initiated to attract foreign capital with technology to modernise domestic industries and to support India's endeavour to build a new economy in the near future.

India's reform started with a loose start in 1991-92, where the growth rate of real GDP dipped down to an all-time low level of less than one per cent during the 1980s. Since 1992-93, the Indian economy started expanding in a most robust manner. The average expansion of the economy in the early 1990s not only surpassed the ‘Hindu rate of growth’ but also exceeded the average growth rate of real GDP in the 1980s. There was marked improvement in capping the inflationary situation in the country during the stabilisation as well as structural reform period, but inflationary-bubbles appeared intermittently during the reform period. There was remarkable improvement in the performance of the external
sector including both exports and imports; and the economy slowly integrated itself with the global economy.

With the improvement in the growth performance of India, foreign capital started flowing into the economy and foreign exchange reserves started growing rapidly. This has had made the balance of payments situation comfortable than the situation in which the reform programme in India was initiated. As the economy responded to the reform policies, some of the macroeconomic fundamentals got corrected in the process and the cost of reforms became less than other programme-countries under the support of the Fund. Possibly, India became one of the rarest countries in the world where the economic expansion did not go in the negative direction during the period of stabilisation.

Despite significant improvement of the Indian economy, it also encountered a number of problems during the first phase. One of the crucial areas which was not addressed properly was fiscal deficit which continued to strain the national exchequer, coupled with reduction in current government expenditure, marginally. The level of protection continued in two important sectors, namely, agriculture and financial sector. Because of slow progress in the financial sector liberalisation, the real interest rate continued to be very high resulting in credit crunch in the economy. It adversely affected exports as well as industrial growth in the economy. The public sector continued to be a major area of concern creating large budget deficit and a hindrance for the flow of resources to the private sector. In other words, the monopoly of the public sector continued which crowded out private sector from actively engaging itself in the domestic economic activities.

2.1 Indian Economy in the Pre-Reforms Period

Since the 1960s, with emphasis on a planned economy, India had been devising different policies but most often as responses to economic shocks. The unprecedented drought during 1965-67 however, did not hamper the real growth of GDP and balance of trade. But there was high level of inflation, almost 14-15 per cent per year because of not-so-tight fiscal and monetary policies. During 1967-68 and 1972-73, a number of
policy changes were introduced. Several export promotion measures to support diminishing effect of economy's first devaluation in 1966, along with import restrictions could improve trade balance to a surplus in 1972-73. With the liberal policy stance, growing budget deficit was financed by money creation. There were two shocks in 1970s. First, the economy was in the middle of a prolonged agricultural slump from 1972-73 to 1975-76. Secondly, this was followed by the first international oil price hike. But the economy could resist the peak current account till 1979-80.

The post-1973 may be characterised as a period of orthodox stabilisation. The foreign exchange constraint was the main problem from the demand side. World recession in 1980-81 followed the 1979-80 oil shock. Foreign aid did not come easily because of the adjustment policies started by other countries. The 1979-80 saw a rise in fiscal deficit, which was again financed largely by money creation. India approached IMF and the liberalisation process started in a systematic manner. Fiscal adjustment was made by financing the deficit through both domestic and foreign borrowing.

The eighties were the most turbulent period in the world foreign exchange markets. There was a sharp appreciation of the US dollar. The Rupee underwent about 35 per cent depreciation against US Dollar during 1980-85. However, there was an appreciation of the nominal and real values of Rupee during very early months of the eighties. The REER appreciated more than the NEER because of the spiralling inflation in India after second oil shock. A steep downward adjustment was thus needed to restore it in 1981.

A beginning was also made towards liberalisation of India's trade policy regime during the late 1970s and it gained momentum during the latter half of the 1980s. In mid-eighties, there were many important policy changes in almost all sectors of the economy - industrial, foreign trade, monetary and long term fiscal policy (LTFP). Various Committees led by Alexander (1978), Hussain (1984) and Narsimham (1985) emphasised two major points: (1) the need for developing an efficient system to make export less costly and more profitable; and (2) the need to move away from a
discretionary system of quantitative controls of import to a system based on tariffs. The LTFP envisaged an eventual removal of import licensing from all imports except for consumer goods and also proposed simplification of the complex tariff structure. Quantitative restrictions were gradually removed along with expansion in the open general license (OGL) list of imports, in which capital goods and raw materials became freer along with reduction in their tariffs also.

In spite of all these policies there were worsening trends in fiscal and current account balances. This was attributed mainly to the surge in government expenditure. The consequent increasing fiscal deficit was financed by large borrowing and money creation. This forced the policy makers to go for demand management in order to ease out the spiralling inflation. This manifested in controlling money supply and slashing the government expenditure. However, the austerity in government expenditure resulted only in cutting down of its capital expenditure. The principal mode of reducing current account deficit during second half of the eighties was the managed depreciation of Rupee. During 1985-90, NEER and REER depreciated by nearly 50 and 30 per cent, respectively.

The roll-over crisis from the late eighties along with the starting of the gulf war in the beginning of the 1990s, pushed the Indian economy to an unprecedented crisis in the form of (a) heavy inflationary pressure (two-digit price rise), (b) acute balance of payments disequilibrium, (c) huge fiscal deficit and (d) rapid increase in external debt. With a view to improving the efficiency, productivity and global competitiveness, both macro and microeconomic reforms were introduced in the spheres of industrial, trade and financial policy regimes.

2.2 Growth Performance of the economy

In the first year of reforms in India, the growth rate was less than one percent per annum as compared with an average of 5.5 percent per annum during the 1980s. In theory, economic reforms package stipulates that the stabilisation policy is designed to reduce domestic absorption in order to control the overheated economy in the pre-reform period. For meeting
similar situation in India both fiscal and monetary policies were effectively used in terms of reduction in expenditure of both the Government and private sector to narrow the gap between the level of domestic income and expenditure in a radical manner. Discrete devaluation was made so as to increase the cost of import of raw materials and to boost domestic exports within a very short period. The policy of deregulation improved the allocative efficiency in the country but the prices of the subsidised products were affected adversely because of the policy regime and its effect was felt in terms of reduction in the level of output because of rise in production cost.

Apart from changes in the domestic economic policies, various exogenous factors also adversely affected the performance of the Indian economy in 1991-92. First, it turned out to be an abnormal year for the agricultural sector as the average rainfall was below the normal level and its cumulative effects were felt in other areas of the economy. Secondly, disintegration of the former Soviet Union adversely affected the external sector performance of the Indian economy. This export destination absorbed almost one-fourth of its total exports which just disappeared due to political upheavals therein. Thirdly, the contractionary policies of stabilisation forced the manufacturing output to decline in 1991-92.

Nevertheless, the economy revived quickly following the implementation of stabilisation programme. The economy started picking up since 1992-93 and grew at a high rate between 1992-93 and 1996-97. In the second phase of reforms, the growth rate improved significantly in the initial years but slowed down again during the latter part of the period.

The recovery of the Indian economy was mostly due to non-agricultural sector. In the 1990s, contribution of the agricultural sector declined significantly but it had a very little impact on the overall economic performance of the country. Still a worrying factor for the Indian economy was the persistence of recession in the capital goods sector. The recession in the sector continued for three consecutive years and the recovery process started only since 1994-95. In 1994-95, the government
had adopted a less stringent fiscal and credit policies to allow the capital goods sector to recover from the state of the recession.

Thus, the reforms episode in India has raised many issues for examination in order to make the process sustainable and productive in the long-run.

2.3 Saving and Investment

Following the implementation of the stabilisation programme, the Gross Domestic Savings (GDS) as a proportion to GDP declined in 1991-92 and 1992-93; and then resumed growth since 1994-95. The trend of high savings ratio was reversed in the late 1990s owing to negative public savings ratio registered by the public sector. It is important to note that public savings constituted about 4 per cent of GDP in the 1970s and declined significantly in the second phase of reforms. Decline in the rates of gross domestic savings was due to slowing down of savings rate in the private corporate sector. Significant proportion of the GDS is contributed by the household sector and it has been rising since 1997-98 to reach the peak rate of 19.8% of GDP in 1999-2000. The growth of saving ratio is mostly supported by savings in physical asset. Net financial savings of households’ ratio to GDP is almost stagnant at 10.5 since 1998-99. Increase in the size of financial saving of the household is due to policies of the government to give concessions to various forms of contractual savings. Financial savings was partly affected by the decline of the stock market in India.

Private corporate savings increased steadily during the reform period but declined significantly in 1998-2000 because of industrial stagnation. The total savings of household and private sector savings was 23.5 percent of the GDP in 1999-2000 but the Gross Domestic Savings declined to 22.3 percent on account of negative savings registered by the public sector. This sector has started generating negative savings rate since 1998-99, and it should start generating positive savings to trigger the economic growth on a sustainable growth path.

The gross domestic capital formation ratio has been exceeding the ratio of GDS throughout the 1990s but has declined below the savings ratio
recently, reflecting export of capital from the economy. The resource gap on the domestic front is financed by foreign savings. The Tenth Five Year Plan has envisaged the target average of foreign savings ratio to be 2.5%. The gross capital formation continued to be high in the first phase of reforms but declined significantly in the second phase. This ratio reached the peak of 26.8 percent of the GDP in 1995-96 but declined substantially to 23.3 per cent in 1999-2000. The decline in the investment rate has had an adverse effect on the growth prospects of the country. The nature of investment in the public sector is important for the growth of the sector in the 1990s. It is reported that much of the public sector investment was diverted for building food stocks rather than building fixed capital stock for the sector.

The private sector investment expanded in the first phase of reforms but declined considerably during the second phase. The private sector investment ratio recorded 9.6 percent of the GDP in 1995-96, but it declined to 6.5 percent in 1999-2000.

2.4 Inflationary Situation

After experiencing many decades of chronic spiral inflation in India, the government could manage to bring the level of inflation to a controllable limit. During the period of reforms in the 1990s, the government policies were quite effective in successfully bringing down the level of inflation through out the period of reforms with sporadic inflationary bubbles appeared at different points of time. Appropriate policy measures were taken from time to time to check such occurrences.

The Indian economy witnessed peak level inflation rate of 16 per cent in September 1991. The level of inflation continued to be very high up to the mid-1990/92. The reform policies could manage to bring down the level of inflation to a moderate level of 8 per cent of 1993-94. This shows that effectiveness of anti-inflationary measures in successfully combating inflationary spiral. The level of inflation again went upwards to touch the level of 10 per cent in 1994-95, despite amelioration in the supply conditions of the country.
The surge in the level of inflation in 1994-95 was due to increasing benefits from the reforms or because of the successful reforms policies in the country. As the Indian economy started rolling and some of the target policy variables responded favourably, foreign capital started flowing into the economy and allowed money supply to grow. The policy response could have been to withdraw money from the circulation, by applying different measures such selling government bonds or allowing commercial banks to have more cash with them. On the contrary, RBI failed to sterilise the economy from the adverse effects foreign inflows, as it was engaged itself in borrowing from the market to support government deficits.

The level of inflation started receding to 7.8 per cent in 1995-96 as against 10.9 per cent during 1994-95. Since then government policies were quite successful in arresting the level of inflation within the controllable limits. The improvement in the inflation situation in India may be due to several factors, which are attributed to both demand and supply side factors. This may be due to monetary prudence, hike in the procurement prices of cereals, increase in the imports of essential products from time to time to arrest artificial shortage in the domestic market.

2.5 Monetary Policy

Monetary reforms in India started on the recommendations of the Narasimham Committee on Financial Systems (1991). The Committee broadly observed that improvement in the current account balance has a bearing on the profitability of banks. Banks and financial institutions need to be strengthened by adhering to prudential norms was yet another dimension which the Committee recommended. It also emphasised on the imperative of improving the competitiveness of banks and financial institutions. Based on the recommendations of the Committee, the Reserve Bank of India initiated monetary policy reforms using two prime instruments, namely Cash Reserve Ratio (CRR) and the Statutory Liquidity Ratio (SLR).

There is a significant change observed in the government security market after the initiation of financial sector reforms. Following sharp fiscal adjustment of the Central Government, the maturity period of government
securities was reduced to a maximum period of ten years and interest rates were made closer to market interest rates. The government signed a Supplementary Agreement in 1994 and another in 1997 with the RBI, and the outcome of the two agreements is that the automatic monetisation of the fiscal deficit was under control. This has not only reduced the pressure on the expected high level of inflation but also has facilitated release of more liquidity to the private sector.

The Open Market Operation (OMO) has got impetus as the RBI is becoming more serious about the market yields while setting up its price list. The market trend shows that government securities market is still lagging behind other financial institutions in this market segment, despite the fact that the Foreign Institutional Investors (FIIs) joined the market in 1997 and their penetration into the market has been substantial.

In accordance with the medium term objectives of the monetary policy, there was considerable level of liberalisation in the SLR and CRR. Both SLR and CRR were at 38.5 % and 25 %, respectively at the beginning of reforms in the early 1990s, but these were progressively reduced in phases. Further, the refinancing facility has emerged as an influential instrument for regulating liquidity requirement in the economy.

Liberalisation in interest rates is closely observed by the central bank where it sets down the ceiling deposit rate. Individual banks are free to determine their prime lending rates except for small savers. There is flexibility for banks to set their interest rates for term deposits over one year.

It may be noted that one of the prime objectives of the Indian monetary policy is to maintain stable prices and to create conditions for sustainable growth. To a large extent monetary policy has succeeded in containing the level of inflation in the country. It is observed that inflationary rates are mostly coincided with acceleration in monetary expansion, but at the same time higher inflation also goes hand in hand with low growth rate. This shows that structuralists' position on inflation-output nexus is partly true in India. However, the conduct of monetary policy is to keep a balance

\[\text{16 A detail discussion on the issue is presented in Chapter 2}\]
between inflation, output and money, and to keep the interest rate low and positive in the medium term in order to link the monetary sector with the real sector effectively.

2.6 Fiscal Policy

Both direct and indirect tax reforms were introduced with an objective of widening the tax base, better enforcement with equity and developing a globally competitive economy. Direct tax rates were reduced. Reduction in customs duty along with changes in excise played a crucial role in moderating domestic prices.

The major restructuring of the indirect taxes has been by proposing the reduction of the excise duty even at the risk of losing substantial amount of revenue. However, the argument in support of it could be that it would lead to efficiency in the production, contributing to growth of the economy. Excise duty on major mass consumption goods has been reduced. Broadly speaking, necessities of life like food products, pharmaceutical products, footwear are either exempt or having low rate of excise duty, semi-luxuries are moderately taxed, and luxuries are subject to high rates of tariffs. Capital goods are subject to low rates of duty.

One perennial problem of the Indian excise system has been the taxation of inputs (raw materials, components and other intermediates) and the resulting cascading effect on the prices of final products. Therefore, when output is taxed not only the value added is taxed, but also the inputs that are taxed again. In the process, the distortions get multiplied. On the other hand, a Value Added Tax (VAT) minimises the distortions. The VAT has been introduced in the form of modified value added tax (MODVAT), which provides for complete reimbursement of excise duty paid on the components and raw materials used at the various stages in the manufacture of final products. Initially, the MODVAT scheme covered only few items, but gradually it has covered a wide range of final manufacturing products. From 1994-95, the application of input tax credit has been extended not only to raw materials as earlier used to be but also to capital goods.
In its ideal form, VAT is collected in instalments on the basis of value added at each stage of production and distribution. Since the cumulative effect of input taxation is absent under the VAT, the impact of this tax on cost of production is limited to the tax itself. By not allowing unnecessary cost escalation, it promotes competitiveness among domestic industries in the world market. However, its operation has certain limitations in a developing country like India. In principle, VAT should be imposed at a uniform rate at all stages of production and distribution, so that tax credit claims could be made easily. In India, excise duties and sales taxes are imposed on different commodities. The VAT tends to be regressive in view of its uniformity. To ensure tax structure as progressive under VAT one needs to impose special excise duties on selected luxurious commodities without extending the advantage of tax credit. On the other hand, exemption should be extended to the necessities only.

Sales tax is normally an *ad valorem* levy imposed on the seller with reference of the transaction of sale. The state governments impose this tax. This tax hurts the consumers who ultimately bear the incidence. In many cases, the producers also come in its ambit if it is levied at the purchase of inputs for the manufacturing activities. In India, commodities that are subject to sales tax, in most cases, are subject to excise duties, e.g. in case of some of the raw materials and capital goods. Besides, there have been large numbers of sales tax rates. In view of these problems, the sales tax structure in different states needed reforms to rationalise as well as to raise further resources. Some of the state governments have tried to reduce the sales tax rates on some of the important commodities like capital goods and intermediate goods. In order to keep uniformity, fewer tax rates have been introduced. States have attempted to levy sales tax on services in order to increase their revenue. Sales tax on transport services, advertising services, some repairing and consultancy services, rentals, etc. have been introduced. Recently, there is considerable progress towards harmonisation of sales tax rates across states.

Income tax is a tax on the aggregate incomes from various sources. Indian income tax system before the reform process started had been very
complicated with many levels of rates. Keeping in view the recommendation of TRC and realising its buoyancy, the personal income tax has been restructured with lower taxes, fewer slabs and higher exemption limit, etc. The maximum marginal individual income tax rate was reduced from 56 per cent in 1991-92 to 40 per cent in 1994-95. Now it is 30 per cent. It could be argued that these changes have led to a "Laffer-type" revenue effects, i.e. a reduction in tax rates results in increase in revenue. Now attempts have been made to bring most of the income earners under the umbrella of income tax. The reduction in income tax would leave the households with more disposable income. Hence, it would generate more consumption demand and more savings in the economy. The final price effects in the economy would depend on the relative preferences for the commodities by different household groups.

2.7 Exchange Rate Policy

Devaluation of Rupee by 20 per cent in July 1991 and introduction of Exim Scrips marked the new era of trade policy reforms in India. These scrips were allotted to exporters as import entitlements against the value of exports. The scrips were freely tradable. In 1992, this system was replaced by a dual exchange rate mechanism under partial convertibility. In 1993, the economy moved to a unified exchange rate system, i.e. full convertibility of rupee on current account. Since 1992, import-licensing control has been virtually abolished. In order to stimulate exports, a value-based advance license was introduced to permit duty-free imports of necessary raw materials and components to the extent of certain value of indicated exports. The Export Promotion of Capital Goods (EPCG) scheme was further liberalised to allow imports of capital goods at a concessional customs duty.

2.8 Trade Reforms

Many developing countries including India, in the face of internal as well as external imbalances, have gone through a variety of structural adjustment policies. For India, major policy changes took place in the beginning of 1990s. It has presented a mixed scenario for the
economy. India has an impressive record of growth since late 1980s, but it still faces massive challenges of poverty and inequality.

Policies change according to the requirement of the situation and ideology. The biggest challenge of India's economic reforms programme has been liberalisation of its trade sector. In the pre-1990s, India's trade policy regime was marked by a high level of tariff structure and non-tariff barriers, i.e. quantitative restrictions, in the form of various types of import licenses. To make India's trade internationally competitive, policy makers are still struggling with the idea to keep trade restrictions to the minimum possible level. Though macro implications of these reforms have been studied by researchers, international agencies and government policy makers, their impacts at the household level are not analysed well, though they are of great concern to any society. Given the heterogeneity of population and household groups, impacts of trade reforms on their welfare and poverty will not be uniform.

The chapter has made an attempt to look into some of the major trade reform issues, viz. non-tariff barriers (NTBs) and restructuring of tariff levels. Recent WTO directive had forced the Indian government to attach increasing focus on the elimination of import barriers from several key sectors by April 2001. Food-grains and fertilizers are two crucial sectors, which affect the economy in general and rural households in particular. Imports of these sectors are almost restricted, except for a small amount of free import of fertiliser. It is expected that higher level of trade barriers on these sectors could lead to welfare loss and increased level of poverty of the household groups.

In the pre-reform period, i.e. 1960-1990, some type of quantitative restrictions (QRs) on imports protected Indian industries to a large extent. India's trade was marked by heavy reliance on QRs along with higher tariffs and surcharges on imports for containing the balance of payments deficit. However, mild liberalisation process started after 1985. Though QRs were not removed, there were simplifications on restrictions. A number of items for capital goods and intermediates were put under Open General Licenses (OGL), i.e. importers with licence were free to import. According to trade
experts, as there was no substitute for the items put under OGL from domestic production, lifting of QRs on their import had little impact on import competition with domestic production (Srinivasan, 1998). Different types of licences that used to issued in pre-reform period can be categorised as (a) Open General Licence, (b) Automatic Licence, (c) Supplementary Import Licence, and (d) Imports through government-owned canalised agencies.

Beginning of 1991 was marked by a trend towards more liberal trade policy with the motto of export-led growth, to improve efficiency and competitiveness. The QRs coverage was 94 per cent for agricultural and 90 per cent for manufactured intermediate and capital goods (Chadha, et al, 1999). Prior to 1991, India's import-weighted tariff structure was as high as 87 per cent in 1989-90. The rapid increase in import tariff in the latter half of the 1980s has, eventually, led to inefficient resource allocation on Indian industries. The Tax Reforms Committee chaired by Chelliah proposed that the import-weighted average duty rate should be reduced to 45 per cent in 1995 and further to 25 per cent by 1998-99 (Government of India, 1993). It was suggested that tariff rates on imports of intermediate and capital goods having high import weights as well as high tariff rates to be brought down drastically from 103 and 91 respectively in 1989-90 to 30 in 1998-90. It was further suggested that additional protection might be given to new industries and new technologies.

Table 1: Proposed Tariff (Import Weighted Average)

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural products</td>
<td>0.03</td>
<td>46</td>
<td>20</td>
</tr>
<tr>
<td>Coal, crude oil, natural gas</td>
<td>0.16</td>
<td>54</td>
<td>34</td>
</tr>
<tr>
<td>Other mineral products</td>
<td>0.03</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>Manufactured products</td>
<td>0.76</td>
<td>98</td>
<td>49</td>
</tr>
<tr>
<td>Consumers goods</td>
<td>0.07</td>
<td>89</td>
<td>60</td>
</tr>
<tr>
<td>Intermediate goods</td>
<td>0.47</td>
<td>103</td>
<td>46</td>
</tr>
<tr>
<td>Capital goods</td>
<td>0.24</td>
<td>91</td>
<td>55</td>
</tr>
<tr>
<td><strong>Import Weighted Average</strong></td>
<td><strong>1.00</strong></td>
<td><strong>87</strong></td>
<td><strong>45</strong></td>
</tr>
</tbody>
</table>

Source: Government of India, 1993
Table 2: Tariff Structure of India (per cent)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average unweighted (whole economy)</td>
<td>125</td>
<td>71</td>
<td>41</td>
<td>39</td>
<td>35</td>
</tr>
<tr>
<td>Average weighted (whole economy)</td>
<td>87</td>
<td>47</td>
<td>47</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>Consumer goods</td>
<td>153</td>
<td>86</td>
<td>36</td>
<td>33</td>
<td>25</td>
</tr>
<tr>
<td>Intermediate goods</td>
<td>77</td>
<td>42</td>
<td>22</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Capital goods</td>
<td>97</td>
<td>50</td>
<td>29</td>
<td>29</td>
<td>24</td>
</tr>
<tr>
<td>Maximum tariff rate</td>
<td>355</td>
<td>35</td>
<td>50</td>
<td>52</td>
<td>45</td>
</tr>
</tbody>
</table>

Source: As quoted by Chadha et al. 1999.

The policy reforms have led to lowering the average (unweighted) applied tariff rate from 125 per cent in 1990-91 to 35 per cent in 1997-98. The import weighted average rate has gone down from 87 per cent in 1990-91 to 20 per cent in 1997-98. The peak rate of duty has declined from 335 per cent in 1990-91 to 45 per cent in 1997-98 and to 40 per cent in 1999-2000.

It is noted that tariffs on consumer goods have been drastically reduced as compared to tariffs on intermediate and capital goods. A cursory glance at the average tariff rate by different chapters of HS classification, indicates that tariff rates have declined for almost all the commodities, but the decline is relatively significant in sectors like products of animal origin, vegetables and edible oils, ores, mineral products, wood and wood products, and machinery and mechanical appliances (Annexure 1). However, in 1998-99 the relative tariff rates are higher for beverages, spirits and vinegar, essential oil and resinoids, cocoa and preparation thereof, man-made filaments, plastic and plastic products.

As regards to non-tariff barriers, the coverage of Open General Licence has been enhanced and the restricted list has been cut drastically. There is a negative list of items, which does not fall under OGL. The negative list of imports consists of (i) prohibited items: items not permitted to be imported, (ii) restricted items: this includes consumer goods, actual user and special import licence (SIL) and (iii) canalised items. The first stage of India’s reforms after 1991 continued to focus on manufacturing while agriculture was largely ignored. The share of value added in the manufacturing sector, protected by QRs, declined from 90 to 36 per cent by
May 1992 (Purseil, 1996). The corresponding decline was much less in agriculture, from 94 to 84 per cent by May 1995. The import of 40 per cent of agricultural products is still restricted since these are classified as consumer goods. The import of some restricted items has been liberalised by permitting their imports through freely transferable Special Import Licences (SILs). The SIL coverage has been extended systematically since April 1999, freeing various items from restricted to SIL list and from SIL list to the OGL list. Various items also have been de-canalised. Some of the newly freed categories, which were most restricted groups, are agro-products and consumer goods.

It is estimated that for the year 1998-99, there was no NTBs on 7213 products, out of 10281 products (at 10-digit HS-ITC level) for which import policy could be identified in 1998-90 (Mehta, 1999). The number of the products subject to the NTB policy of 'Restricted items' is 27.5 per cent, while there are only 1.7 per cent of products carried out through 'canalised route'. With India's export-import (EXIM) Policy for 1999-2000, products under free list increased by an addition of around 957 products, while only 2134 products are subject to any type of NTBs. According to the estimation of value of index of coverage ratio of NTBs by different sections (21 commodity groups) of HS classification for 1998-99, a large portion, i.e. more than 90 per cent, of India's imports of manufacturing groups is not subject to any type of NTBs (Annexure 1).

Table 3: Different Types of NTBs on India's Imports (Source: Mehta and Mohanty, 1999.)

<table>
<thead>
<tr>
<th>Types of NTBs or Free Imports</th>
<th>1998-99</th>
<th>1999-00</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No of Products</td>
<td>% Share</td>
</tr>
<tr>
<td>Free</td>
<td>7213</td>
<td>70.2</td>
</tr>
<tr>
<td>NTBs</td>
<td>3094</td>
<td></td>
</tr>
<tr>
<td>Prohibited</td>
<td>58</td>
<td>0.60</td>
</tr>
<tr>
<td>Restricted</td>
<td>2681</td>
<td>27.5</td>
</tr>
<tr>
<td>Consumer goods</td>
<td>1378</td>
<td>13.4</td>
</tr>
<tr>
<td>Actual User</td>
<td>56</td>
<td>0.54</td>
</tr>
<tr>
<td>SIL</td>
<td>876</td>
<td>8.67</td>
</tr>
<tr>
<td>Other</td>
<td>721</td>
<td>7.00</td>
</tr>
<tr>
<td>Canalised</td>
<td>477</td>
<td>4.67</td>
</tr>
<tr>
<td>SIL</td>
<td>47</td>
<td>0.40</td>
</tr>
<tr>
<td>Other</td>
<td>130</td>
<td>1.29</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10281</td>
<td>100.00</td>
</tr>
</tbody>
</table>
Indian economy has shown a healthy growth rate after the two years of downturn due to the Asian crisis. It grew at 5.9 per cent in 1999-2000. This is mainly because of high growth of manufacturing sector, 7.0 per cent and service sector, 8.2 per cent of which financial sector is 10.5 per cent. After a decline in growth in 1998-99, exports have shown a significant growth of 12.9 per cent in US$. Software exports, particularly, showed a vigorous growth of over 50 per cent in April-December 1999 and continued to be strong. Buoyancy in exports in the current financial year is led by manufactured exports, consisting of gems and jewellery, ready made garments, transport equipment, cashew nuts, etc. (Table 4). On the other hand, despite heavy imports of oil, growth of over all imports remained at 7.1 per cent in April-November, 1999-2000. The composition of imports in the recent past shows a rising growth of food and allied products, edible oils, capital goods, and gold and silver in April-Nov.1998-99. However, in April-Nov. 1999-2000, growth of above commodities is expected to decline at the cost of significant increase in import of petroleum oil (Table 5).

Table 4: Percentage Change in India's Major Exports (US$)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I Agriculture &amp; Allied</td>
<td>-3.4</td>
<td>-2.7</td>
<td>-11.6</td>
</tr>
<tr>
<td>II Ores and minerals</td>
<td>-9.8</td>
<td>-31.4</td>
<td>-3.5</td>
</tr>
<tr>
<td>III Manufactured goods</td>
<td>8.0</td>
<td>-1.8</td>
<td>17.3</td>
</tr>
<tr>
<td>IV Gems &amp; Jewellery</td>
<td>12.0</td>
<td>20.2</td>
<td>22.6</td>
</tr>
<tr>
<td>Manufactured Metals</td>
<td>12.0</td>
<td>5.4</td>
<td>20.3</td>
</tr>
<tr>
<td>Machinery equipment</td>
<td>33.1</td>
<td>-0.9</td>
<td>-3.1</td>
</tr>
<tr>
<td>Transport equipment</td>
<td>-4.1</td>
<td>-24.8</td>
<td>54.6</td>
</tr>
<tr>
<td>Electronic goods</td>
<td>-3.1</td>
<td>-36.1</td>
<td>19.0</td>
</tr>
<tr>
<td>Cotton yarn, fabrics, etc</td>
<td>4.6</td>
<td>-19.6</td>
<td>9.8</td>
</tr>
<tr>
<td>V Ready made garments</td>
<td>-3.3</td>
<td>-83.2</td>
<td>12.9</td>
</tr>
<tr>
<td>Handicrafts</td>
<td>5.6</td>
<td>4.6</td>
<td>13.6</td>
</tr>
<tr>
<td>IV Crude, petroleum products</td>
<td>26.6</td>
<td>80.7</td>
<td>-66.3</td>
</tr>
<tr>
<td>V Others</td>
<td>11.9</td>
<td>-15.0</td>
<td>136.3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>-4.6</td>
<td>-36.0</td>
<td>12.6</td>
</tr>
</tbody>
</table>

Table 5: Percentage Change in India's Major Imports (US$)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Food &amp; Allied products</td>
<td>-12.5</td>
<td>-21.8</td>
<td>-4.1</td>
</tr>
<tr>
<td>II. Fuel</td>
<td>-18.7</td>
<td>-23.0</td>
<td>54.3</td>
</tr>
<tr>
<td>III. Fertiliser</td>
<td>22.5</td>
<td>-17.5</td>
<td>53.5</td>
</tr>
<tr>
<td>IV. Paper &amp; paper products</td>
<td>0.7</td>
<td>-10.6</td>
<td>-1.6</td>
</tr>
<tr>
<td>V. Capital Goods</td>
<td>-10.4</td>
<td>-14.7</td>
<td>-23.6</td>
</tr>
<tr>
<td>VI. Others</td>
<td>26.7</td>
<td>29.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Chemicals</td>
<td>0.7</td>
<td>-6.7</td>
<td>4.0</td>
</tr>
<tr>
<td>Pearls, etc</td>
<td>14.3</td>
<td>7.3</td>
<td>40.8</td>
</tr>
<tr>
<td>Iron &amp; steel</td>
<td>-4.1</td>
<td>-21.0</td>
<td>-11.4</td>
</tr>
<tr>
<td>Non-ferrous metals</td>
<td>-16.8</td>
<td>-31.4</td>
<td>-16.6</td>
</tr>
<tr>
<td>Professional Instruments</td>
<td>24.3</td>
<td>16.1</td>
<td>-3.0</td>
</tr>
<tr>
<td>Gold and silver</td>
<td>219.6</td>
<td>261.1</td>
<td>-15.2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>60</td>
<td>97</td>
<td>7.1</td>
</tr>
</tbody>
</table>


3. Statement of the Problem

The unprecedented balance of payments crisis during the early 1991 emanating from high and prolonged fiscal deficits prompted the Government to undertake economic reforms. It had to concede to stringent conditionalities of the IMF and the World Bank for finalising the programme. The long run effects of such policies are gradually felt in the economy, and specific policies are designed and implemented to protect the long term interest of the economy and also to evade the need for reversal of the ongoing reform programme in the country. In this context, there is a need for reviewing the performance of the economy during the period of reforms, and to examine the required changes needed for making the existing economic policies dynamic in order to make the economic growth vibrant and sustainable in the medium term along with macroeconomic stability.

The literature on economic reforms stipulates that critical role of reform is realised with the proper implementation of macroeconomic policies in desired lines. One of the primary objectives of the reform process is to maintain sustainable growth in an environment of macroeconomic stability. According to the 'New Growth Theory', growth is
an endogenous variable, which is determined by various factors including investment. The literature on economic reforms also supplements the argument and presents the theoretical linkages between savings, investment and growth. In terms of interrelationships among the variables, the causation runs from savings to investment, investment to growth, and finally growth to savings. In this context, the sustainability of economic growth in the medium term is closely linked with the behaviour of savings and investment. In the WBI-propelled reform framework, policies are designed to promote savings and investment and their determinants.

The reform programme attaches greater importance to private sector participation in economic activities. The private sector should take the lead in promoting savings and investment in the liberalised phase, provided suitable policy environment is created to improve private sector participation. The existing literature emphasises on the possibility of 'crowding out' effects of public investment on private investment. Though the experiences of countries are not similar in this regard, but such syndrome exists in some countries. If such conditions exist in India, it may be detrimental to its long-term growth. The case is similar when we discuss the issue of savings. According to Ricardian Equivalence hypothesis, propounded by Barro (1974), if public sector saving declines as an offshoot of fiscal consolidation; private saving has a tendency to have additional saving so that the aggregate savings at the national level remain unchanged. The country experiences show that this process is not automatic, and examining the validity of this hypothesis is relevant for India.

The single most important reason for India’s acceptance of reform programme was on account of unsustainability of current account deficit leading to payments crisis in 1991. Sustainability of the trade sector is an important area of challenge for policy makers, as the sector contributes to growth and macroeconomic stability of the country. For sustainability of current account balance, exports are to be promoted and imports to be restrained in a phased manner. However, global markets are highly protected, and various tariff (TBs) and non-tariff barriers (NTBs) are imposed to restrain developing countries to enter into the markets of
developed countries. In this setting, there is a need for examining the factors governing the long-term behaviour of exports and imports of India. Moreover, the response of these variables to the reform policies, are also needed to be examined to assess the efficacy of such policies.

India has undertaken wide ranging liberalisation in the area of tariff policy since the inception of reforms. India's tariff policy is currently facing stiff challenge on two counts. First, India is witnessing constant challenge from the WTO to lower its tariff level in the face of global liberalisation. Secondly, India is engaging itself with various regional/sub-regional/bilateral processes to augment its stake in global trade. Owing to high level of tariff, India is at a disadvantageous position as compared with other partners in different arrangements. Looking at these issues, there is a need for examining the effects of tariff policies of India during the reform period.

The monetary and fiscal policies are used to implement reform programme in the desirable and effective manner. The monetary policy aims at managing the flow of financial resources to the real sector in order to make the growth rate sustainable in the medium term. The financial sector reform helps in maintaining the flow of resources from less productive sector to more efficient ones to optimise the productive capacity of the economy. This requires constant monitoring of the financial and real sector performances, and constantly changing different monetary instruments to keep the monetary management on the desirable track. The Central Banks in different countries choose multiple intermediate targets of monetary policy to maintain the balance between monetary and the real sectors. In India, the Reserve Bank of India has opted for monitoring of multiple intermediate targets. There is a debate on the efficacy of choosing multiple targets versus single target. There is further discussion on the ideal choice of indicators, which are to be considered for multiple intermediate targets.

The fiscal policy is another critical area where the reform so far has been considered to be less effective. The consolidated budget deficit of the centre and the states has increased alarmingly. There is debate on the
reduction of public expenditure so as to bring the level of budget deficit under control. In this regard, 'Wagner hypothesis' is worth examining. The hypothesis stipulates that there is a long-run tendency for public expenditure to grow relative to some national income aggregate such as GDP. This hypothesis has some relevance in the sense that if public expenditure does not contract in a situation of negative growth, it will further add to the intricacies of the economy. In this context, behaviour of public expenditure in relation to certain income index needs to be examined.

In this thesis some of these issues are empirically explored. It is generally felt that the overall activities in the early phase of reforms were different from the latter phase of reforms in India. Therefore, we have taken pre-reform period, 1970-92 (Period I), early reform period, 1992-96 (Period II) and latter reform period, 1997-2001 (Period III) while undertaking empirical analysis in the thesis. The study will broadly bring out the efficacy of policy changes on the economy during the period of reforms and also between two phases of reforms.

4. Objectives

1. to examine the linkages among investment-growth-savings and their contribution to sustainability of medium term growth.
2. to identify the determinants of investment and savings functions in India
3. to evaluate the 'crowding out' effects of public investment on private investment in a deregulated regime.
4. to investigate the linkages between public policies and private savings in a financially deregulated market.
5. to assess the efficacy of adjustment policies and structural factors in regulating export and import behaviour.
6. to examine the efficacy of discrete currency depreciation in India in a Marshall-Lerner framework.
7. to explore the relevance of choosing fixed set of monetary intermediate targets as a monitoring principle for financial deepening in India.
8. to evaluate the effects of income on the long-run behaviour of public expenditure in India.

5. **Hypotheses**

1. Savings and investment are expected to respond to specific adjustment policies during the period of reforms.
2. The public investment is expected to 'crowed out' private investment during the period of reforms.
3. The public saving is expected to raise private savings in a Ricardian Equivalence framework.
4. The exports and imports are expected to respond to macroeconomic policy variations in the medium term.
5. The low combined elasticity of exports and imports is expected to neutralise the effects of expected devaluation in a Marshall-Lerner framework.
6. The choice of multiple intermediate monetary targets for monitoring financial sector liberalisation is expected to be a better alternative to single intermediate monetary target.
7. The public expenditure is expected to grow hand-in-hand with some national aggregates in the framework of Wagner's law.

6. **Methodology**

6.1. **Sample and framework**

The present study focuses on the macroeconomic analysis of India. In this case the unit of analysis is India. In this study data at the national level is collected for examining the impact of reforms. We have also used international data for the study at the national level. Depending upon the requirement and the availability of data, the study has used both domestic and international sources of data for the purpose.

For analysing macroeconomic reforms in India, we have not used state level data. Analysis at the state level is not within the purview of the study. One of the inhibiting factors for not using state level data is the non-
availability of data in several states. While developed states like Punjab and Haryana have well developed databases, poor states fail to match advanced states in this regard. Moreover, databases relating to macroeconomic variables are not available at a comparative basis among the states. There are problems not only about the availability of data but also regarding periodicity of their publications. For these reasons, there was strong preference for working with the national level database.

6.2. Study Period

The period under consideration for the present study is between 1991 and 2002. During this period India pursued countrywide economic reforms to correct its economic fundamentals and also to overcome payments crisis. There are discussions in the literature that India's economic reforms pass through several phases of reforms in the 1990s. The period of 1991-93 is considered as the period of stabilisation. India entered into the 'second-generation reforms' in the latter part of the last decade. Despite the fact that there were several small duration policy regimes that existed in the 1990s and also continued in the present decade, we consider the entire period as a single period for the present study because the whole countrywide reforms took place in India for the first time and it became enduring.

For the purpose of comparison, 1981-90 is taken as a reference period when partial reforms took place in certain sectors of the economy. In 1981, India took Extended Fund Facility (EFF) from the IMF. For executing EFF, India had to undergo partial reforms, which adversely affected certain sectors\textsuperscript{17} of India. For making comparison between the reform period and the reference period, quarterly data are used for the analysis. For examining broad trends in major economic variables, annual time series data are used since 1960. It is primarily used for analysing macro aspects and also trend analysis. Therefore, for the different sets of analysis, we have used different time periods.

\textsuperscript{17} It is empirically estimated by a study (Nambiar and Tadas, 2000) that the reform programme in the 1980s had adversely affected certain sectors of the country. Their results show that excessive importance to the external sector was responsible for the contraction of the industrial sector during the reform period.
6.3. Database

The study is based on secondary source data. For analytical analysis, both official sources of data from India and various other multilateral organisations databases are used. As discussed earlier, we have collected information at different levels of disaggregation. They are primarily: a) annual, b) quarterly, and c) monthly data. We have collected annual data for almost all the aspects of economic activities. We have time series data for these variables since 1960. The sources of annual data include Reserve Bank of India, DGCIS, Ministry of Finance, World Bank, International Monetary Fund, UNCTAD and other multilateral bodies. For the present study, quarterly data is collected for 103 variables, starting from the first quarter of 1981 to the first quarter of 2003. The coverage of this database is primarily macroeconomic variables. This database is developed on the basis of information provided by the International Monetary Fund.

In order to supplement quarterly data, monthly data are taken from the Reserve Bank of India source. These variables are consumer price index, wholesale price index, production base index and two variants of Real Effective Exchange Rate (RER). While constructing the time series database, we found that those variables are not conforming to a single base year. We have adjusted those variables to bring them to a single base period in order to make the series consistent and comparable with other variables. Following construction of consistent database with single base year for all monthly data, appropriate methodologies are used to construct a quarterly data series. The monthly data was collected since January 1981 to October 2001. The remaining monthly data was generated through macroeconomic forecasting.

We have used various publications of national and international multilateral bodies for building database of the present study. The major publications referred to for this study are the following:

1) Currency and Finance, Reserve Bank of India, Mumbai.
2) RBI Bulletin, Reserve Bank of India, Mumbai.
3) Handbook of Statistics of Indian Economy, Reserve Bank of India, Mumbai.
4) Customs Tariff, Foundation of Business Academic, New Delhi.
5) Central Excise, Foundation of Business Academic, New Delhi.
8) Direction of Trade Statistics Year Book, International Monetary Fund, Washington D.C.
9) Balance of Payment Statistics Year Book, International Monetary Fund, Washington D.C.
10) World Development Indicator, World Bank, Washington DC.
6.4. Statistical Techniques

In the present study, the linkages between various sectors are examined using different sets of data. Depending upon the requirement of the analysis different methodologies are used in different chapters. Broadly, we have used the following techniques:

a) Regression analysis

In different chapters we have used regression analysis\(^\text{18}\) to study the dependence of one variable on one or many variables. In these studies, we have used mostly time series data to examine the logical relationships between variables. In time series analysis, there are problems relating to serial correlation. We have used Durbin-Watson statistics for testing serial correlation in different equations. For regression analysis, we have mostly used annual data for analysis.

b) Cointegration Analysis

In time series analysis, regression results very often convey meaningless relationships between variables due to lack of stationary conditions in the associated variables. In case, the dependent and independent variables are non-stationary in character, the results of the regression may not be acceptable in terms of statistically significant test. Therefore, stationary conditions are examined for the stability of regressions. If a time series is stationary, its mean variance and autocovariance remain the same.

The unit root test is generally used to examine the non-stationary situation of a variable. The Augmented Dickey Fuller (ADF) test is used to examine the significance of the computed unit root test coefficient. We

\(^{18}\) For the regression other econometric analysis, E-Views and Shazam softwares are used in the study.
have used Mackinon's test to accept or reject the hypothesis, thereby showing the stationary condition of the series.

After testing for the unit root, cointegration test is applied for examining the order of cointegration of the non-stationary variables. It is essential to know the order of cointegration of individual variable because variables only with the same order of cointegration can be engaged in regression models. Both 'trend stationary' and 'difference stationary' approaches are used to remove the influence of trend element from the variables. This approach helped us to determine the order of cointegration between variables. After examining the order of co-integration of different variables and choosing variables of the same order of co-integration, we try to examine whether short term and long term relationship can be feasible. The error correction mechanism is used to establish the relationship between independent and dependent co-integrating variables.

C) Granger Causality Test

Regressions model is appropriate in estimating relationship between one variable with a set of other variables, but it is rather handicapped in showing the exact causal relationship between two variables. In an analysis using time series data, the relationship between two variables may be shown high, but they may not be so in reality. This may be due to strong trend factor existing in the data series. The Granger Causality Test (1967) is based on time series analysis. The test assumes that information relevant for prediction of variables is solely contained in the time series data. Using different forms of lagged variable models, the test provides one of the alternative relationships (both causing each other simultaneously, one causing the other, complete independence between them), between two time series variables. The test ultimately uses F-test to examine the level of significance of the statistical relationship. There is discussion on the number of lags to be included in the causality model.

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19 Whether two ore more non-stationary variables with same order can be cointegrated or not, will be determined by the Error Correction Mechanism.
7. Chapter Scheme

The present chapter presents the overview of the study. A survey of literature on different policy aspects of economic reforms and experiences of countries during the period of stabilisation and structural adjustment are presented in chapter 2. The linkages between growth, savings and investment are discussed in chapter 3. The relationship between exchange rate regime and performance of the external sector is discussed in chapter 4. The role of monetary policy and fiscal policy in managing the macroeconomic situation of India is discussed in chapter 5. The last chapter concludes and presents some policy suggestions.