Chapter 6

Conclusion

The world economy has been passing through a critical phase of economic upswings, and a sign of recovery is noticed in the last quarter of 2003. Two major problems of the recent times have been perpetuation of recession in the industrialised countries and persistence of macroeconomic failure in a number of developing countries. The most vibrant region of East and South-East Asia in the world was struck with currency crisis in the second half of the 1990s and the crisis continued for over two years. Slowing down in the pace of economic growth in large economies such as the US and Japan had adversely affected global demand for trade. Furthermore, partial success of Doha Development Round (2001) and failure of the WTO Ministerial Meeting of 2003 in Cancun, have given a jolt to multilateral process of trade negotiations, and hence, to global trade prospects.

With a view to revitalize the world economic system, both the Bretton Woods financial institutions, i.e. the World Bank (WB) and the International Monetary Fund (IMF), have been supporting the neoclassical ideas of liberal economic policies in developing countries to tide over the present situation by subjecting these countries to systematic structural adjustment processes. Both the WB and the IMF believe that inability of the developing countries to have control over widening trade deficit has led to an increase in trade restrictions, sectoral protectionism and renewed resort to inward oriented trade policies. These problems are perceived by them as structural problems of these countries, which are due to market imperfections in the system, and hence, appropriate measures are required to circumvent any such impediments to the liberal trade practice, perpetuation of market distortions, anomalies in domestic prices, imbalances in fiscal and monetary norms, etc.

The broad policy perceptions of Bretton Woods Institutions (BWIs) are influenced by the monetarists' prescriptions. The stabilisation programme of the IMF and the Structural Adjustment programme (SAP) of the World
Bank are based on similar perceptions regarding the policy packages and their goals. It is believed that these policy packages would achieve acceleration of the world trade by restructuring the economies of the adjusting countries, and facilitate the immediate payments requirements in the short run to generate growth impulses in the long run. The validity of these perceptions is yet to be verified from country experiences. Often, the resource-hungry developing countries that are on the verge of economic collapse in view of the successive doses of external shocks like deteriorating terms of trade, hike in oil prices, rise in international real interest rate, etc. on the one hand, and the domestic mismanagement of the economy on the other, have been left with limited option but for resorting to adjustment programmes even at a great social cost with varying degrees of loan-linked conditionalities. Very often the terms of reference of such conditionalities are so stringent that they have come on the way of normal functioning of the governments, and marginal deviation from such conditionalities have led to termination of reform programmes.

During the last two decades, several countries resorted to structural adjustment programmes due to severe macroeconomic difficulties including payment crisis on account of domestic and external shocks. It is argued that reform programmes may support in improving balance of payments viability, price stability and sustained rate of growth. The reform programmes are undertaken in two phases where stabilisation programme attempts to bring down expenditure near to the level of domestic income and the structural adjustment programme supports in setting growth process as sustainable. While the stabilisation programme emphasises on specific programmes like reduction of subsidy, reduction of public investment, credit ceilings, setting positive real interest rate, control on money supply, etc., the structural adjustment policies include devaluation, trade liberalisation, relaxation of the regulation of export turnover, liberalisation of domestic prices, etc. The impact of such policies on the Indian economy has been mixed in terms of different economic variables during the 1990s. Therefore, there is a need to make an in-depth study of the Indian
economic reforms process so as to understand its dynamics and focus upon its sustainability in future.

India undertook economic reforms under a difficult situation in 1991 with stringent conditionalities of the IMF and the World Bank. There is a need for examining the required changes for providing more dynamism to the existing economic policies in order to make the economic growth vibrant and sustainable in the long run. The critical role of reforms is realised only when major macroeconomic variables achieve their pre-determined targets. The price factor in the domestic economy plays an important role during reforms. One of the major objectives of reforms is to maintain a balance between domestic and external prices. Volatility in the level of inflation and exchange rate may jeopardise advantages gained in other areas of reforms. The exchange rate stability has been an important issue during the reforms. With a stabilised inflationary situation, the partially managed floating exchange rate may have positive and enduring impact on the performance of the external sector. But there are apprehensions of declining of the effectiveness of exchange rate vis-à-vis exports. The changes in the exchange rate regimes in the 1990s and its impact on the performance of the external sector are yet to be examined in a rigorous way.

One of the most important objectives of the reforms process is to resume steady growth in an environment of macroeconomic stability. The growth has to be backed by domestic and foreign direct investment in a sustainable manner. There are conflicting linkages between private and public sector investments. Often private investments are not forthcoming in various economic activities, because they are 'crowded out' by the public sector investment. Stagnancy in the investment rate in recent years is a major concern for stimulating growth. The East and South-East Asian countries have been maintaining high growth because their investment rates are much higher than savings ratio, and the foreign savings mostly supports the sustainability of these investment rates. In this context, the role of Foreign Direct Investment (FDI) is very important as outlined in the Tenth Plan document. The efficacy of the present policies of the Government in regard to inflow of FDI is an issue,
which has to be examined. For the sustainability of economic growth, private investment should take the lead with the support of domestic savings. There is a need to examine the extent to which the domestic saving has contributed to the growth of investment in India. The management of the resource gap and the role of foreign savings in closing the gap remains an important issue for critical examination.

The Bretton-Wood institutions perceive the macroeconomic instability as a monetary disequilibrium under the neoclassical framework, and most of their policies are influenced by the monetary approach to balance of payments. In developing countries, the size of the monetary sector is often small, thus it becomes difficult to bring macroeconomic stability with the use of monetary policies alone. The combined efforts of fiscal and monetary policies seem to be effective in maintaining macroeconomic stability. Therefore, there is a need to examine the complementarities between monetary and fiscal policies in managing macroeconomic stability in India during the period of reforms. In this context, issues like inflation-targeting, interest rate-targeting also need to be examined.

Achieving fiscal stability has been a major objective of India during the period of reforms. The combined fiscal deficit ratio of Centre and States exceeded 10 per cent in 2002-03, which is alarming for the macroeconomic management. In the early 1990s, same syndrome was surfaced in India leading to major payment crisis in 1991. The government of India has taken several initiatives to reduce the burden of fiscal deficit and to keep it within a reasonable limit. The issue of fiscal targeting in the context of Indian economy is another issue, which requires more in-depth analytical and empirical examinations.

The reform programmes have given high priority to the external sector to complement the economic growth process in India. Changes in the trade policy regime had significant bearing on the performance of the external sector. Similarly, modifications in exchange rate regimes have also to a large extent contributed to this process. There have been several other policy changes to improve upon the performance of this sector. Despite such policies the external sector has been becoming
stagnant in the recent years. There is a debate on the effectiveness of capital account convertibility in promoting external sector performance. There is also increasing pressure from the WTO to liberalise trade sector along with many other areas for a freer global trade. The implications of such policy changes for the external sector need to be examined. Like many outward-oriented economies, India is actively engaged in a number of Regional Trading Arrangements (RTAs) and Bilateral Trading Arrangements (BTAs) to improve its presence in the global market. In this context, the export competitiveness of India requires to be examined and export potentials to be estimated in order to gauge the strength of India’s exports to pursue liberal regional policy to integrate itself with the global economy.

The Indian economy has slowed down in the second phase of reforms during 1997-02. Examining the existing policies and performances in different sectors, there is both a gap in the existing academic literature and policy oriented studies in terms of identifying some of the core reasons for the slowing down of the Indian economy. For achieving 8 per cent per annum average growth rate as envisaged in the Tenth Five Year Plan (2002-07), there is a necessity to lay down a policy agenda based on more in-depth research on the issues as analysed and highlighted in the preceding paragraphs. It is in this context, that the present thesis tries to explore both analytically and empirically, with the use of the latest available statistical and econometric tools, some of the above-mentioned issues and attempts at drawing policies inferences from them.

Hence, the main objectives of the thesis were: to identify factors contributing to savings, investment and economic growth in different periods of reforms; to examine implications of reform policies on selected macroeconomic sectors / variables of the economy, such as trade, exchange rate, growth rate, savings and investment, monetary, fiscal sector, etc.; to review the experience of developing countries with economic reforms; to identify determinants of the external trade and to measure its long-term dynamic behaviour; to examine the linkages between exchange rate and performance of the external sector; to
examine the appropriate mix of monetary and fiscal policies for addressing domestic macroeconomic imbalances; to examine the efficacy of the fiscal policy in maintaining fiscal balance.

In order to achieve the above-mentioned objectives, certain hypotheses have emerged from the understanding of the existing literature. These were tested with the help of various econometric techniques. In the present study, the linkages between various sectors are examined using different sets of data. Depending upon the requirements of analysis different methodologies are used in different chapters. For the behavioural analysis of economic variables, standard techniques like arithmetic mean, standard deviation, growth rate, coefficient of variation, etc are used. In some chapters regression analysis is applied to study the effects of exogenous variables on endogenous variables. In time series analysis, the possibility of serial correlation is tested with Durbin-Watson test. In case of detection of autocorrelation in the model, corrections are made using auto regressive model. The Granger Causality Test is used to examine the cause and effect relationship between different pairs of variables.

The study is primarily based on time series analysis, and there are possibilities of non-stationarity problem in such variables. In such cases, regression results may not be appropriate in conveying meaningful relationships between variables in the model. Appropriate econometric tests have been used to correct such biasness in regression equations such as unit root, test for cointegration and error correction mechanism. For managing data gap in macroeconomic variables we have used ARIMA model, considering sensitivity of reform programmes in India.

The results from the empirical investigation in a synthesised form are summarised at this stage. In the fund-supported programmes, resumption of growth has been accorded priority as a long-term issue. The short-run stabilisation policies are generally inimical to growth where emphasis is given to apply restraint on aggregate domestic demand and to pursue appropriate exchange rate policies. These demand-driven policies may have adverse effects on important economic
variables/sectors such as growth, employment, economic activities and social sector. Therefore, the short-run effect of stabilisation programme is to reduce absorptions, which may eventually lead to decline in output, reduction in the level of real productive investment and a fall in the real savings rate. The long-term aspects of reforms deal with critical issues such as real economic growth, productivity, employment, domestic savings, investment, foreign savings, FDI in the framework of supply-side policies, etc. These policies focus on enhancing productive potential.

The supply-side policies emphasise that saving is the most important determinant of investment. It is argued that effective interest rate policy and financial sector reforms are key factors in raising savings rate during the period of adjustment. The recent studies show that there is a positive and significant relationship existing between savings rate and rate of interest. Liberalisation in interest rate is likely to boost savings is changing individuals' portfolio savings, foreign savings, etc.

Macroeconomic theory stipulates that capacity of the economy can be expanded depending upon the nature, size and quality of capital stock added to the production system. The growth rate of output is largely contingent on capital stock of new capital for aiming towards higher growth. The structural adjustment programmes support those policies that favour investment and savings. In this context, interest rate policy plays as an equilibrating factor between savings and investment. In the short-run, growth can be maintained with optimal utilisation of available resources, but in the long-run, productive capacity can be enhanced with increased levels of investment with its quality. In the literature, there is debate on the 'crowding out' effects of the public sector on private sector, and that the adjustment policies are aiming at neutralising such effects to promote private sector investment. Such policies encourage growth of public sector investment in infrastructure, which may be instrumental in promoting private investment.

The empirical analysis contained in the thesis examined some of these issues. The results show that growth of output was highly volatile during 1960s and 1970s, but remained more stable in the 1980s and
1990s. In the latter two decades, realised growth was much closer to the target growth rate. In the 1980s, growth rate was not sustainable, but this trend was reversed in the 1990s. In the 1990s, high growth rate was mostly supported by the services sector, whereas it was mostly propelled by agriculture and the manufacturing sector in the 1960s and the 1970s.

One of the high-priority goals of economic reform is sustainable and persistent growth in the medium term. Economic growth is critically dependent on investment, which is instrumental in optimising productive capacity in the economy. In the period of economic crisis, the credibility of domestic policies is often doubted, and private investors delay their investment decisions until credible policy environment is re-established. During this period, the primary task is to invigorate investment through designing appropriate policies. It may be noted that investment is mostly financed by savings behaviour of the country, and also supported by other factors such as financial saving, foreign direct investment, foreign borrowing, etc. The theoretical linkages between growth, savings and investment indicate that there is one-way causation existing among the three variables. The causation linkages move from growth to investment, investment to savings and finally growth to savings. Since growth is an endogenous variable, the reform policies are mostly focused on savings and investment to promote growth. The reform policies have given high priority to private savings and private investment to maintain sustainable growth. In this context, we have studied the behaviour of growth, savings and investment in a historical context and drawn inferences. We have observed that the performance of the Indian economy has marginally declined in the second phase of reforms as compared to initial phase. In the present analysis, therefore, three time periods are taken such as pre-reform period (1970-1991), first phase of reform (1992-96) and second phase of reforms (1997-2001). In the present thesis, we have empirically examined the following issues: (a) determinants of investment function, (b) determinants of savings function, (c) 'crowding out' effect of public sector investment on private investment and (d) relevance of the Ricardian equivalence in the context of India. The
results reveal that aggregate investment and savings respond to reform policies and also to other structural factors. The public sector investment has a 'crowding in' effect on private investment in the pre-reform period, and it became robust during the reform period. The Ricardian equivalence hypothesis is partly relevant for India in which the reduction of public saving is compensated by additional savings from the private sector to maintain the aggregate level of savings. The thesis also reveals that the growth prospects of India are positive and sustainable in the medium term. Currently India is at the rising phase of a new business cycle, and the present growth trends are likely to sustain up to 2008.

Trade liberalisation in India almost started simultaneously with overall economic reforms in India in 1991, analytics of which are also analysed in the thesis. The trade sector responded positively to the new trade and other macroeconomic policies. The response of the external sector was realised in the form of increasing aggregate exports, restraint on imports, reduction in current account deficit, increase in the flow of invisibles, surge of foreign reserves, etc.

One of the important reasons for the amelioration of the external sector performance was due to change in the exchange rate regimes. Though India passed through a series of intermediate phases of exchange rate regimes in quick succession in order to reach the present stage of managed floating rate regime, the impact of changed regimes has lasting impact on the performance of the sector.

Under the trade policy reforms, one of the areas where deep reform programme is undertaken is customs tariff. In the first phase of customs liberalisation, the number of tariff bands was reduced and later the number and magnitude of peak tariffs were progressively reduced. In 1991, substantial number of tariff lines was hovering around 100 per cent, and the mode tariff band declined to 30 per cent in 2002-2003. Because of change in the magnitude of tariff bands, the average MFN tariff has come down to 27.5 per cent from 100% in 1986-87 and 99.2% in 1991. The decline in the tariff rates are felt in all sectors, but the sharp cut was noticed in the industrial sector.
Performance of the trade sector in different trade regimes since 1956 is discussed, and the results reveal that trade gap declined in the first phase of reforms, but the situation deteriorated in the latter phase of reforms. This raises questions about the factors governing exports and imports in India and the manner in which exports and imports are responding to reform policies.

Taking reform experiences of many countries in the literature survey, we have chosen several determinants of both export and import functions, including both policy and structural variables. We have used unit root and two-step Engel-Granger (1987) cointegration technique to check stability of long term import and export functions. We found that behaviour of import and export functions in the long run are stable and responding to the signals of reform policies along with other structural factors.

Recently, there is pressure to devalue the Indian Rupee on account of its appreciation. The rupee appreciation in the recent time is owing to the appreciation of US Dollar, which is likely to settle with booming of the economy. Since 1960, the efficacy of devaluation has been a debatable issue. Besides there is apprehension about the appropriateness of monetary approach to balance of payments using exchange rate as the controlling instrument for trade. To these queries, Marshall-Lerner hypothesis provides a solution, which we have tested for India. The hypothesis stipulates that if the combined elasticities of exports and import are more than unity, the country is likely to gain from effective exchange rate devaluation and there will be an improvement in the trade balance. The results show that India is likely to gain in reducing its trade imbalance if it undertakes devaluation. It is also revealed that devaluation in the pre-reform period could have benefited India.

One of the prime objectives of adjustment programmes is to achieve sustainable balance of payments through prudent domestic credit expansion. In this regard, monetary policy has the central role in this approach and fiscal policy plays a supportive role, ensuring that the ceiling on domestic credit expansion is not exceeded because of the need to finance a large than anticipated fiscal deficit.
In the management of the reform policy, fiscal policy is assigned the role of ensuring that there is sufficient domestic saving, in general, and public saving, in particular, to guarantee that the investment requirements associated with the growth target are met without threatening the balance of payments and inflation objectives. It is also mandated to release resources to finance additional investment if private saving does not adjust to offset changes in public saving.

Monetary policy is primarily concerned with controlling inflation and achieving a sustainable balance of payments, and for realising these broad objectives; it needs to be closely coordinated with fiscal policy. The role of monetary policy may be limited without achieving fiscal discipline.

The issues in fiscal policy and monetary policies are complex and many. It is, in fact, impossible to examine several issues empirically for India given the limited scope of the study. There is ongoing debate regarding the fiscal policy about downsizing the level of public expenditure to reduce budget deficit. The dominance of the public consumption should be scale down to have less pressure on the budget deficit. It is argued that the dominant role of the State in economic activities needs to be reviewed.

Monetary policy and financial sector liberalisation cover large number of areas. One important issue emerging is that financial development is instrumental in supporting output growth in India. Reduction of liquidity from the monetary system may adversely affect output even in the short run. Therefore, there is a need for choosing appropriate intermediate targets of monetary policy to monitor the activities of the real sector. Appropriate monitoring of real sector activities by the monetary policies may help in maintaining sustainable growth.

In the thesis we have elaborately discussed about the issues and trends in the fiscal and monetary sectors in India. It is shown that there has been significant level of deregulation in monetary and financial sectors, and there are many more things in the future agenda. In the fiscal sector, India's records in reforms are relatively lower than other
sectors. There is a need for reduction of consolidated budget deficit of both States and Central Governments, and further fiscal consolidation measures need to be taken to avoid further deterioration of the macroeconomic stability.

Empirically, we have examined some of the hypotheses for India. For scrutinising the efficacy of monetary policy management, we have examined the transmission mechanism between economic development and the financial development. In a practical sense, it is difficult to identify a variable, which can properly represent financial development. It is because the importance of different variables undergoes change during the course of financial development in a country, thus, we have to look for the most ideal set of variables to represent the financial sector development.

For the empirically examining this issue, we have used unit root, Engle-Granger cointegration test and Granger Causality test. Cointegration approach is to examine the possibility of having long run relationship between economic and financial development variables. The actual causality between the variables is tested with to Granger Causality test.

Based on the literature, five most commonly used proxies for financial development are considered for this purpose. They include the ratio of money to income (M2Y), the ratio of banking deposit liabilities to income (BDLY), the ratio of private sector credit to income (PcImY), the share of private sector credit in domestic credit (PCImDC) and the ratio of domestic credit to income (DCY). The economic development variable is represented by per capita income (Y).

Unit root test suggested that selected variables are not stationary at the level, but they are first order difference stationary. The results of long run cointegrating equation show that all the models are statistically significant, indicating that the variables have long run stationary relationship. The level of significance for the coefficient of PCImDC (private claim to domestic credit) is relatively weak than others. We have tested the short run first-difference models using ECM, and found that the coefficients are negative and they are in the range between -0.32 to
The cointegration results endorse that the long run relationships of economic indicator with all the financial development indicators have been stationary and statistically significant.

Results of Granger causality show that there is unidirectional relationship between financial development and economic development, but the reversibility of such relationships is not excising. The results show that financial development plays a significant role in supporting economic growth in India. There is a need for choosing appropriate intermediate targets of monetary policy to represent financial development. With the change in the deepening of the financial sector, the role of certain intermediate targets of monetary policy undergoes change as shown in the results. It is therefore emerging from the results that India's policy is appropriate in choosing multiple intermediate targets of monetary policy. But careful approach should be adopted to choose appropriate target for monitoring real sector activities from time to time.

In the context of downsizing the public expenditure in view of ongoing reforms, we have chosen to test the relevance of the Wagner's law in India. The contention of the Wagner's law is that there is a long term tendency for public expenditure to grow relative to some national income aggregate such as GDP. The Law further explains that public expenditure increases at a faster rate than that of national output. Public expenditure in the Wagner's law is treated as an outcome, rather than a cause of growth in national income.

On the contrary, Keynes's General Theory has contested the position of the Wagner in regard to role of public expenditure in a modern economy. It is argued by Keynes that public expenditure is an exogenous factor, which can be used as a policy instrument. The role of Government is crucial in augmenting economic activities in an economy. In this case, the causality may run from public expenditure to growth of income. But in case of Wagner's law, the causality should run in the reverse direction (i.e. from income to public expenditure).

In this analysis we have examined (a) whether there is a long-run relationship existing between public expenditure and GDP and (b) the direction of causality between the two in India.
There are at least six versions of Wagner's Law existing in the literature, and we have chosen all the existing models for empirical examination. We have found that all the model indicators are first order difference stationary. The cointegration results indicate that expenditure is dependent on income and the long run relationship is stationary, but the direction of causality is not clear from the cointegration test. There is a strong causality running from expenditure to income and reverse causality is not found except in one case. In one of the six models, public consumption expenditure and GDP have bi-directional Granger causality indicating that both the variables support each other in two-ways. However, the overall picture based on different variants of Wagner's Law is not supporting the Wagner’s law in case of India, and favouring Keynes’s position that public expenditure has a strong impact on aggregate income in India.

Conclusions and Recommendations

The impact of the economic reforms on the Indian economy is mixed, as the empirical analysis of this thesis suggest. There has been significant improvement in the performance of the external sector during the last one decade. Exports and imports increased rapidly at the beginning of the reform programme. There has been persistent improvement in the level of foreign exchange reserves. The level of inflow of invisibles is increasing steadily over the years. But, the performance of most of the macroeconomic variables has been slowing down in the second phase of reforms.

The results of the study indicate that growth rate has slowed down during the period 1997-01 and to achieve target growth rate of 8 per cent under the Tenth Five Year Plan the investment rate would have to be increased. Since the investment ratio is coming closer to that of savings, the resource gap is disappearing. The investment ratio needs to be increased with the support of increased savings ratio and foreign saving. It is important to note that household savings and corporate savings are increasing steadily during the second phase of reforms, and
this is a favourable development. Public investment in infrastructure has crowded in private investment in India.

The current account deficit is growing in recent years but substantial part of imports is financed by exports and the ratio between the two is almost maintained during the second phase of reforms. The real exchange rate has shown very little influence on real exports and real imports in India. The issues such as inflation targeting and interest rate targeting are examined in the thesis. Alarming growth of combined budget deficit is a major concern in recent years. An attempt has been made to examine the possibility of targeting budget deficit in India.

In the thesis we have examined the implications of different trade regimes on the performance of the external sector. We have identified eight trade regimes between 1956-01. The results show that there is a significant relationship existing between the two. We have used unit root and cointegration analysis to identify the determinants of the real exports and imports. The long-run export is determined by effective tariff, world demand and export prices. The reform period has significant impact on exports. Similarly, long-run imports are determined by real import prices, real exchange rate reserves and real domestic output. The results indicate that reform has an important impact on real import. The results show that India is likely to gain in reducing its trade imbalance if it undertakes devaluation as per Marshall-Lerner hypothesis.

It may be concluded that reform has some impact on the domestic economy. The reform process has slowed down in the second phase of reforms. The second phase of reforms is marked by slow growth with high degree of instability.