Chapter 7

Conclusion

7.1 Introduction

Fiscal policy and fiscal instruments are tools to achieve specific macroeconomic and sector wise objectives. This has been reflected in the literature review done earlier, of books on public finance as well as in research articles of A. Bagchi, Raja Chelia, Petter Heller, Indira Rajaraman, C. Rangrajan, Urjit Patel and other public finance experts. All these sources reflect that there is a connection between fiscal policy and economic growth. An effort to study this relationship has been made in this study. This relationship has been studied, at aggregate macro level, sector level and at firm specific level. A large number of published researches were referred for getting useful insight on the subject both theoretical and empirical in an attempt to design research methodology and to drawing relevant conclusions. An attempt has been made in this thesis to realize the present fiscal situation in India by using proven public finance method such as Mundell Fleming Model, Inter temporal Budget Constraint Method and Domar Debt Model. Major conclusions of the study are presented in following paragraphs.

7.2 Findings and conclusion from fiscal policy and fiscal deficits in India

First three objectives were tested by using secondary data during a time period of 1980-81 to 2011-12.

Outcome of the first objective, namely “To find out the impact of fiscal deficit on trade balance, foreign exchange reserve, prices and output in India”; came with the conclusion that fiscal policy has a positive impact on foreign exchange reserves and the impact is very substantial. However, impact of fiscal deficit on trade deficit is negative and it reduces trade balance. Also when there is a relatively high fiscal deficit in the economy because government’s expenditure has exceeded revenue; government has to borrow even to meet out its current expenditure. In such a case, fiscal deficit results in a larger increase in prices than output in India.

Second objective, “To derive the steady state debt income ratio and sustainable primary deficit” was tested by using Inter temporal Budget Constraint Method. The result revealed that from 2002-03 onwards due to fiscal consolidation program and FRBM Act fiscal situation is in control. Further, during 2002-03 to 2011-12 GDP growth rate has far exceeded real interest rate. This indicates that higher GDP growth rate than real interest rate can absorb fiscal shocks to certain extent. Steady state debt income ratio was derived from year 1991 to 2012 and it has come to 0.687025.

It can be concluded that due implementation of FRBM Act, the steady state debt income ratio $\bar{b}$ has reduced significantly from 2.725097 for a period of 1991-92 to 2002-03 to 1.21578 for a period of 1991-92 to 2005-06 to 0.687025 for a period of 1991-92 to 2011-12. This positive
outcome is attributed to FRBM Act. Similar trend is observed when steady state debt income ratio is calculated from 1980s onwards. The value of $\bar{b}$ is 1.404183 for a period of 1980-81 to 2002-03; 1.139777 for a period of 1980-81 to 2005-06 and finally 0.8528277 for a period of 1980-81 to 2011-12. Reduced value of $\bar{b}$ realized for a period of 1991-92 to 2005-06 and 1980-81 to 2005-06 shows immediate effect of fiscal consolidation program while that of $\bar{b}$ for a period of 1991-92 to 2011-12 and 1980-81 to 2011-12 shows somewhat distant effect of FRBM Act and resulting fiscal discipline.

There was a divergence between debt ratio and steady state debt income ratio from the year 1994-95 and 1998-99 and again in the year 2009-10; however this divergence has reduced from 2007-08 onwards. While checking the sustainability of primary deficit by this method; it has been found that from the year 1994-95 to 1996-97, the actual primary deficit ratio was below the sustainable primary deficit ratio due to favorable economic circumstances as the growth rate of GDP at 7.97 percent was highest in the 90s and on the other side interest rate at -1.94 percent was lowest during the decade. Since, year 2002-03 onwards sustainable primary deficit is higher than actual primary deficit thereby implying that the Indian economy is in a safer zone. However actual primary deficit ratio compared with average sustainability of primary deficit; signals a threat for the economy. Computation of primary deficit by considering the debt and GDP of the economy for a period 1980-81 to 2002-03 gives the value of $b_t = 0.036607 + 0.973929 b_{t-1}$ and the same computation for the period of 1980-81 to 2011-12 reveals the results $b_t = 0.031567 + 0.962985 b_{t-1}$. This says that $(1+r)/(1+g)$ has reduced from first bracket of estimation (1980-81 to 2002-03) to second bracket of estimation (1980-81 to 2011-12) from 0.973929 to 0.962985. This minor positive change reflects significance of FRBM Act, as it has stipulated numerical targets for deficits.

The analysis shows that while primary deficit to GDP ratio analyzed for a comparatively large time frame, it is found that it has reduced from 0.036607 for a period of 1980-81 to 2002-03 to 0.0340287 for a time frame of 1980-81 to 2005-06 to finally 0.031567 for a period of 1980-81 to 2011-12. While comparing primary deficit to GDP ratio for 90s to year 2011-12, it has been revealed that the ratio has gradually reduced from 0.0260957 for a period of 1991-92 to 2002-03 to 0.0237282 for a period of 1991-92 to 2005-06 and finally to 0.02292 for a period of 1991-92 to 2011-12. Thus it can be concluded that primary deficit to GDP ratio has reduced to a greater extent from 1991-92 to 2011-12 compared to years 1980-81 to 2011-12. This fiscal consolidation is because of FRBM Act enacted, from year 2003 onwards. Similar trend is observed for $(1+r)/(1+g)$ for a period of 1991-92 to 2011-12 and 1980-81 to 2011-12 but the extent of their rise and fall is different from both the time frame. Ratio of $(1+r)/(1+g)$ has reduced from 0.973929 for a period of 1980-81 to 2002-03 to 0.970144 for a period of 1980-81 to 2005-06 to finally 0.962985 for a period of 1980-81 to 2011-12. The ratio of $(1+r)/(1+g)$ is comparatively more close to 1 in time frame of 90s compared to that of 80s. Value of $(1+r)/(1+g)$ is 0.990424 for a time period of 1991-92 to 2002-03 which is very close to 1; this shows that if growth cannot be maintained, the debt to GDP ratio may start rising and government can reach the edge of insolvency. Partly it also reflects the 1991 crisis and subsequent period taken for the
adjustment process. However, after that \((1+r)/(1+g)\) ratio has reduced to 0.9805124 for a period of 1991-92 to 2005-06 and further to 0.966638 for a period f 1991-92 to 2011-12. Thus, it can be concluded that the government has been able to stabilize the deficit and put it on the path towards sustainability.

Further, “To study the decomposition of accumulation of debt relative to GDP” was conducted by using Domar Debt Model. The outcome of the Domar Model says that Debt to GDP ratio has reduced from level of around 83 percent in 2003-04 to around 65.6 percent in 2011-12. The model analyzes that if debt to GDP ratio is controlled it will also control interest payment and if at that time revenue receipts relative to GDP is maintained, government can balance its revenue account and eliminate dissaving. This can allow the economy to achieve a higher level of growth on sustainable basis. To achieve the target of reduction in fiscal deficit of 6 (combined of state and central level) percent by year 2019-20, debt to GDP should stabilize at 56 percent. Whenever GDP growth rate is higher than real interest rate, a substantial portion of primary deficit is absorbed by this growth interest rate differential. This has actually occurred in the economy very distinctly from year 1990-91 to 1994-95 and from year 1995-96 to 1999-00 as during this time bracket growth and interest rate differential was 8.050 and 6.943 percent respectively. However in year 2001-02 to 2004-05, only 17.470 percent debt to GDP ratio was absorbed as the growth and interest rate differential was only 1.728 percent.

In chapter 4 named fiscal policy and fiscal deficits in India, regression analysis was carried out to study whether any fall in the public sector savings, implying an increase in the revenue deficit is compensated by rise in private sector or not. The regression equation realized was,

\[
PVSS_{80}(t) = 12664.428 -170.991 PDI_{81}(t) +0.884 PUSS_{82}(t) - 127.900 RIT_{83}(t)
\]

Another regression analysis was carried out to understand how interest rates and revenue receipts affect the combined capital expenditure of state and central government. It is because as interest rates rise relative to current revenues of the government, a process of adjustment starts in government expenditure, which results into a reduction in public investment, particularly government investment relative to GDP. The following regression equation was obtained from this analysis.

\[
GCE_{84}(t) = 119.595 + 0.720 \text{ INT PAY}_{85}(t) + 0.286 \text{ RR}_{86}(t)
\]

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80 Private sector savings  
81 Private disposable income  
82 Public sector savings  
83 Real interest rate  
84 Government capital expenditure  
85 Interest payment  
86 Revenue receipt
It can be said that interest payments and revenue receipts positively affect the government capital expenditure. If interest payments rise faster than revenue receipts, government capital expenditure falls.

7.3 Findings and conclusions from MSMEs and SEZs and fiscal incentives in India

Fourth objective namely, “to know the level of awareness and availing of different incentives by MSMEs” was studied and analyzed by surveying cum interviewing 216 MSMEs firms of Gujarat. The outcome of this objective is surprising as only 81 MSMEs are aware and availing only one incentive namely interest subsidy (7 percent for micro and 5 percent for MSMEs) (1 percent extra for young/women entrepreneur); while only 49 MSMEs are aware and availing cash subsidy. For other incentives like venture capital assistance, schemes for technology, quality certification, assistance for participation in international trade; MSMEs are aware but are not availing the benefits. For certain incentives like rehabilitation to sick units, assistance for vendor development, incentives for packaging designing purpose, and schemes for environment management etc., MSMEs are not aware at all.

From this outcome it can be realized that government must look into the matter to improve awareness of incentives. Also government can reduce the procedural complexities to avail such incentives, can make the process speedier etc. This was also reflected in an open ended question cum interview session with them. Factor analysis was performed on this question and total four variables were extracted out of eleven. From the rotated component matrix factors having more than 0.5 values were extracted and all the incentives were grouped into four categories and four labels were named such as 1. Reimbursement based assistance, 2. Incentives to grow and excel, 3. Product and skill enhancement and 4. Quality enhancement and synergy.

Fifth objective, namely, “to compare and analyze the effectiveness of various incentives for financial and strategic decision of the MSMEs, investors were asked to rate the direct, indirect and other incentives on five point likert scale of very important to not important at all.

Outcome from MSMEs

Investors perceived that direct incentives and other benefits are most important for them for their financial and strategic decisions. Results clearly depicted that investors value direct incentives more worthy and among direct incentives they assign more value to interest rate subsidy, cash subsidy and backward area subsidy. For indirect incentives results are mixed. However indirect incentives named electricity duty exemption, 50 percent grant of original cost for technology enhancement and for quality up gradation schemes are preferred among other indirect incentives. Thus results indicate that as indirect incentives are more of reimbursement nature, they are gravitating towards important and neutral category.

To study fifth objective for MSMEs; factor analysis was conducted and a total of 7 factors out of 38 factors were extracted. A 0.791 KMO for the factor was obtained. Seven factors extracted
were named as per the loading of the factors coming into each group and appropriate label was given and reliability analysis was conducted. The factors were identified as per factor loadings and were named as 1. Quality and cost 2. Value addition 3. Infrastructure 4. Location advantage 5. Green practices 5. Finance is the blood of the business and 6. Location and supportive infrastructure.

**Outcome from SEZs survey**

To study the above mentioned fifth objective, factor analysis was conducted on set of various direct, indirect and other benefits and respondent were asked to rate them on 5-point likert scale from most impactful to no impact at all. For direct incentives most of the results are concentrating towards most impactful and impactful. SEZs units’ holders considered 100 percent income tax exemption, central sales tax, custom duty exemption, and excise duty exemption as most impactful. Results were most concentrated towards impactful and can’t say category for indirect incentives as most of the incentives are difficult to avail by small and medium players. For other benefits given to SEZs units, SEZs units have considered other benefits as impactful but not as most impactful, the reason is that unlike MSMEs, SEZs units get the ready world class infrastructure for their business.

Six factors out of 44 factors were extracted and KMO value for the test obtained was 0.757. Six factors extracted were named as per the loading of the factoring coming into each group and appropriate label was given and reliability analysis was conducted. The factors were named as 1. Tax incentives as well as infrastructure plays a dominant role, 2. Tax incentives along with location, 3. Promotion for exports, 4. Direct tax incentives-most valued, 5. Geographical linkage and 6. Location matters. These factors played important role in decision making by units located in SEZs.

Sixth objective namely, “to find out the impact of various direct and indirect fiscal incentives on financial and strategic decision of MSMEs and SEZs” was conducted by performing cluster analysis.

**Outcome from MSMEs (direct incentives)**

**Direct Incentives**

Two clusters were identified with the help of agglomeration schedule. Firms belonging to cluster one opined that interest rate subsidy and cash subsidy significantly impact to reduce borrowing requirement of the firm. Also interest rate subsidy reduces the cost of capital of the firm. For rest of the incentives firms give their views that they moderately affect the investment decision of the firm, borrowing requirement of the firm and as a source of fund. Cluster two people expressed their idea that investment subsidy given for the establishment of new units is the most impactful incentive for the investment decision of the firm. All other remaining incentives do play meaningful role to reduce borrowing requirement, as a source of fund and to improve margin and liquidity of the firm.
The ANOVA test performed for direct incentives indicates that all the variables are significant at 99 percent confidence level.

From cluster analysis it can be concluded that firms value those incentives which reduces their borrowing requirement and cost of capital. Accordingly, investment subsidy, rehabilitation subsidy and venture capital assistance do impact marginally for financial decision of the firm; this is because of the relatively more procedural complexities, time to get the refund and other issues involved in it. Government can consider this to design and offer such incentives which are directly impacting to reduce their financing costs as industries value such incentives more than others for their financial aspects.

**Indirect Incentives (Part A)**

Indirect incentives (part A) were analyzed by performing cluster analysis. Agglomeration schedule provided three cluster solutions.

Firms belonging to cluster 1 opined that incentives given for quality certification and packaging designing purpose have considerable impact to improve competitiveness of the firm. Firms are not sure about the impact of other incentives namely skill enhancement, technology enhancement and energy/water audit for better competitiveness and thus for other strategic decisions of the firm.

Investors of cluster 2 said that incentives given for technology enhancement are most impactful for improved competitiveness of firm. Incentives like quality certification, skill enhancement and technology enhancement is important for better financial performance but it is difficult to estimate the impact of energy/water audit and packaging incentive on financial performance of the firm.

Firms of the cluster 3 were of the view that all the indirect incentives have impact on increasing competitiveness of a firm, for better financial performance, to increase sales, for capacity and technological enhancement and for improved quality.

The ANOVA test results indicate that all the variables are significant at 99 percent confidence level.

**Indirect Incentives (Part B)**

Four clusters were identified by agglomeration schedule for indirect incentives (Part B). Firms belonging to cluster 1 believe that support given for the vendor development leads to improve competitiveness, for financial performance, to increase sales, and to enhance technological strength. However firms of this cluster are skeptical about the impact of other incentives on their financial and strategic aspects.

Result from cluster 2 derived is that all indirect incentives impacts to improve competitiveness, to enhance financial performance, to increase their capacity, to enhance their technological
strength and quality improvement. Firms of cluster 3 are not sure about the impact of all incentives on financial performance of the firm. Also they are not sure whether all these incentives affect or not, to increase sales, enhance capacity of the firm, improvement of quality and technological enhancement of the firm.

Firms of cluster 4 viewed that incentive of quality up gradation scheme has the most significant impact to improve competitiveness of the firm. Incentives like support for vendor development, electricity duty exemption for five years for cluster association, quality up gradation scheme, energy review subsidy and cash subsidy for assessment of water consumption has positive impact on improving financial performance of the firm. Quality up gradation schemes definitely impact, to improve quality of the products of the firm while support for vendor development, electricity duty exemption for five years for cluster association, energy review subsidy, cash subsidy for assessment of water consumption have least impact to improve quality of the product of firms.

The ANOVA test indicates that all the variables are significant at 99 percent confidence level except variable support for the vendor development whose value is 0.076.