

COMPARATIVE MACROECONOMIC RECESSIONS IN THE 1960S & 1990S AND CONTEMPORARY MACRO-MANAGEMENT AND SHORT-TERM & LONG-RUN MACROECONOMIC POLICIES: AN APPRAISAL

This chapter is organized as follows. Section 9.1 highlights the backdrop of twin-instability episodes of the 1960s and 1990s. Section 9.2 has made an attempt to present a comparative perspective by focusing their underlying sources, origin, facts, determinants, and their timing, and magnitude, policy responses to them, policy aftermath, policy sustainability, and the then prevalent constraints. Section 9.3 would compare the twin episodes econometrically by assessing the impact of devaluation, changing interest rate regime, exchange rate influences on India’s exports, imports, foreign capital inflows, remittances, overall trade balances, and above all economic growth. Section 9.4 would make an overall assessment of India’s macroeconomic policies from the view point of long-term growth and stability. The rest would conclude the thesis.

9.1. BACKDROP OF TWIN-INSTABILITY EPISODES OF THE 1960S AND 1990S

The following Table 9.1 stands to compare the two non-overlapping decades 60s and 90s and would report in what respects they are distinct from others.

TABLE 9.1: *Periodic Regression Results of Gross Domestic Capital Formation Rates on Gross Domestic Savings Rates & Crises Dummies*

Dependent Variable (Gross Domestic Capital Formation as % age of GDP at market prices)	1950-59	1960-69	1970-79	1980-89	1990-03
Explanatory Variables [co-efficient/ T_Ratio (Prob)]					
Gross Domestic Savings	.99 (4.48)	1.03 (8)	1.28 (9.72)	1.14 (60.48)	1.03 (93.85)
Government Savings	.75 (.60)	.52 (2.99)	-1.30 (-2.14)	-.28 (-2.46)	.32 (2.15)
Crisis Dummy		.006 (.97)	.004 (.55)		: .005 (.74)
R Squ.	.73	.59	.88	.93	.70
R Bar Squ.	.70	.48	.85	.95	.64
DW Statistic	.73	1.32	1.46	2.49	2.09

Notes (i) Method adopted OLS; for 1950-59 and 1980-89 no dummy variable introduced while for 1960-69, for 1970-79 and 1990-2003 three separate crises dummies were introduced to capture the drought impact and the impact of oil price hikes while regressions performed (ii)The values in brackets are T - Ratios

Sources: Author’s calculation from NAS, CSO, various issues

The above Table 9.1 shows that the contribution of government savings to capital formation as regressors has fallen across decades at least till 1990. This may be another way of saying that government savings though showing dismal decaying since mid-80s but might have started that falling trend since before. The estimated coefficients of government savings rate have statistically been significant, while the crises dummies attribution kept sustaining shocks impact would have been trivial, as coefficients not found statistically significant. However, it should not claim that oil crises do not impact adversely the balance of payments drifting long-run consequences. Now the question seems to have cropped that why have 1960s and 1990s been special in terms of worsening features. It is well known that the macroeconomic environment as well as macroeconomic management through which these decades went through was not qualitatively similar. This seems to be the tenet to differentiate these two crises episodes in the 1960s and 1990s in the Indian economy.

The regression results presented in the above Table 9.1 have been captured in the following six figures from 9.1(A) to 9.2(c) only to visualize as to how both the decades have been distinct in terms of macroeconomic performance.

The following figures from 9.1 (A) to 9.1 (c) in an array show that why the fitted investment rate function in the mid-60s having wide discrepancies between fitted and actual values; why its autocorrelation function of residuals changes its curvature from convex to origin to convex from below having a perverse drift after a certain lag difference and why plotted residuals has been skewed negatively in the mid-60s. What laid this mid-60s foundation need an economic explanation?

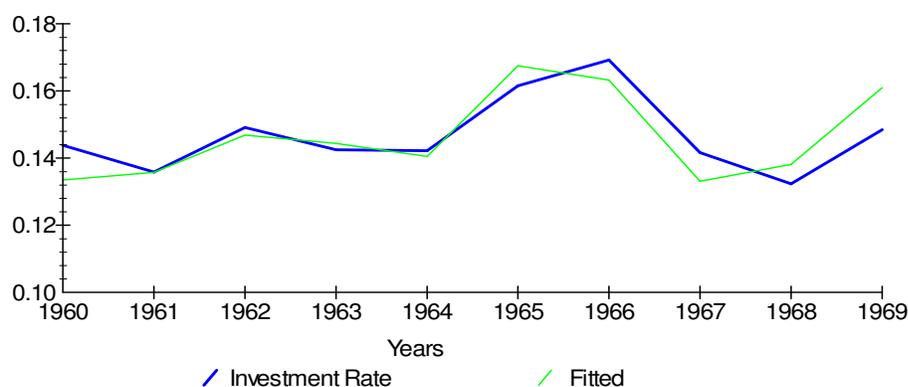


Figure 9.1(A) Plot of Actual and Fitted Values of Investment Rate function, Sample 1960-69

Source: Calculated sourcing NAS, CSO [EPWRF, 2004]

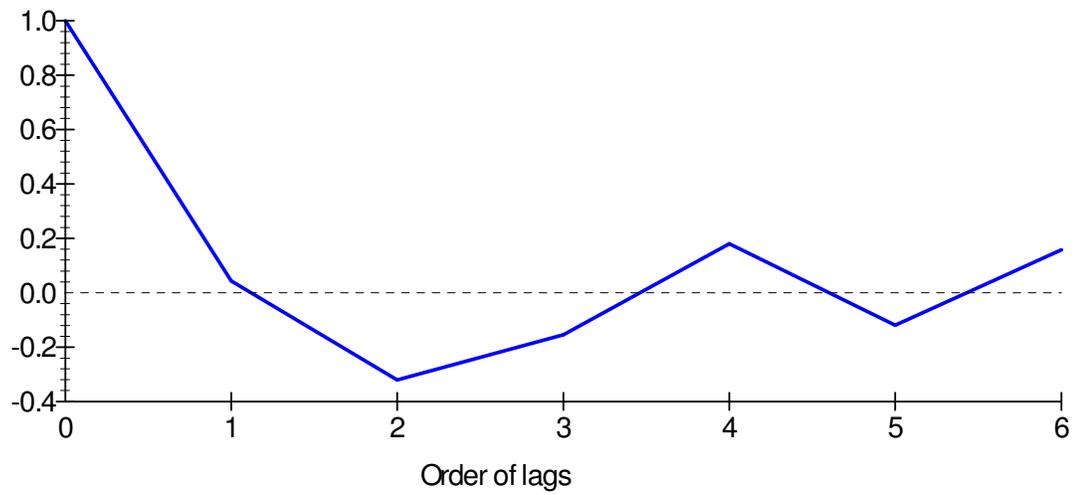


Figure 9.1(B) Autocorrelation Function of Residuals, Sample 1960-69

Source: Calculated sourcing NAS, CSO [EPWRF, 2004]

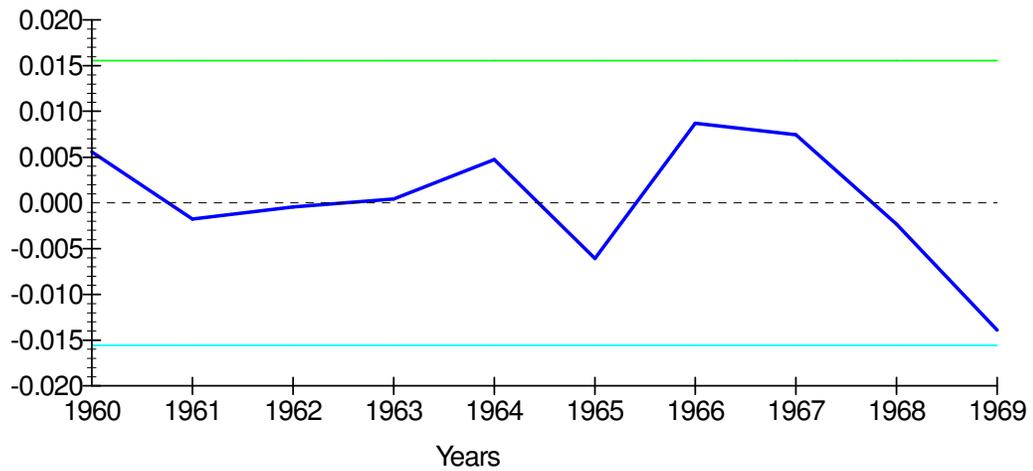
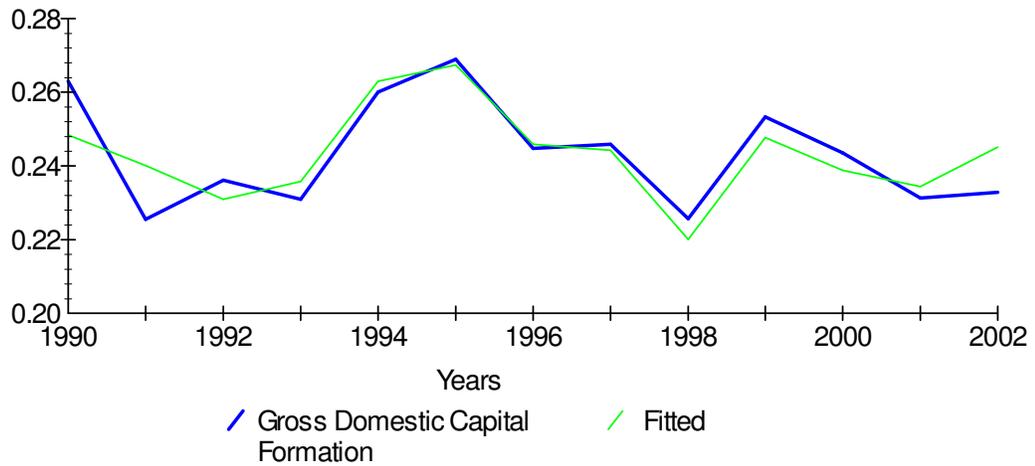


Figure 9.1 (C): Plot of Residuals, Sample 1960-69



The similar telling aspects happen for 90s, where there are wide discrepancies between fitted and actual values, autocorrelation function drifted negatively in 1991. This clear visual inspection can be observed right through the figures from 9.2 (A) to 9.2 (c).

Figure 9.2 (A) Plot of Actual and Fitted Values of investment rate function, Sample 1990-03

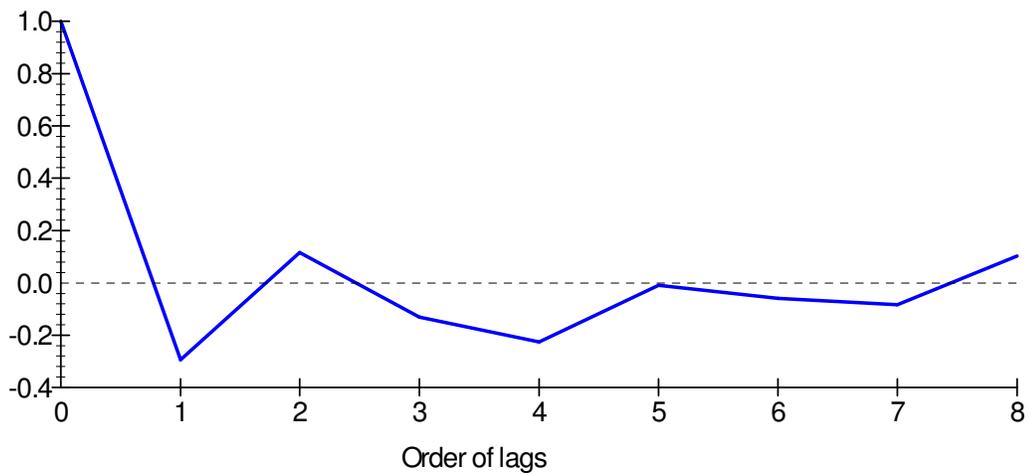


Figure 9.2(B) Autocorrelation Function of Residuals, Sample 1990-03

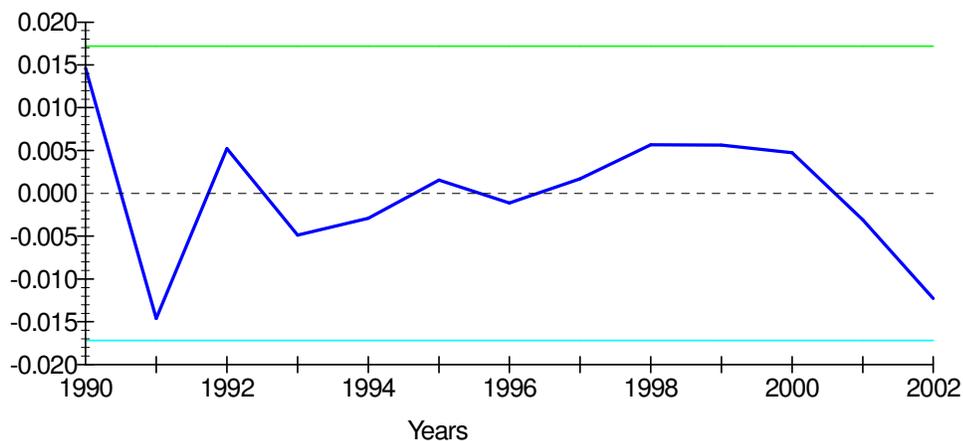


Figure 9.2 (C): Plot of Residuals, Sample 1990-03

Though there is a great deal of resemblances of investment rate functions in the mid-60s and early 90s in terms of pictorial look, however, there are a reasonable extent of differences in terms of fluctuations, magnitude, persistence, pronounced and perverse of the investment rate function in the 1960s and 1990s in the Indian economy, which purports to explore their underlying causes, origin, facts and determinants with factual information, which has since the first writing of the instability character in this thesis been focus.

9.2 THE MID-60S CRISIS

The effects of the macroeconomic instability in the mid-60s were basically exogenous factors led – two severe droughts in succession in 1965-66 and 1966-67 and wars with China in 1962 and with Pakistan in 1965, probably worsened India’s economic stability and in the absence of buffer stock, problem of public procurement, non-renewal of US food aid (PL 480), growth of plan and non-plan defense expenditure. All these exogenous events led public consumption expenditure or non-plan budgetary expenditure (like defense) and non-budgetary expenditure (like subsidies) on the current account to increase replacing public investment expenditure on capital account to grow. In response to the crisis, government had policies with several components such as devaluation, liberalization aid package, the management of food supplies, and conventional demand management. The devaluation package had of course been adopted as a long-term measure. The limitations on supply management policies (constraint of foreign

exchange) to insulate food prices and consumption increased the pressure for demand management policies such as fiscal response to this crisis.

During this crisis, expenditures were running from the estimates and most indicators of the public sector's demand pressure were at a peak. Real government consumption expenditure rose more proportionately than the rise in public sector investment expenditure. Real agricultural GDP fell and monetary (nominal) GDP rose. Total government expenditure rose more proportionately than that of revenue receipts and resulted a fall in government's fiscal deficit as a proportion of GDP and even in absolute terms. Public investment as a proportion of GDP peaked and the gap between public investment and savings also peaked. Net RBI credit to the government also rose. There was a fall in current revenue surplus though taxes were increased modestly. However, there had been a quite large cut in capital expenditure virtually to cure macroeconomic instability and catastrophic counterbalance and there was a reduction in the real government expenditure, especially gross domestic capital formation (investment) as was seen in the following year the plan holidays for 1966-69 to happen. The public sector investment fell but the gap between public sector savings and investment fell only slightly as a proportion of real GDP as real government consumption was stationary and thereby the real GDP was virtually stagnant, inflation continued and monetary GDP rose. The consolidated government's fiscal deficit rose as the increase in revenue lagged behind expenditure and net foreign aid receipts increased severely and so RBI credit to the government rose marginally.

India experienced severe recession in the mid-60s (1964-66). As demand management policy, fiscal policy was very restrictive (tightened) as cut in public expenditure on capital formation was the policy posture and monetary stance was too non-accommodative at least during the crisis and may be was expansionary a bit after the crisis as inflation was hovering. The reduction in government investment expenditure might have caused slow growth of output. Government's the then expenditure downsizing investment policy may be one of the reasons for being industrial stagnation in capital goods industries in the late 1960s.

In so far as the external dimension is concerned, droughts in 1965 and 1966 might have impacted exports of primary produce badly. However, even before the drought year 1965, India's BoP position was weak and worsened current account deficit, might be that was due to agricultural stagnation and slow export growth. And the other contributory factors may be the

neglect of agriculture, pervasive controls of imports and public industrial led import substituting inward looking development strategy. However, the mid-60s crisis motivated India to adopt liberalization-cum explicit devaluation package in 1966 to boost exports might be as a long-run measure. That was combined with anti-inflationary restrictive fiscal and monetary policies to be effective elements of aggregate demand management policies. The success of devaluation might have been impacted badly with its start due to drought impacts on exports and inflationary situation. The behavior of the real exchange rate might be critical for achieving effective adjustment due to exogenous shocks. It is important to note that current account adjustment requires not only exchange rate depreciation but also combined with prudent fiscal and monetary policies. However, the success of devaluation as a policy measure has been examined in the later section econometrically. This crisis might have led the foreign borrowing situation worsened, which being indicated growing fiscal deficit. The crisis was sensible to maintain public investment kept going during the crisis.

It is important to note that in the absence of adequate food reserves or buffer stocks and foreign exchange reserves to be effective anticipatory policy India's crisis were severe in the mid-60s. Cuts in public investment as contractionary demand management policy may have a useful role to play if their timing and content is just. The policy response to inflationary bubbles that result from exogenous shocks should be non-accommodating so that inflation does not get built into the prevailing system.

MACROECONOMIC CRISES IN 1991

Macroeconomic instability episodes before 1991 were attributed mainly by exogenous or extraneous shocks like weather, wars and oil crises. In 1991, the Indian economy was delved in the throes of a macroeconomic crisis, which has basically been policy ridden or due to policy appropriateness or policy mistakes or policy unsustainability or policy induced. The economic reforms initiated from the mid-eighties onwards attributed the Indian macroeconomic expansion in which fiscal policies were expansionary and monetary policy was also expansive. The drought in 1987 was not so severe and the agricultural sector recovered soon after. More liberalization occurred in 1980, which was mainly concerned with deregulation of industrial licensing and softening of the restrictions on monopolies and both these measures seemed to

have big business support as they were not accompanied by any serious trade liberalization. However, the pace of industrial deregulation was much faster in the late 1980s and the import liberalization related mainly to inputs and components but very little was done to open up Indian industry to foreign competition. In summary, liberalization consisted little more than the piecemeal deregulation of industrial licensing and the introduction of a measure of exchange rate flexibility. However, interventionist ideology prevented any significant action in the more difficult areas such as trade liberalization, financial liberalization, and reforms of the labour market and public sector enterprises.

More importantly, there was expansionary fiscal policy, the manufacturing sector continued to grow, and exports also increased. At the same time, it is clear that the underpinning macroeconomic fundamentals were not adequate enough to keep sustaining the expansion. Fiscal and current account deficits were large and the burden of domestic and foreign debt was heavy and unsustainable. The consolidated government's fiscal deficit rose persistently to reach about 8 per cent of GDP at the end of the 1980s. At that level, it clearly endangered to explode into high inflation or a balance of payments crisis. As the macroeconomic fundamentals were weak, the Iraqi attack of Kuwait in 1990 and the Gulf War were enough to set on a full-blown crisis. However, the overall development of macroeconomic policy that took place till 1991 has two important features: there was an erosion of fiscal conservatism; and there was a gradual and piecemeal liberalization of controls, but without having any fundamental reforms of the system.

By the early 1980s, many developing countries went bankrupt, and international bankers were short of borrowers; India with its sustainable balance of payments looked very attractive. Bankers especially Japanese ones, poured money into Indian economy in the 1980s which was one of the precipitate roots of the payments crisis in 1991[Desai, 2003]. The crisis made India's credit rating sharply downgrading and a cut off of foreign loans. Despite that, unlike earlier crises, exogenous factors were relegated with minor importance in causing the crisis, as it was largely policy- induced because past macroeconomic policy mistakes over a long-period had left the Indian economy in a fundamentally unsound state and wrong footing. Inflation, fiscal and current account deficits, and domestic and foreign borrowing all manifested high. There had been a steep depletion in foreign exchange reserves even inadequate to a level of two-week imports. In these circumstances, structural reforms were initiated by the

government in 1991. The immediate concerns of the reforms were to contain inflation, reduce the fiscal deficit, improve the BOP position, and above all, to stabilize the economy. Measures that were undertaken included fiscal contraction, a credit squeeze, and a devaluation of the rupee. The instantaneous impact on the economy was contractionary. In the 90s, the manifold policy measures included industrial deregulation, financial liberalization, import deregulation, export incentives, exchange rate depreciation, and tax reforms.

This sub-section has only concentrated on macroeconomic policies with short-term objectives. Later part would assess India's overall macroeconomic policies on long-term growth.

9.3 COMPARATIVE DEVALUATION OF 1966-67 AND 1991-92

This section has made an attempt to compare the effects of devaluation as structural adjustment programme of 1966-67 and 1991-92 on India's exports, imports, trade balance, and above all economic growth. The natural logarithmic transformations of India's exports as well as imports series are found to be non-stationary while at level values stationary. To assess the long-run and short run effects of devaluation, intercept dummy, time-trend and slope dummy are introduced in which three years since 1966 and another three years since 1991 weights are given 1 and zero for other years while regressions are carried out based on Autoregressive Distributed Lag Estimates ARDL (1) selected based on Schwarz Bayesian Criterion the fitted long-run estimated regression equation of balance of trade seemingly shows that the trend remains almost same in both the episodes of devaluation in the mid 1960s and 1990s as the parallelism of the fitted and actual estimation indicates that, which is shown in the below of the plotted representation of trade balance estimation in Fig 9.3 (A). Though their parallelism may indicate devaluations have impacts qualitatively similar for both the decades. But the pictorial indication of Fig. 9.3 (A) reveals that the vertical difference of fitted and actual trade balance line rises more in the 90s. Not only that, the inner line difference also rises in the 90s. Now the question is does it indicate that trade balance in the 1990s has been affected much more badly? The following figures 9.3 (A) to 9.3 (E) addresses the question. May be devaluation brought forth imports more and exports less. Thus it needs to see whether trade balance estimation becomes unstable due to instability of imports. This study has performed CUSUM test to test

whether trade balance parameter is stable or not. But it supports parameter instability. And it shows that tendency for being instability after 1991. Now the question is is it due to growing fiscal deficit affected current account deficit badly or in mid-60s that could not take place due to restrictive fiscal policy? Now it needs to see whether devaluation came to help export promote or import more. The answer for 1991-92 devaluation is obvious no. The following section would enquire into that.

One more interesting context is that when the study conducted regression under same method of balance of trade introducing intercept, exchange rate and real GDP growth rate as regressors the fitted regression under ARDL(1) also indicating the impact of devaluation alike the former. Visual inspection of the below mirrors the replica of the other. Thus it can be said though partly, that both the devaluations impact growth rate of real GDP very scanty.

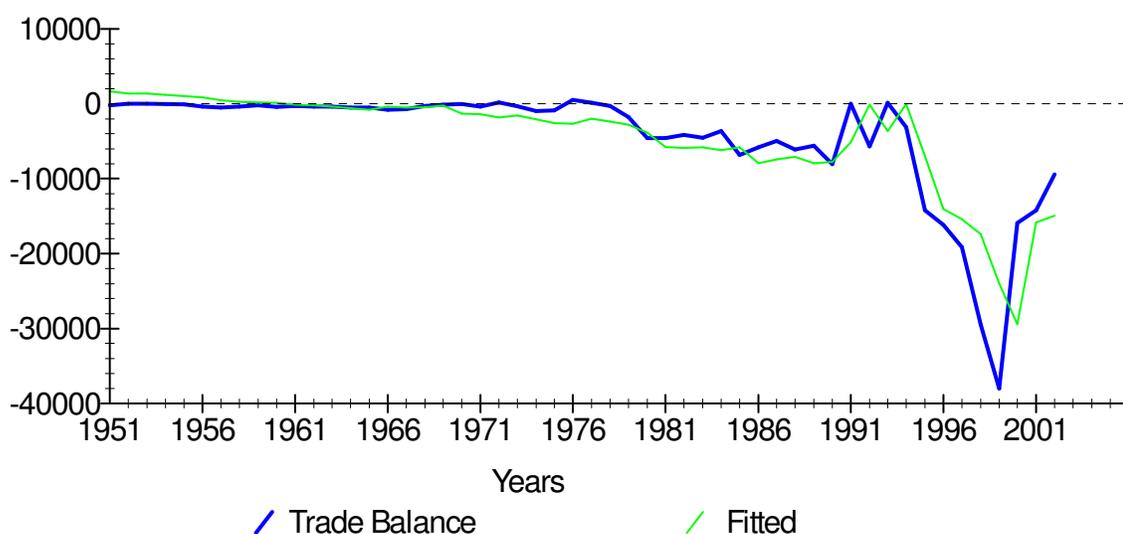


Figure: 9.3(A) Plot of Actual and Fitted Trade Balance Estimation under ARDL (1)

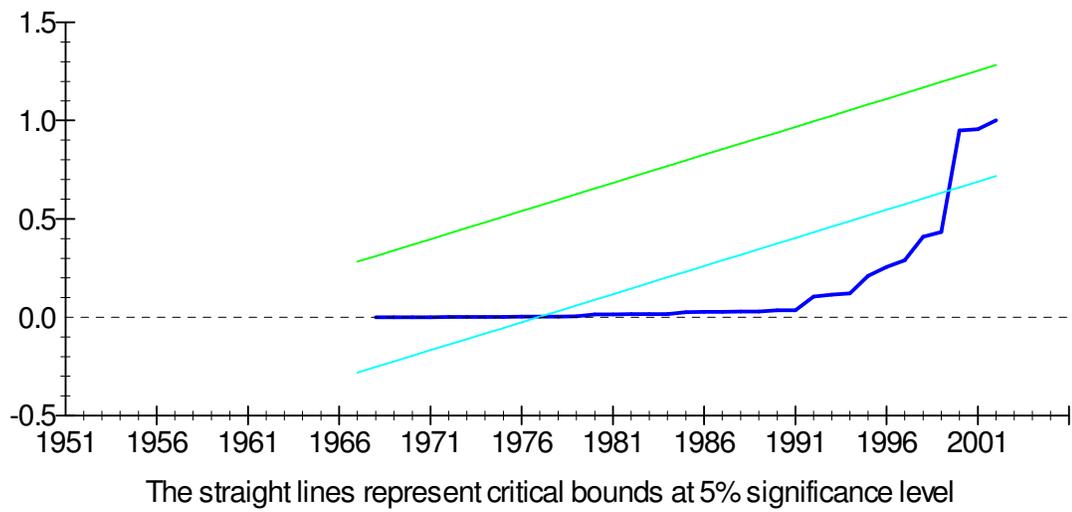


Figure: 9.3(B) Plot of CUSUM recursive residuals of Trade Balance under ARDL (1)

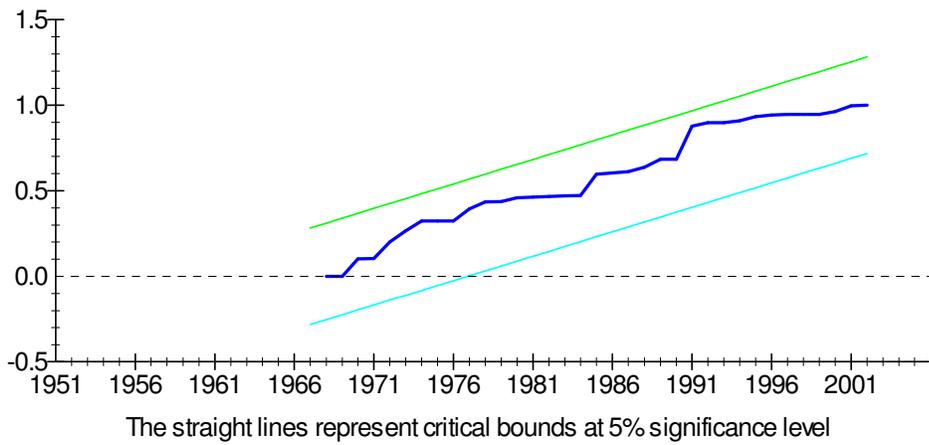


Figure: 9.3(C) Plot of CUSUM of recursive residuals of India's exports

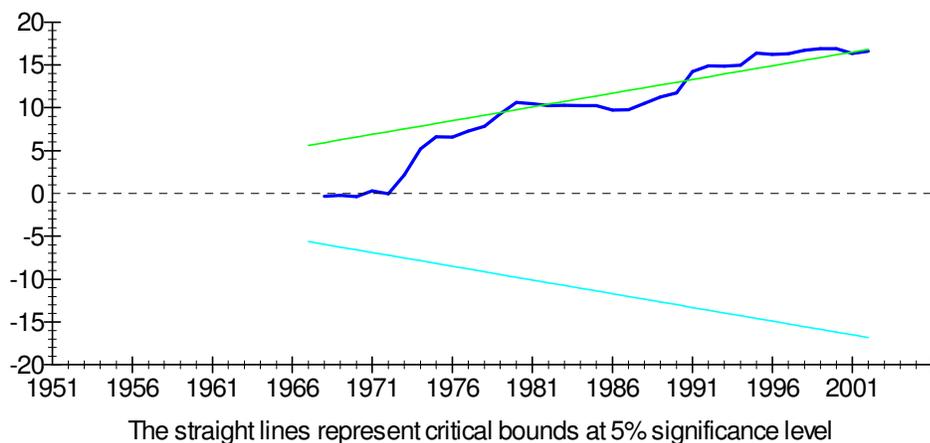


Figure: 9.3(D): Plot of CUSUM of recursive residuals of Indian Imports

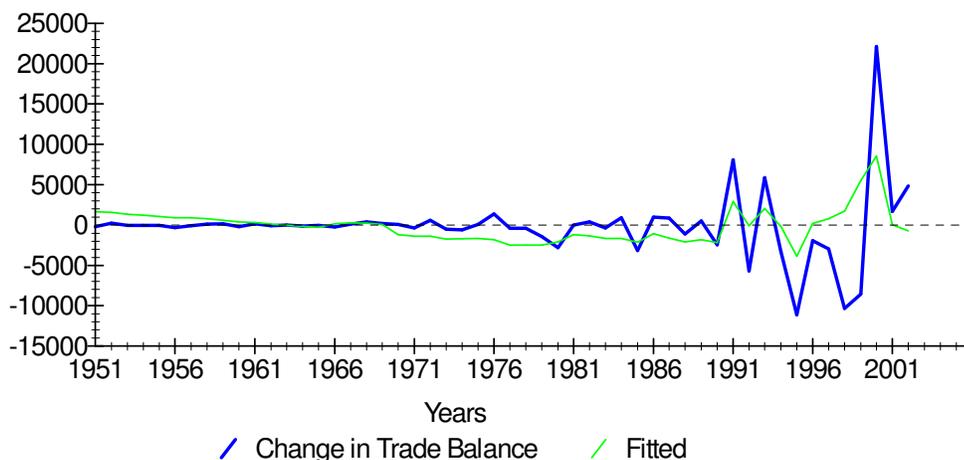


Figure: 9.3(E): Plot of Actual and Fitted values with short-run impact

Thus the question is how the relationship between gross fiscal deficit and current account deficit was during both the sub-periods and whether depreciation impacted exports to grow or instead imports to grow. But the question is why? Does it due to expansionary fiscal and monetary policy in the 1990s devaluation could not impact growth rate via balancing sectoral savings and investment. The above figure 9.3 (E) is showing the short-run impact of devaluation on trade balance having more fluctuations in the 1990s.

The plotted results of co-integration regression and ECM measures indicate that exports, imports and trade balance following a long-term trend and have not been impacted

positively by the two doses of devaluation in the 1960s and 1990s at least to maintain economic stability by promoting exports and thereby growth rate of output. Thus devaluation does not seem to have acted correctively to improve trade balance and thereby real GDP growth. Thus devaluations seem to have worsened the debt burden. In this way balance of payments remain unsustainable as neither accompanied by improved net export earnings or by accelerating external finance. There has been a clear indication of creeping inflation after devaluation measures adopted years. Thus the question is to what extent devaluation in 1991-92 has been successful in response to external debt and foreign exchange crisis compared to that of devaluation in 1966 of the planned development regime. Theoretically devaluation and debt linkage is that increase in exports due to devaluation would generate essentially the repayment capacity to outweigh the debt overheating and bring down the need for borrowing in the long-term.

The movements of trade balance from actual and fitted values needs to examine a more systematic analysis of factors which caused deficit in the first place to understand the relationship between three gaps. It is believed that there is a relationship current account deficit and real exchange rate. The results of fitted regression in error correction model show that real exchange rate and current account deficit are inversely related. Thus, the pegging of the nominal exchange rate from 1950-1966 led to a steady appreciation in the real exchange rate from 1950-66 resulting current account deficit and as its consequence current account deficit portrayed an increasing trend. On the other hand in 1991, the result of devaluation is showing some dismal story. Thus it can be concluded that the devaluation though not worked but others macroeconomic policies were to some extent conducive compared to that of expansionary policies in 1990s. However, situation seems to have started better in the late 1990s might be due to fiscal consolidation being tagged.

On the other hand, devaluation cannot claim as of being effective to promote foreign capital inflow or remittances to come in more. What happened in the case of foreign direct investment, most of them are in the foreign institutional investment or foreign portfolio investment.

9.4 THE INDIAN OVERALL MACROECONOMIC POLICY ON LONG-RUN GROWTH

The objectives of macro policy are mainly threefold namely, considerations of equity, stabilize the growth of output, and maintain reasonable price stability. Stability and long-run growth are positively related provided price stability is not achieved by cut in investment to be a demand contraction policy. On this count, India's fiscal policy can be criticized. Without price stability, fiscal policy may result in destabilization of industrial output. In particular, government gross domestic capital formation in the 1960s and 1970s was less stable than what should have been. Price stabilization would have been achieved better had there been built adequate foreign exchange reserves and food stocks to combat the harvest failure, which left investment cutting to counter inflation. In the 1980s, India's fiscal policy became lax as was expansive (expansionary) with larger increase in current expenditure though contributed to achieve an increased growth rate of output but could not outlast with sustenance for sustainable period as hinged on an excessive rate of growth of public debt, culminated in crisis and recession in the early 1990s.

The fiscal problem has often changed its course of history. In India, central fiscal policy was pronounced within the framework of a high level of public investment, which was essentially supposed to be conducive for rapid economic development. The country's excess reliance on high public investment to promote and sustain a satisfactory long-run growth rate supported by presumed public savings that to be higher has not been realized.

The highly interventionist approach of Indian macroeconomic management that prevailed till mid-80s in which controls and public sector led capital intensive import substituting highly protective and subsidized industrial strategies were the elements, favoured credits at low interest rates (financial repression approach of bank nationalization) did not seem to have been conducive securing internal and external balances of aggregate demand and supply to achieve long-run growth with stability as long-run fiscal policy barely limits public sector deficits without an inflationary growth of the money supply or fuelling alarming domestic or the external debt. It needs to examine in the short-run as to whether larger or smaller deficits (or surpluses) have been used correctly to restrict or stimulate demand. Imbalance of investment and savings of the private sector results in excess or deficient demand unless timely and successfully use of fiscal policy counters. However, presently considering the

existing level of the public deficit and the debt, adopting fiscal policy to counter inflation may not be wise. In the past, there has been used fiscal policy to mitigate inflation arising from drought. However, inflation arising from the supply side was better met by depleting reserves, of either foreign exchange or food or both.

In the short-run, monetary policy is partly independent of fiscal policy. In the long-run, real interest rates are determined by savings and investment. Monetary policies such as the use of discount rates to influence demand in the short-run, changing the growth of base money supply, by varying reserve requirements controlling credit and fiscal policy can be used to counter any excess or deficiency of demand that is generated in the private sector.

The Indian overwhelmed public investment led long-run growth strategy for rapid economic development remained far to being materialized due to public savings constraint insofar as the long-run growth aspects of India's central fiscal policy are concerned. In India, central fiscal policy is believed to have been conducted within the framework of a high level of government investment. This was supposed reasonably to have engineered the growth of rapid economic development.

The reasons for disappointing growth of public savings may lie in the premise of both on the expenditure and revenue sides of the balance. The reasons for the rapid growth of current public expenditure in the mid-80s were due to fiscal laxity for electoral gain and to satisfy the wants of different pressure groups, an increase in magnitudes of subsidies, weaker tax base due to the constitutional fact of limitations of centre-state relations (no agricultural tax and land tax).

It seemed to surface in the realm of public expenditure – revenue balance with the evaporation of fiscal conservatism during the 1980s for myopic political interest of opportunistic ends along with sharp deterioration of fiscal statistics like contribution of direct taxes to GDP fallen that might have caused the growth of the black economy, and more reliance on the indirect taxes got to be happened. On the other hand, net operating surplus and thereby non-tax revenue appeared flat consequent to poor performances of public sector enterprises. At the same time, constitution laid central - state financial relation may limit the structure of taxes as there is exemption of taxes on agricultural income (by the central government) and land tax once collected and now go-off as state's own revenue. India's more reliance on indirect taxation

may imply having had increase degree of protection as it has a strong incentive to concentrate on tariffs rather than on excise taxes suggesting a plausible tool to control expenditure which is more desirable for growth in the absence of difficult structural reforms.

Turning to the balance of external payments to maintain a viable balance of payments on current account, there is no doubt that imports and exports are reasonably responsive to variations in the exchange rate to be an effective instrument for macroeconomic instability provided fiscal and monetary policy are used to maintain an overall balance of supply and demand. However, the trade balance may take some time to respond and thereby the maintenance of adequate reserves and borrowing capacity is thereby important. However, in the event of the large exogenous shocks like oil crises, the fate of macro-management is uncertain.

CONCLUSION

This research has attempted to quantify economic relationships with historical factual information particularly to gauge macroeconomic instability episodes in the policy context. The major focus though is comparative recessionary episodes of the 1960s and 1990s, it has made an overall assessment of India's macro management, its problems, solutions considering its prevalent constraints. This research has been a dynamic study. Its main points of coverage were the changing policy dynamics in the context of India's changing macroeconomic growth experiences, in which besides economic factors other factors are also taken into account while quantified economic relationships.

Instability itself is vast. Its problem arises from two ends: macroeconomic management mistake and exogenous shocks. Decoupling one effect from other might not be always possible. Policies can be categorized either demand side or supply side; either short-run in nature or long-run in nature, but in terms of target, policies are usually categorized. For measuring instability episodes, what are important to understand the route of transformation channels and that lie at the seed of macro policy variables. And no macroeconomic policy is isolated from others thus the macroeconomic impacts of policy mix is important in the premise of growth rate, interest rate, exchange rate and inflation rate.

This research has perceived that the key linkage of macroeconomic instability is the investment and savings nexus and the overall and sectoral disjunction. Thus, the behavior of

savings and investment, their determinants in the process of economic growth is important. Savings-investment has long been the key linkage; and sectoral savings and investment and their disjunction may be one of the principal routes through which instability transmitted. Savings-investment seems to be the key variables which are believed to have direct or indirect impact of policies. This research seems to have immense utility to policy planners, forecasters, market participants and above all researchers.

FURTHER AGENDA

This research may suggest that there are a lot of issues that remain untouched to be in the field of instability analysis. In this field, how the changes in innovation or stock of capital, equipment investment are functioning in shaping macroeconomic growth process is important, besides infrastructural investment. Labour force, poverty analysis, estimation of production function and factor intensities are important to understand the productivity problem which may constitute an important element for instability analysis.

Since recent quarterly data started publishing, based on that data series India's instability analysis would have been analysed better. Instability analysis in the context of cross country can be very relevant as this study has basically been country-specific, in the context of Indian economy. The context of south East Asian currency contagion should be a wing of such kind of research. The impact of financial liberalization particularly after the global financial meltdown may be one of the pertinent subsidiary aspect of instability study. Moreover, the time-period for being studied in this field should include the recent periods,

However, this research wants to be a study in the field of applied macro-econometric research where policy analysis has been the focus to understand the Indian changing macroeconomic growth process and development by presenting a comparative perspective of recessionary episodes in the 1960s and the 1990s.