7

CONCLUSIONS

7.1 Background

In the aftermath of the unprecedented foreign exchange crisis in 1991, India adopted a stabilization package and a structural adjustment programme (SAP). While the stabilization package consisted of a reduction in the fiscal deficit of the Centre as a ratio of GDP to keep inflation under control and restore balance in the external account, the SAP aimed at strategic retreat of State from various spheres of economic activities to set the stage for infusion of market principles in the functioning of the economy and to usher in an era of liberalization.

The national income accounting identity in terms of the three gaps, the investment saving gap of the private and the public sector and the external account gap underlies the economic rationale of the stabilization package. A reduction in fiscal deficit is argued to reduce excess demand in the domestic economy which manifests itself in the external account imbalance, whereas SAP is expected to boost the private sector through various supply side policies, deregulation and opening up of the economy to foreign competition. The foundation of the entire reform package lies on a diagnosis of the Indian economy within the Fund-Bank macro construct and with the help of the reported database.
7.2 The black economy and the economic analysis

The Indian economy comprises two parts, the white and the black. The black economy emerges when tax is evaded on taxable income. The economic analysis is based on the recorded data, which mostly but not only refers to the white economy. The recorded data may also capture a part of black income generation, for example, when a fraction of government expenditure is siphoned out and accrue to the private sector as undeclared profit. The data does not even reflect the entire white economy as a part of the income generated in the informal sector may remain untraceable and may not get reflected in the data. But most part of the black economy, by its very nature, does not get captured in the database. The underlying theoretical construct of the reform, the stabilization package in particular, does not recognise the existence of the black economy and its implications for the economy. Hence, the black economy remains outside the purview of the conventional economic analysis.

This thesis argues why the incorporation of the black economy is essential for any meaningful analysis of the macro economy. The topic bears on a theme of utmost importance in the study of Indian economy in the context of the NEP because it is too large to be ignored as indicated by several studies. The black economy has never occupied the foreground of mainstream Indian economics barring a few attempts (Kabra 1982; Gupta 1992; Kumar 1993, 1999a and b). An example of studies ignoring the black economy is Patnaik (1995), where some Indian themes in macroeconomics have been presented along with a brief survey of the empirical studies on the Indian economy but there is almost no reference to the black economy.

7.3 The black economy needs to be integrated into the analysis

The very basis of any economic analysis, the model and the data, give a partial and incomplete picture of the economy. As several studies indicated that the size of the black economy in relation to the white economy in India has been growing and one of them gives the figure of nearly 40 percent of GDP in 1995-96 (Kumar 1999b). The black economy can not be assumed away merely by considering the recorded economy to be
son.e fixed proportion of the total economy as this is neither true nor are the major macro variables equally affected by the existence of black economy.

Apart from the problem of the coverage of the data, the black economy is intertwined with the white economy. It is not a 'parallel' economy as it is sometimes referred to. It influences the way the economy functions and eventually its dynamics. Therefore, not only are the data for the 'true' economy different from the reported ones, the 'true' circular flow of income and the sectoral balances are different from that usually used in the analysis of the Indian economy.

7.3.1 Reassessing the concept of 'twin deficit' in the presence of the black economy

In Chapter 2, the objective was to study the relevance of the concept of 'twin deficit', the hypothesised correspondence between the public sector deficit (or, fiscal deficit) and the external account deficit, which underlies the rational for the ongoing stabilisation programme in India. The various theoretical justifications advanced by the different macroeconomic schools to explain the concept was reviewed. We argued that the three major schools, the Keynesian, the Monetarist and the Cambridge Economic Policy Group establish the relationship between the two deficits under restrictive assumptions in tune with their respective constructs. We observed that for each of them, assumptions regarding the behaviour of the private sector in the face of a change in the fiscal deficit are crucial to ensure the correspondence between the two deficits.

The review of the literature was followed by an empirical analysis to examine the correspondence between the different measures of the public sector deficit, the fiscal deficit of the Central government, the primary deficit and the deficit of the entire public sector and two measures of external account gap, the trade deficit and the current account deficit. The empirical results were found to be inconclusive regarding the phenomena of 'twin deficit'. It was observed that though the different measures of public sector deficit were not related to the trade deficit, they were found to be related with current account deficit.

We argued that studying the two gaps is not meaningful in presence of the black economy for the following reasons. Though the investment-saving gap of the public sector (or the fiscal deficit) is the budgeted one and hence authentic, the other two gaps, the
investment-saving gap of the private sector and the external gap are not the ‘true’ ones. This is because, corresponding to black incomes there are black savings as well as black investments. Various studies have indicated the extent of mis-invoicing of trade transactions in India. Smuggling and capital flight create a substantial gap between the ‘true’ flows across the border and the reported current account deficit. Therefore, the ‘true’ gaps comprise both the white and the black components. So, the two gaps we deal with do not refer to the entire economy.

It was argued that the macroeconomic impact of the fiscal deficit on the external gap needs to be reviewed in presence of a substantial black economy. A part of the government investment-saving gap accrues to the private sector as black saving since a part of the government expenditure is siphoned out through cuts and commissions. This reduces the demand generating capacity of the public sector deficit. The impact of the black incomes of the private sector on the external gap would be through black consumption and black investment but the reported external gap is likely to capture only partially the effect of black consumption.

The existence of the black economy, therefore, complicates the interrelationships amongst the three gaps. This is why studying two gaps at a time, as found in the literature (Rakshit 1991; Anoruo 1998) is not worthwhile. In general, the degree of correspondence between the two deficits would depend on the degree of openness of the economy, the state of the economy and the composition of government expenditures.

Moreover, from a macro perspective, the neutrality of the investment-saving gap of the private sector, which is a key assumption for the concept of ‘twin deficit’, can not be maintained as investment would primarily affect income, and, therefore, saving of the private sector.

7.3.2 The monetary sector - a fresh look in the context of the black economy

In Chapter 3, we examined the monetary aspects of the Indian economy with the objective of showing how the various issues for the sake of completeness, like the income velocity of money circulation, the money multiplier, the role of credit, etc., need to be reexamined in the context of the black economy of substantial economy.
From the empirical analysis, we concluded that though the narrow measure of money supply was stable for the period under study, the broad measure of money supply (M3) was not. No long term correspondences between credit and the real sector proxied by GDP (real and nominal) and between reserve money and broad measure money supply were found.

The stability of the income velocity of money circulation is one major tenet of monetarism which also underlies the Fund Stabilisation package. While the estimates of money supply can be regarded as authentic, the numerator, the proxy for income, say GDP (nominal or real) at market price, is not. As argued earlier in Chapter 3, black incomes are mostly not reflected in the data base and so the income velocity of money circulation tends to be under estimated (Shukla 1997). The actual behaviour is not studied, and therefore, remains unknown for drawing conclusions on the stability of the income velocity of money circulation. Moreover, the equation of exchange in its original form contains the total volume of transactions rather than income. Money is not only used for transactions related to income but for the entire gamut of transactions, which includes among other elements, intermediate consumption, second hand assets, financial transactions as well as black transactions, related to both black income and black transfers. The financial transactions and black transactions are unlikely to show any regular pattern in their movements. So, the transactions velocity with which we should be concerned with, may not show the assumed properties. Even the 'true' behaviour of the income velocity of the money circulation may not be captured as the fluctuations, which are short term in nature, may remain masked by the use of annual data.

The use of currency used for most of the black transactions may contribute to the instability of the currency deposit ratio of the individuals as currency held by the individuals will also be used for black transactions which are irregular and speculative in nature. A part of the total deposits held with the banking system may be out of the black income. The loans extended by the banking system may also partially finance black investments. In short, we argued that to draw conclusions regarding stability of the money multiplier would be erroneous as the leakages and injections into the circular flow do not depend on the white economy alone.
The existence of the black economy may also distort the relationship between credit and the real economy. Both the estimates are unreliable as credit is also extended by the informal sector, which is not covered under the fractional reserve system, to finance both the white investments as well as the black investments. So, a part of investment is financed out of informal credit, which remains unreported and a part of formal credit may finance black investment, which is not a part of the reported income.

7.4 Need to integrate the black economy into a macro-economic framework

The empirical analysis of the real and the monetary sectors in India in Chapters 2 and 3 suggests that there is a need to take the black economy into account for understanding and analysing the various aspects of the Indian economy, its evolution over time and the factors leading to the crisis in 1991.

7.4.1 The literature on black economy tends to be micro-based

Though the size of the black economy has now become quite significant in many countries, it has not spawned commensurate development of the literature to study the black economy as a macro phenomena. The issue of tax evasion has been treated in the literature mostly in a micro theoretic framework. Economists' attention to capture its multifaceted economic manifestation has mostly remained limited in a micro framework. The economic significance of the black economy never featured prominently in the debates on Indian macroeconomy, particularly with reference to its fiscal aspects till Kumar (1993). Attempts to analyse the black economy, in general, have been sporadic (NIPFP 1985; Gupta 1992). The various aspects of the black economy need to be woven together rather than being viewed as the loose, unconnected ends of the black economy.

A study of a representative individual in isolation as done in the microeconomic literature, is methodologically flawed. When the representative individual evades a tax, it affects the income of the class and more importantly that of the government. This, in turn, affects the pattern of spending and eventual generation of income, including that of the tax evader itself. A dynamics is then created both in the realm of the individual and in the
finances of the state. In the emerging scenario, it is therefore, not justified to treat an individual, the tax evader, in isolation. Income is generated in production and realised in circulation when expenditures are incurred. It does not make sense to freeze only one loop of the economy to study it, whereas, there is a continuous circular flow of income in the other income loop. As black incomes emerge as a separate category of income, they find their manifestations in the form of consumption and investment, both domestic and foreign. It, therefore, becomes imperative that the economy must be studied in an open economy macro framework with black economy as an integral part.

7.4.2 Inadequacy of the three-gap formulation

We argued in Chapter 4 that the three gap framework is inappropriate for macroeconomic analysis, and more so for incorporating the black economy. It was argued that the alternative to the three gap formulation is to use the national income identity as suggested by Kalecki (1971) which is capable of analysing the impact of policy changes and changes in income distribution as suggested by Kumar (1993). The model has the following advantages. Causality is clearly established with income determined by expenditures, which are identified as the private investment, capitalists’ consumption, the fiscal deficit and the current account deficit. The change in the distribution of income can be analysed in such a framework as it distinguishes between two different categories of incomes, wages and profit.

As argued in Chapter 4, the method of generation of black incomes suggests that black incomes should be defined as factor incomes, property incomes, (Kumar 1993) for the purpose of integrating it in a macro-model and to ensure compatibility with white incomes. Therefore, in the framework developed in Chapter 4, black incomes have been treated as black profit on which no tax is paid. This definition excludes, for example, transfer incomes, like bribes and capital gains in real estate. Such a definition of black incomes eliminates the problem of multiple counting, like, in the case of evasion of various tax, the same base being considered several times.

It was recognised that consumption and investment would take place out of black profits as in the case of white profits. As suggested by Kumar (1993), the model which incorporates the above mentioned features, is as follows:
\[(P_w - T) + P_b + In = I_w + I_b + C_C + (BudDef + NetBor) + (X - IM) \] 

(7.1)

As tax is evaded on profit, gross profit gets split into white and black profit. Gross profit on the left hand side includes interest payment from the government, which is a transfer. Though consumption expenditure includes both the black and the white components, investment is split into its white and black components. The trade balance on the right consists of both the white and the black components. The white component reflects the official balance of payments (BoP) whereas the black one reflects the illegal capital flows. In brief, the true economy consists of both black and white and it was pointed out that they interact with one another altering the flows of income circulating in the economy.

This thesis uses the work in Kumar (1993, 1999a and b) as the starting point and takes it forward by incorporating the functional forms of the macro variables.

7.5 Building up the model

In Chapter 5, we developed the specific functional forms of the individual elements on the right hand side of (7.1) for a closed economy. In order to develop the complete model, we bring together all the functional forms.

Corresponding to the black and the white profits, capitalist's consumption can be split into two components - black and white consumption \((C_b \text{ and } C_w \text{ respectively})\). We have argued in Chapter 5 that while white consumption depends on the white profit with a lag, the black consumption tends to react to black profit faster because of the underlying differences in the nature of black incomes and objective of black income generation. Therefore, white consumption was hypothesised to respond to past levels of profit and so at the beginning of the period it can be treated as given as in Kalecki (1971),

\[ C_{w,t} = e_w P_{w,t-\lambda} + A_w \] 

(7.2)

Where \(\lambda\) is the average reaction lag.

We assume that black consumption also reacts with a lag, albeit shorter than that of white. The following form can be hypothesised,
\[ C_{h,t} = c_b P_{h,t-\gamma} + A_b \]  

(7.3)

Where \( \gamma \) is the average reaction lag which is smaller than that of white consumption, \( \lambda \) and marginal propensity to consume out of black was assumed to be greater than for white \( (c_b > c_w) \). This is in contrast with our earlier formulation in Chapter 5, where \( \lambda \) was assumed to be zero for the sake of simplicity.

Similarly there are two different categories of investment, white and black. The white investment as argued in the Chapter 5, is dependent on past levels of profits as in Kalecki. Black investment reacts in a similar fashion as far as the reaction lag is concerned. Accordingly, we can hypothesise the investment function corresponding to white and black as follows,

\[ I_{w,t} = I_w (P_{w,t-\phi}) \]  

(7.4)

\[ I_{b,t} = I_b (P_{b,t-\varphi}) \]  

(7.5)

Where \( \phi \) and \( \varphi \) are the reaction lags of white and black investments to white and black profit respectively. Because of the heterogeneous nature of the two types of investments, no firm conclusion could be reached regarding the relationship between the reaction lags \( \phi \) and \( \varphi \).

The government expenditure \( G \) in period \( t \) can be taken as given by the budget. Taxes can be treated as a function of this year’s profit only.

\[ T_t = T(P_{w,t}) \]  

(7.6)

Exports can also be treated as exogeneously given at the start of the period as this is determined mainly by demand for exports from abroad and hence determined outside the system. Imports can be taken to be determined within the system. To identify the factors which determine the imports, we can consider it as consisting of two components. One part of the import demand is created on account of investment expenditure (white and public sector investment) which depends on the import content of the investment and
government expenditure. The other component is because of consumption expenditure, both white as well as black.

\[ IM_i = IM(I_w, G_t, C_{wr}, C_{br}) \]  

(7.7)

If we incorporate equation (7.2) to (7.6) in (7.1), we get the full model as follows,

\[ (P_w - T)_t + P_{b,t} + I_n = I_b(P_{b,t-\phi}) + I_w(P_{w,t-\phi}) + C_b(P_{b,t-\gamma}) + C_w(P_{w,t-\lambda}) + G - T(P_{w,t}) \]

\[ + [\bar{X} - IM(I_w, G_t, C_{br})] \]

\[ P_{w,t} + P_{b,t} + I_n = I_b(P_{b,t-\phi}) + I_w(P_{w,t-\phi}) + C_b(P_{b,t-\gamma}) + C_w(P_{w,t-\lambda}) + G - T(P_{w,t}) \]

\[ + [\bar{X} - IM(I_w, G_t, C_{wr}, C_{br})] \]  

(7.8)

This complete open model will be used in the subsequent sections to derive some new results, the open economy multiplier, the validity of the concept of 'twin deficit', the impact of stabilisation programme and the effect of tax evasion on the macroeconomy. In Chapter 5, we derived the closed economy multiplier in presence of tax evasion. The analysis presented differs from the earlier attempts made by Peacock and Shaw (1982a). The analysis of tax evasion and the macro economy by Peacock and Shaw (1982a) was the first major attempt to understand the macro economic impact of tax evasion in a closed Keynesian macro framework. It was followed by Ricketts (1984), Lai and Chang (1988), Zameck (1989) and Bhattacharyya (1994).

### 7.6 Tax evasion, multiplier and the macroeconomy

Since black incomes have been defined as factor incomes, property incomes, the suggested model, which distinguishes between two categories of income, wages and profits, can incorporate black income as tax evaded profit income. As pointed out above and argued in Chapter 5, consumption and investment behaviour out of white and black profits differ depending on the underlying institutional differences in terms of nature, objective and the method of generation of black incomes. Peacock and Shaw (1982a) model had two types of incomes, white and black, without distinguishing between the two
categories of incomes earned by the two different classes. The important aspect of the model is black investment, which constitutes a leakage from the circular flow of income, as argued earlier. Given these basic structural differences, we explain below the differences in the multiplier derived from the suggested model in comparison with the multipliers as developed earlier in the literature (Peacock and Shaw 1982; Lai and Chang 1988; Bhattacharyya 1994).

Our approach differs from the earlier ones on the following grounds. One, expenditure determines the level of profit, which in conjunction with wages and salaries, determine the level of income. In a Kaleckian framework, this sequence involving two stages is clearly recognised. Two, consumption expenditure should ideally be a function of incomes earned in the previous periods. If consumption is assumed to be a function of this year’s income, the question arises, what determines the current period income. In fact, consumption expenditure is one major factor, which determines the current period income. In Chapter 5, black consumption was assumed to be a function of current period income. Ideally speaking, it should also be a lagged function with a shorter lag length compared to that of white.

7.6.1 Tax evasion multiplier – A comparison

Peacock and Shaw (1982a) showed that the tax evasion multiplier is positive in presence of tax evasion. The multiplier was shown to be crucially dependent on the relative magnitudes of marginal propensity to consume (mpcs) out of white and black income. If the mpc out of black is more than that of white, as argued to be the case, value of the multiplier rises as generation of black income leads to greater volume of injection in terms of black consumption expenditure. So, in effect, tax evasion leads to a higher level of income. In Chapter 5, it was shown that this may not be the case as black investments may pull down the profile of income generation because, as argued earlier, some channels of black investment constitute a leakage from the circular flow of income. Furthermore, the Keynesian framework of Peacock and Shaw does not distinguish between two categories of income, wages and profits. With the growth of black income, distribution of income tilts in favour of the profit earners, depressing thereby the aggregate level of consumption expenditure. This is because consumption expenditure out of wages is greater.
than the share of capitalist's consumption out of profits. So, the net impact on consumption on account of the distributional shift in income in favour of the profit earners depends on the net impact of two conflicting forces, one, with the growth of black incomes, consumption out of black profit increases as mpc out of black profit is assumed to be greater than that of white profit, and two, a fall in the share of wages would lower the share of consumption expenditure in income.

The adverse impact of black investments can outweigh the positive impact of black consumption expenditure to produce a net negative effect. Since black investments and their macro impact and distributional change in income are not recognised by Peacock and Shaw and others, their multiplier captures only the positive consumption effect and hence the multiplier was shown to be positive.

7.6.2 The open economy tax evasion multiplier

In the open economy, the value of the multiplier will change, as there are elements of black consumption and black investments, which have implications for the leakage from the economy with consequences for the balance of payment. Below a model is presented which recognises that the import intensity of consumption out of black profit is more in comparison to consumption out of white profit.

Gross profit in the open economy is determined by private investment \( (I_p) \), capitalist's consumption \( (C_{cl}) \), government expenditure \( (G) \) and trade surplus \( (X_t - IM) \), (see equation 5.40).

\[
P_p = I_p + C_{cl} + G + X_t - IM_t
\]  

(7.9)

The import is assumed to be a function of consumption expenditure, white and black, and an autonomous component. It can be expressed as follows,

\[
IM_t = m_w C_{wt} + m_b C_{bt} + IM_o
\]  

(7.10)

Where \( m_w \) and \( m_b \) are the import propensities of the consumption expenditure, white and black respectively.

The investment function as introduced in the Chapter 5, where \( \gamma \) is that proportion of black investment which does not contribute to growth augmenting private investment because of leakage from the circular flow of income and less backward and forward
linkages of black investment, \( I_o \) is the autonomous part of investment, \( q \) is the accelerator, \( p \) is the ratio of profit as explained in Chapter 5.

\[
I_p = pq (Y_t - Y_{t-1}) + I_o - \gamma P_{b_{t-1}} \tag{7.11}
\]

The functional form of the government expenditure was derived in Chapter 5. It was,

\[
G_t = g (Y_t - Y_{t-1}) + g_o \tag{7.12}
\]

Therefore, using equations (7.9) to (7.12), we obtain,

\[
P_t = pq (Y_t - Y_{t-1}) + I_o - \gamma P_{b_{t-1}} + c'_w P_{w_{t-1}} + c_b P_{b_{t-1}} + g (Y_t - Y_{t-1}) + g_o + X_o \tag{7.12}
\]

Where 'e' is the degree of evasion, or in other words, proportion of black profit in total profit.

Since \( P_t = \{(1- \alpha)Y_t - \beta\} \) where \( \alpha \) denotes the incremental change in wages and salaries due to a small change in income and \( \beta \) is the constant which denotes that this portion of wages and salaries do not vary with income, as explained in Chapter 5. Therefore,

\[
[(1-\alpha)\{1- e c_b(1-m_b)\}-(pq + g)] Y_t = [(1-\alpha)\{c'_w (1-m_w) (1- e)- ye\}-(pq + g)] Y_{t-1} + C_1
\]

(7.14)

Where,

\[
C_1 = I_o + \beta + ye\beta - c'_w (1- e) \beta - c_b e \beta + g_o + X_o + m_w c'_w (1- e)\beta + m_b c_b e\beta - IM_o
\]

The above first order difference equation is of the following form,

\[
A'Y_t - B'Y_{t-1} = C_1 \tag{7.15}
\]

The equilibrium level of income is given by the particular solution of (7.15),

\[
Y_t = C_i / (A' - B') \tag{7.16}
\]

Where \( A' \) and \( B' \) are suitably defined as follows,

\[
A' = (1- \alpha) - (pq + g) - c_b e. (1- \alpha)(1- m_b)
\]

\[
B' = - (pq + g) + (1-\alpha)\{c'_w (1-e) (1-m_w) - ye\}
\]

The dynamic path of income converging towards the equilibrium value is given by the general solution of (7.15),

\[
Y_t = K (B' /A') + (C_i) / (A' - B') \tag{7.17}
\]

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Where, \( K \) is a constant, determined by the initial conditions.

So the new equilibrium value of income is,

\[
Y_{e,\text{open}} = \frac{C_1}{1-\alpha} \left[ 1 - c'_w (1 - m_w) - e \{ c_b (1 - m_b) - c'_w (1 - m_w) - \gamma \} \right] 
\]

(7.18)

If we change the level of autonomous expenditure, say by \( \Delta A \), the new level of equilibrium will be given by

\[
Y'_{e,\text{open}} = \frac{C_1 + \Delta A}{1-\alpha} \left[ 1 - c'_w (1 - m_w) - e \{ c_b (1 - m_b) - c'_w (1 - m_w) - \gamma \} \right] 
\]

(7.19)

The denominator is positive if \( \{ c_b (1 - m_b) - c'_w (1 - m_w) - \gamma \} \) is greater than zero.

As 'e' tends to zero, i.e., with the disappearance of the black economy, the value of the multiplier tends to the conventional text book type Keynesian expression,

\[
\theta = \frac{\Delta A}{1-\alpha} \left[ 1 - c'_w (1 - m_w) \right] 
\]

(7.20)

In presence of black economy, the multiplier is

A. Larger, if \( \{ c_b (1 - m_b) - c'_w (1 - m_w) - \gamma \} \) is greater than zero, and

B. Smaller, if \( \{ c_b (1 - m_b) - c'_w (1 - m_w) - \gamma \} \) is less than zero.

Peacock and Shaw (1982a) showed that tax evasion raises the value of the multiplier as \( c_b \) is assumed to be greater than \( c'_w \). From equation (7.19), it follows that in an open economy, the import content of black consumption vis a vis white consumption should be taken into account as import is a leakage from the circular flow of income. So, that part of black consumption expenditure, which is spent on domestically produced goods and services ought to be compared with the corresponding part of white consumption. The additional factor, which is likely to offset the positive impact of high marginal propensity to consume out of black profit is the factor \( \gamma \). This factor, which represents a fraction of black investment, which is a leakage from the circular flow of income as some channels of black investments are not growth augmenting as explained above. So the multiplier can well be smaller in case condition (b) holds good.

If we compare the equilibrium value in the open economy with that of the closed economy derived in the last chapter, it can be shown that the numerator is smaller and the denominator is larger as long as the marginal propensities to import out of white and black are positive.
The shift in the distribution of income in favour of the profit earners on account of
growth in black income is reflected in a reduction in the value of the parameter \( \alpha \).
Therefore, a rise in \((1-\alpha)\) reduces the value of the multiplier.

The stability of the first order difference equation is given by \((B'/A') < 1\), i.e., \(Y_t\)
converges to an equilibrium value \(Y_e'\).

\[
\begin{align*}
\text{Or, } & -(pq + g) + (1-\alpha)\{c'_w (1-e) (1-m_w) - \gamma e\} < (1-\alpha) - (pq + g) - c_b e. (1 - \alpha)(1 - m_b) \\
\text{or, } & \{[-(pq + g) - \gamma e (1-\alpha) + c'_w (1-e) (1-\alpha) - m_w c'_w (1 - e) (1-\alpha)]/ \{(1-\alpha) - (pq + g) - c_b e. (1 - \alpha) + m_b c_b e (1-\alpha)\}\} < 1 \\
\text{or, } & c'_w (1 - e) (1 - m_w) + c_b e (1 - m_b) - \gamma e < 1
\end{align*}
\]

(7.20)

We can compare the above speed of adjustment with the one in absence of black
economy (i.e., \(e = 0\)).

\[
c'_w (1 - m_w) < 1
\]

(7.20A)

Equation (7.20) can be rewritten in the following form,

\[
c_b e (1 - m_b) < 1 - c'_w (1 - e) (1 - m_w) + \gamma e
\]

or,

\[
c_b e (1 - m_b) < \{1 - c'_w (1 - e)\} + c'_w m_w (1 - e) + \gamma e
\]

(7.21)

The elements on the right hand side of equation (7.21) are all leakages from the
circular flow of income. \(\{1 - c'_w (1 - e)\}\) denotes marginal propensity to save out of white
profit, \(c'_w m_w (1 - e)\) signifies marginal propensity to import out of white consumption and
\(\gamma\) represents also a leakage. The element on the left hand side is injection out of black
profit. In case, the left hand side of equation (7.21) is greater than the sum of all leakages,
the stability condition as given in equation (7.20) is violated. A high degree of evasion, a
high propensity to consume out of black profit and a low import content of black
consumption are the factors, which can contribute to instability.

In case of stability, the economy will converge towards the new equilibrium at a
speed given by the magnitude of \((B'/A')\). In case, \(0 < (B'/A') < 1\), the economy will be
converging in a monotonic fashion. In case \((B'/A') < 0\), the path towards the equilibrium
will be oscillating in nature.

The speed of adjustment is lower compared to the closed economy derived in
Chapter 5 as a part of consumption expenditure leaks out of the economy.

\[
Y_{e, \text{open}} < Y_{e, \text{closed}}
\]
Speed of adjustment $\text{open} < \text{Speed of adjustment } \text{closed}$

So in an open economy, not only the economy will gravitate towards a lower equilibrium income but it will do so at a slower speed compared to the closed economy as derived in Chapter 5. This is because of an additional leakage of demand from the economy on account of higher import intensity of black consumption. The earlier derivation of multiplier in the presence of black economy in a closed economy, (Peacock and Shaw 1982a; Bhattacharyya 1994) showed that the multiplier would be greater as the marginal propensity to consume out of black income is more than that of white income. In Chapter 5, we showed that this result is incomplete, as it does not take into account the specific characteristics of the black economy. It was shown that the investment profile would tend to be lower owing to the black investment, which would pull down the profile of income generation. In an open economy, we now show that the positive effect of the black consumption as stressed by Peacock and Shaw (1982a) is less. In an open economy, the higher marginal propensity to consume out of black profit would be partially offset by the higher import intensity of consumption compared to the white counterpart as argued in Chapter 5. Effectively, in an open economy, the condition becomes,

$$c^*_b (1 - m_b) > c'_w (1 - m_w)$$

(7.22)

for the multiplier to be positively responding to tax evasion, ceteris paribus. Clearly, in an open economy, the above condition may not be tenable because of high propensity to import out of black incomes.

Peacock and Shaw (1982a) argued that the extent of tax evasion by the tax payer and tax loss to the exchequer are not equal since consumption out of black income triggers off a series of income generation and therefore a source of additional tax generation. It was argued that unless marginal propensity to consume (mpc) out of black is one, tax loss remains positive. Since a part of black income is invested, the marginal propensity to consume is not equal to one and so the tax loss remains positive.

Zameck (1989) broadened the analysis by introducing indirect tax collection out of consumption expenditure along with direct tax collection. The analysis as presented in Chapter 5 cannot be regarded as incomplete because of the absence of the indirect tax evasion. When an indirect tax is evaded, direct tax is also evaded on the undeclared output (Kumar 1999b). But since price does not feature in the suggested model, indirect tax
evasion could not be captured. Lai and Chang (1988) carried out their analysis purely from supply side considerations with demand playing no role in the determination of output and employment, which is contrary to reality.

7.7 Supply side policies

Supply side policies, in sharp contrast with the Keynesian demand augmenting policies, attempt to boost the output and employment through the provision of tax incentives, concessions, reduction and rationalisation of the tax structure, removal of control and regulation. All these are expected to raise profit and therefore, output and income. The basic supply side economics is simply an application of classical and neoclassical theory to government policy making and lays emphasis on aggregate supply rather than on aggregate demand.

The Laffer curve phenomenon, which advocates a cut in tax rate to boost tax collection, therefore, necessarily rely on supply side responses, which are assumed to be highly elastic. Tax cut increases the possibility of a rise in post tax income. Labour supply being positively related to post tax disposable income, it was argued (Lai and Chang 1988) that a rise in post tax income would augment the supply of labour and therefore, would engender a favourable impact on output. What is likely to be the effect on tax collection? The initial impact on tax collection on account of tax cut (or evasion) is negative which is likely to be outweighed by tax gains generated by higher level of income. This result is derived independent of any assumption regarding mpc out of black income. Moreover, the fact that black incomes are property incomes and not wage incomes, is not recognised in the Laffer curve formulation.

The question is how differently the tax payer would react to an increase in disposable income on account of evasion leading to a reduction in the effective tax rate (Peacock and Shaw 1993) as compared to a reduction in the tax rate by fiat. From macroeconomic standpoint, the effect of tax evasion and tax cut on profit and income is indistinguishable. The cut in tax rate by fiat or an effective fall in tax rate owing to evasion by the tax payer is indistinguishable as far as the method of analysis is concerned.
It is clear that evasion is associated with risk, possible detection and penalty. The incentive effects due to evasion are, therefore, likely to be less. As Peacock and Shaw (1993) argued that most commentators agree on the theoretical possibility of Laffer curve rather than an empirical validity. The question, is even the theoretical support to the Laffer curve is unsound. Yitzhaki (1974) showed that if the tax payer exhibits non increasing absolute risk aversion, then punishment effect will dominate and encourage better compliance leading to a higher tax collection. This is because, at a higher tax rate, the temptation to evade increases as well as, the penalty (if the penalty is linked to the tax rate).

As discussed in the last Sections, in the literature (e.g., Peacock and Shaw 1982a) the macro economic impact of tax evasion on income and tax collection was carried out in a simple Keynesian framework in terms of a fall in effective tax rate.

The causality runs from the labour market to the product market as envisaged in the Laffer curve phenomenon and is akin to the pre Keynesian Classical analysis. This is what Keynes and Kalecki opposed. In our suggested framework in the line of Keynes-Kalecki tradition, it is expenditure, which determines the level of employment and therefore, income and not vice versa. As we can see, tax cut leads to a rise in white profit, which cannot be maintained unless there is a commensurate increase in expenditure on the right hand side. If government expenditure is slashed in response to evasion so as to keep fiscal deficit constant, supply side policies may turn out to be ineffective as planned saving exceeds planned investment and inventories accumulate.

Further, it is possible to give a theoretical critique of Laffer curve (Kumar 1995). In today's world, enjoying leisure is not free and involves expense. In the exposition of the Laffer curve, leisure is a good, which can be enjoyed without spending money. With an increase in tax, as the labour supply curve shifts leftward, the worker reduces work effort and seeks to veer towards leisure. But then the worker will not have even the earlier level of income to enjoy the same level of leisure not to talk of an increased amount of leisure hours. So the argument that the worker will reduce work effort to enjoy more leisure is not tenable in the present day context when enjoying leisure involves expenses.
7.8 The Government and the tax evasion

In Peacock and Shaw analysis, government is treated as passive in response to evasion. The government expenditure is assumed to remain unchanged despite tax loss. Collection of lower taxes than that budgeted has macroeconomic implications. In Chapter 5, we treated government as an active entity, which responds to tax evasion. It can respond to tax evasion in different ways like through a cut in its expenditure so as to ensure that actual deficit equals the budgeted deficit. The complete short period model, ignoring time subscripts, as in Chapter 5,

\[ P_w - T + P_b + I_w + I_b + C_w + C_b + (G - T) + (X - LM) \]  

(7.23)

Tax evasion lowers tax collection because declared profits fall while black profits rise. If, declared profits fall by \( \Delta P \), let \( \Delta T \) be the change in tax collection due to evasion. Let \( \Delta G \) be the change in government expenditure in response to tax evasion.

\[ P_w' - (T_p - \Delta T) + (P_b + \Delta P) = G - \Delta G - (T - \Delta T) \]  

(7.24)

Investment and capitalist’s consumption, both white and black, are assumed to be given in the beginning of the period being functions of previous year’s income (from eqn. 7.4-7.7). If the fall in government expenditure equals fall in tax collection, the right hand side remains unchanged. The increase in left hand side due to tax evasion cannot be maintained in absence of a rise in the right hand side of equation (7.23)\(^1\). The fall in demand results in a decline in the white profit. Though individual taxpayer envisages a rise in profit (black) through evasion of taxes, what actually happens that there is a fall in total profit. As discussed in Chapter 4, black incomes are factor incomes, property incomes. So, a rise in the share of black economy implies a rise in the share of total profit, black and white, in income. So for given income, total profit, black and white rises. So the left hand side of the above equation increases while demand remains unchanged, to restore balance, white profit has to fall. Correspondingly income falls. In micro analysis, an individual is envisaged to behave in isolation, and the macro implication of the behaviour of the

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\(^1\) The immediate rise in black consumption would support only to an extent.

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representative individual is not taken into account. This is a methodological problem. As argued in Chapter 5, black consumption is assumed to react immediately to the black profit, there can be a rise in black consumption (if we assume no lag) on the right hand side of equation (7.23), which may counter the negative effect of a reduction in G. So, immediately in the short run there can be some positive impact on the level of profit, if black consumption rises by the amount of tax evaded. However, black savings are high, so this does not happen. In the long run situation, however, consumption out of wages falls, leading to a decline in the overall demand. The adverse effect of black investments will come into play, draining incomes from the circular flow of income and thereby depressing the level of economic activity.

This result is in sharp contrast with Pyle (1989). Pyle argued that tax evasion would not have much of an impact on the level of income and employment of an economy as long as, fall in tax collection is matched by a fall in G.

The result derived above clearly demonstrates that the economy will settle for a lower level equilibrium in case of tax evasion, because an increase in the profit on the left hand side by the amount of tax evasion cannot be maintained unless there is an increase on the level of injection (expenditure) either by black consumption and or fiscal deficit. Since black consumption increases by a fraction of tax evaded, the level of income would fall so that profit falls to the unchanged level of expenditure, in particular, the fiscal deficit.

### 7.9 The long run and the multiplier

In Chapter 5, we discussed the impact of the black economy in the long run. As the share of black income rises in national income, the value of the multiplier falls since the marginal propensity to save (mps) out of white profits is greater than that out of black profit, which in turn is greater than the mps of the workers. So the expansionary impact of the government expenditure falls as the weighted average of mps rises leading to a decline in the multiplier.

In the Peacock and Shaw analysis, only one mpc is used whereas we distinguish between two main categories of income, wages and salaries and profits. In the course of

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working out of the multiplier, distribution of income changes. In a Kaleckian framework, because of its distinction between wages and profit, distribution of income changes in the course of working out of the multiplier. In the short period analysis, the adverse impact of black investments on income cannot be understood as pointed out in Chapter 5.

7.10 The stabilization policy

Using the model given Section 7.5, we investigate what is likely to be the impact of fiscal deficit and why the correspondence between the two deficits, internal and external, may be lacking in the Indian case. As we have observed earlier, fiscal deficit is considered to be the kingpin of the Fund-Bank stabilization package. The empirical results on the correspondence between the fiscal deficit and the measures of external imbalance, the trade deficit and the current account deficit are not conclusive (Rakshit 1991). The saving-investment gap of the economy needs to be redefined in presence of the black economy. Moreover, the literature focuses on two gaps at a time whereas they are all inter related (as shown in Chapter 2), more so in presence of black economy when a part of investment-saving gap of the public sector accrues to the private sector as black saving and does not expand the size of the market in the short run (as shown in Chapter 5). Since consumption, investment and trade accounts have been reformulated in the context of the black economy, we make an attempt to surmise what the likely impact will be on the trade imbalance consequent upon a rise in fiscal deficit. Using a comparative static exercise, we can write our profit determination relationship as follows,

\[ P_w^d + P_b + In = I_w + I_b + C_w + C_b + (G - T) + (X - IM)_w + (X - IM)_b \]  

(7.25)

Where the import function as introduced in eqn.(7.7) can be written in its specific form as follows,

\[ IM_t = IM_a + m_r I_w (P_{w,i-p}) + m_w \overline{C}_{rel} + m_h C_{rel} + m_I I_{gt} \]  

(7.26)

The import function is reformulated to take into account the import intensity of the government expenditure and private investment. 'm_y' signifies the import content of the

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government expenditure, the part of the government expenditure directed on importable, say, for example, oil import, procurement of defence equipment, etc., \( m_p \) denotes the import intensity of the private sector investment. \( IM_o \) is the autonomous part of the import and the rest as before, captures the import intensity of the consumption expenditure, white and black.

In order to ascertain what the impact of a rise in fiscal deficit will be, we use comparative static method, we obtain,

\[
\Delta P^d_w + \Delta P^d_b = \Delta(G - T) - m_g \Delta I_g - m_b \Delta C_b
\]

(7.27)

Investment and consumption, black and white, are taken to be given at the beginning of the period. Interest payment is linked to the accumulated debt, so that it is also given at the start of the period. So given exports, imports rise by the extent of import content of the public sector investment and black consumption.

The expansion in the fiscal deficit is supposed create demand, a part of which spills over to the external account, widening the trade deficit. So, the impact of an increase in fiscal deficit is split between a rise in imports as well as profits, both black and white. The expression derived above says that it is only the real part of the fiscal deficit, which generates demand and the rest boosts the black profit of the capitalists. The trade deficit widens to the extent of direct import content of the government expenditure and black consumption. The increased expenditure generates capitalists' gross profit including the interest payment, a major transfer payment, which accrues to the capitalists. Since white consumption and the white investment are lagged functions, in the short run white profit goes up along with black saving as black consumption takes place immediately. We have argued that the correspondence between the fiscal deficit and the trade deficit is neutralised by the change in saving investment balance of the private sector. Here we can observe that the changes in white profit, black saving and a change in interest payment would negate the correspondence between the twin deficits. Further, changes in import will come about through increased investment and consumption expenditure but in the short period comparative static exercise involving parametric changes between states, those effects cannot be modelled. So, effectively speaking the primary deficit net of transfers to the capitalists is what expands the size of the market in the short run.
7.11 Fiscal crisis and the black economy

A rising fiscal deficit to GDP ratio was identified in the official circles as well as by the lending agency, the IMF, as the root cause behind the economic crisis, which erupted in 1991. The deficit in the revenue account increased in the eighties reflecting low buoyancy of tax revenues and mounting expenditure on interest payment, wages and salaries and subsidies. Despite several measures being undertaken since 1991, comprising a stabilisation programme and a structural adjustment programme, India continues to be in the throes of a fiscal crisis. The outcome of the steps adopted to rein in fiscal deficit in the nineties resulted in a lowering of capital outlay as a percentage of GDP, thereby, adversely affecting capital formation and the long-term growth prospects of the economy.

It was argued in Chapter 5, how the various aspects of the fiscal crisis are related to the growth of the black economy. For instance, high deficit is partially due to artificial escalation of project costs to allow for siphoning out of funds, which ultimately accrue to the propertied as black incomes. The profitability of the public sector units remains depressed owing to the incidence of the same malaise. Poor efficiency of government expenditure and low buoyancy of government revenue weakens the State and blunts the efficacy of its intervention.

Prior to 1991, in the face of mounting committed expenditure and stagnancy in direct tax to GDP ratio, government tended to rely more and more on indirect taxation. The indirect tax to GDP ratio, as a result rose till 1991-92. The composition of tax has shifted in favour of indirect tax. As a result, the indirect tax structure became more regressive and distortionary. This also leads to inflation and stagflationary tendencies in the economy.

As shown in Chapter 5, the black economy generates conditions for the state to slide towards a debt trap. As tax evasion arrests the growth in tax receipts, while government expenditure rises for various reasons widening the public sector deficit. The government perforce resorts to borrowing more than that budgeted. The government has to offer lucrative concessions to the propertied to coax resources out of them. As high rate of return on investments in the unorganised and illegal sectors compete with the funds to be lent to the government, the term structure of the rate of interest in the economy moves up.

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Net borrowing adds to the debt stock and interest payment mounts as the government offers higher rate of interest, fuelling further the growth of government expenditure. The government has to borrow more at a higher rate of interest. As the proportion of interest payment in expenditure rises, the government slides into a debt trap.

Economists in the Classical and Marxist (Patnaik 1984) traditions identify the factors behind the deepening of the fiscal crisis as the failure of the State to have command over the growing surplus at the disposal of the propertied. This was argued to be the result of widespread evasion of taxes and appropriation of benefits from a provision of a wide network of subsidies. While the above factors cannot be disputed, they merely scratch the surface of the problem. It is the growth of the black economy, which also raised the share of property income in national income. The deployment of black saving was determined by a different set of factors, not necessarily under the control of the state. As a result, the state has had less and less control over the circular flow of income.

The New Political Economy (NPE) approach (Bhagwati and Desai 1970; Bhagwati 1982; Srinivasan 1992) attributes poor macroeconomic performance to the failure of the government. This, in turn, was said to be caused first by the creation of the inefficient public sector enterprises in the allocation and distribution of the resources raised and secondly, proliferation of unproductive expenditures (‘rent seeking’ argument) owing to the emergence of interest groups in the society. This view, ‘microeconomic inefficiencies’ is based on neo-classical model of the economy. Widespread malpractice and corruption are the major reasons behind such government failure according to this NPE approach. A well designed legal framework and a sound institutional framework can fail to deliver the intended services because of illegality. So, many of the ‘microeconomic inefficiencies’ as argued by the NPE, can be eliminated with the rooting out of corruption and illegality from the system. The argument espoused by the economists belonging to the tradition of New Political Economy does not go deep enough.

The liberals’ (Rao and Tulshidhar 1991; Mundle 1992; Mundle and Rao 1992) diagnosis of the fiscal malaise based on the emergence of the soft budget constraint is also inadequate. They advocate withdrawal of state because, the government policy has failed but they do not take into account that this is due to the growth of the black economy. It is true that the burgeoning government expenditure is partly the reflection of a government
sucumbing to pressures from various groups. Even the stagnancy in the direct tax to GDP ratio is largely attributable to tax concessions extended to the propertied class from time to time and evasion of taxes. Even evasion of indirect taxes is substantial. The state is weakened, on the one hand, because of the wastage and irrational use of government resources and, on the other hand, sub-optimal growth of revenue collection on the other hand.

There is a common thread running through the argument of all the schools. The failure of the state to have command over the growing surplus of the propertied class, creation of inefficient public sector enterprises and emergence of the soft budget constraint, all relate, directly or and indirectly, to the growth of the black economy. Kumar (1989, 1999a and b) argue that the underlying cause of all this is the growing conflict in society amongst the various ruling groups. They are unable to come to an agreement on policies and use their power to extract concessions legally (resulting in a soft budget constraint) and illegally (resulting in the black economy). Evasion of taxes has led to the accumulation of surpluses and near stagnancy in the direct tax to GDP ratio, inefficient utilization of public resources. So it is the proliferation of illegality and the associated growth of the black economy, which underpin all these lines of argument.

7.12 Revisiting the role of public sector

The advocates for liberalisation argue for a gradual withdrawal of State from the key areas of economic activity where private sector can supposedly do as well or may even be functionally superior and where necessary conditions for free market operations are satisfied. The role of the public sector in the macroeconomy needs to be re-evaluated in the context of the black economy in India. We review below some arguments pertaining to the role of public sector in the economy, in the context of the black economy.

7.12.1 Is lower public sector saving a drag on total saving?

It is often argued (Bagchi and Nayak 1994) that a low and declining public sector saving has arrested the growth of gross domestic saving in India. These are micro-based arguments and miss the macro context of the public sector. Though gross saving of an
economy is merely the sum total of saving by the different economic agents, public sector and the private sector, but these constituents are not independent of one another. It is argued that a reduction in the savings of public sector will lower the aggregate volume of saving, ceteris paribus. Private sector saving (or profit) at any point of time depends on the expenditure incurred on goods and services produced by the private sector, consumption and investment expenditure in general, in the previous time periods and fiscal deficit (or investment-saving gap of the public sector in particular) as shown in equations (4.2) to (4.4) in Chapter 4. Since, causality runs from right to the left, any rise in the right hand side elements (fiscal deficit, consumption, investment, and the trade balance) would lead to a commensurate rise in the left (post tax private sector profit). It follows, that lower the saving of the public sector, (higher the fiscal deficit), higher would be the gross saving (or, post-tax profit) of the private sector, ceteris paribus, in contrary to the popular perception. This is because, the public sector gap utilises the private sector saving (a leakage from the circular flow of income) which cannot be maintained by itself, if not injected back into circulation through expenditure. In other words, higher level of saving is maintained only when it is recycled back into the circular flow of income through higher expenditure. This is the role of the public sector that Keynes (1936) stressed in view of the fact that private sector investment is governed by factors independent of saving.

7.12.2 Crowding out - a critique

It is also argued that prior to 1991, high Statutory Liquidity Ratio (SLR) preempted private sector borrowing and therefore a rise in public sector investment was supposed to have crowded out private sector investment. This standard textbook argument is based on the assumption of constancy in the volume of money supply and given volume of saving. Constancy in the volume of saving is not tenable in the face of a rise in public sector investment (equation 4.1). In a static analysis, allocation of higher funds to the public sector to finance a higher deficit might entail lesser funds available for the private sector. In a dynamic context, this argument is not tenable. Private sector investment would tend to respond to a rise in the size of the market. Higher level of profit would constitute a source of internal saving to finance further investment. Private sector investment is not constrained by the availability of saving. So, higher level of public sector investment would lead to a higher level of income (and saving) and create demand for private sector
investment. So, the possibility is one of crowding in of private sector investment rather than crowding out. Variation in the short term rate would not constrain investment as it is likely to be more responsive to the long term rate which will react to short term rate with a lag and only marginally. In fact, during a boom as Kalecki (1971) has argued, private sector investment would rise as long as the net profitability rises even if interest rate goes up. Moreover, money supply is responsive to the increased demand for credit and the central bank is likely to pursue expansionary monetary policy in the face of pressure on interest rate. This of course, does not mean that higher the deficit, the better. The mode of financing the deficit is an important issue in the long run. Government expenditure financed by borrowing will lead to higher interest payment in future, which would therefore weaken the effectiveness of the government expenditure.

7.12.3 The fiscal deficit and the black economy

The government intervention in terms of expenditure has gone up steadily during the seventies and eighties. Increased borrowing in response to tax evasion is not a panacea in the long run. A rise in the fiscal deficit owing to mounting interest burden reduces the expansionary impact of the fiscal deficit. Interest payment is a transfer payment, which accrues mostly to the propertied and hence demand augmenting capacity is limited (equation 4.2, 5.5). There is another transfer due to black income generation, e.g., siphoning out of funds as discussed above, which also accrues to the propertied. These transfers, white and black, do not enhance the size of the market and therefore leave output and profit unchanged in spite of a rise in the fiscal deficit. It is the primary deficit net of black transfers, which expands the size of the market and hence boosts profit/output.

We have argued in Chapter 5 that the reported fiscal deficit (or, investment-saving gap of the public sector) is not the deficit we should be concerned with for assessing its macro impact and it would have been different in the absence of the black economy. Public sector investment is higher than what it could have been on account of cuts and commissions, which siphon out a part of the government expenditure. Saving is also lower because the profitability of the public sector is affected through various types of malpractices like artificial cost escalation. The macro impact of the deficit corresponds to the actual amount spent by the government. So investment-saving gap of the public sector as reported should be distinguished from its real counterpart, the gap, which would have
been in absence of any malpractice. The difference accrues to the private sector as undeclared income (or black profit) and therefore the impact of government spending is less than the one implied by the public sector deficit.

Therefore, government’s investment \( I_g \) equals real investment \( I_{gR} \) plus black investment \( I_{gb} \), which is a leakage. The saving of the government \( S_g \) is lower than the real saving \( S_{gR} \) by the extent of black saving \( S_{gb} \). The above discussion can be depicted in general terms as follows,

\[
I_e = I_{gR} + I_{gb} \quad \text{and,} \quad S_e = S_{gR} - S_{gb}
\]

\[
(I - S)_{govt} = I_{gR} + I_{gb} - (S_{gR} - S_{gb}) = I_{gR} - S_{gR} + (I_{gb} + S_{gb}) = (I - S)_{gR} + S_e^p \tag{7.28}
\]

Where \( S_e^p = (I_{gb} + S_{gb}) \). This represents that the investment-saving gap of the public sector is equal to a real investment-saving gap and a black component which accrues to the private sector as black saving. So the gap is larger than what could have been by the extent of the black saving transferred from the public sector to the private sector. It is corruption, which has debilitated the state over the years and is largely accountable for the poor performance of the public sector. So whenever we talk about the economic impact of the deficit (Rakshit 1991; Balakrishnan 1994), we have to keep the concept of real deficit in mind. In the literature the macro economic impact of the reported fiscal deficit has been assessed without referring to the concept of real deficit. As discussed in Chapter 5, equation (5.10) the concept of primary deficit given in the budget, less legal and illegal transfers \( S_e^p \) which is relevant for demand creation and to assess the impact on external balance.

### 7.13 An explanation for the structural demand problem

The debate on structural demand problem in India in the seventies, which is argued to have inhibited the growth of the industrial sector, assumes a new dimension in the context of the black economy. Bagchi (1970), Mitra (1977), Nayyar (1978) and Chakravarty (1979) have argued that distribution of income in favour of the propertied...
class with low propensity to consume has led to a shrinkage in demand for industrial products. Rakshit (1989) argued that the saving-investment puzzle in India, stagnation of income growth despite high share of investment can be understood along Keynesian lines. The explanation advanced by Rakshit, in fact remains deficient in the context of the India specific economic and institutional characteristics. The rise in the propensity to save in comparison with the investment was argued to have caused a low rate of growth in output. The question remains why?

Since black incomes are property incomes, growth of the black economy raises the share of profits in national income. This in turn, raises the average propensity to save in the economy as a whole, since saving propensity out of profit, white or black, is greater than that out of wages and salaries. So, as the distribution of income changes with the growth of black economy, the multiplier, which is the inverse of the average saving propensity to save, declines as shown in Chapter 5. A rise in the saving propensity unaccompanied by a rise in investment is consistent with the growth of the black economy because of the relative ineffectiveness of the black investments.

This can be put in another way with the help of the Harrod-Domar type growth model as shown in Chapter 5. As argued in Kumar (1999b), the saving-income ratio rises and the incremental capital-output ratio falls due to the black economy. So, the warranted growth rate rises due to the black economy. This puts a depressing effect on the actual rate of growth of the true economy. The increase in the average propensity to save would raise the warranted rate of growth of the economy, given the incremental capital output ratio. If the actual rate of growth of the economy falls below the warranted rate of growth, which is likely to be the case in the absence of the expansionary role of the black investment, the actual growth rate of the economy would fall.

Though the growing black saving, get translated into black investment, as argued earlier, many of the black investments are in the nature of transfers and therefore do not enhance the productive capacity of the economy. In case they create demand for non reproducible assets, the price of the asset rises without there being a commensurate rise in production, and, therefore income. Transaction in the secondary stock market and the land market are such examples. A part of black saving leaks out of the economy in the form of

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capital flight. Since the structural demand problem is based on the distribution of income, the argument remains incomplete without any reference to the black economy.

7.14 The monetary sector and the black economy

The importance of the black economy in the discussion of the monetary sector has been commented upon in Chapter 3. We argued that the discussion of some critical issues related to the monetary sector in India, for example, the stability of the money demand function, effective conduct of monetary policy would remain incomplete without any reference to the black economy. The recent studies, (e.g., Rangarajan 1998; Mohanty and Mitra 1999) on monetary aspects in India have ignored the importance of the black economy. There were two studies (Acharya and Madhur 1983; Sundaram and Pandit 1984), which dealt with the implications of the black economy in the effective conduct of the monetary policy, though in a limited way.

7.14.1 The income velocity of money circulation in the presence of the black economy

In the empirical studies on the various aspects of money, the various measures of money supply are related with the recorded GDP and the administered interest rate. The empirical testing based on data from the white economy alone cannot capture the true monetary dynamics. Moreover, the use of annual or even quarterly data masks the volatility in money circulation as fluctuations are generally of short term in nature. It is true that while the measures of money supply are authentic, the recorded GDP is not. On account of the black economy, GDP is underestimated and transactions related to this economy are missed out. As discussed in Chapter 3, the GDP can not even capture the total volume of transactions related to the white economy as it leaves out transactions related to, for example, financial transfers, sale of second hand assets, intermediate consumption, which are not reflected in the estimation of GDP. Therefore, income velocity of money circulation, which relates recorded GDP with measures of money supply is underestimated as the recorded GDP does not reflect the entire gamut of transactions that money circulates.
7.14.2 The black economy and its effects on the volume of money supply

In Chapters 5 and 6, we have discussed that some channels of black investments, like capital flight and smuggling, result in an illegal outflow of funds financed by the parallel market. This affects the level of foreign exchange reserves at the disposal of the R.B.I. and hence the potential volume of money supply. Since rupee is not convertible, rupee circulates within the economy from say, smugglers, the demanders of foreign exchange and hence suppliers of domestic currency to the people who are supposed to get remittances (and hence demanders of domestic currency) from abroad through illegal channel. Corresponding to this, there is a corresponding flow of foreign exchange abroad which moves in the opposite directions, which should have ideally accrued to the RBI in absence of the black economy. So short-circuiting of remittances from abroad, smuggling and drug trafficking all lead to cross-border transactions in foreign exchange. Since, foreign exchange is one of the components of money supply, the potential level of money supply is affected.

7.14.3 Monetary targeting in presence of the black economy

Effective monetary targeting requires two condition to be satisfied, one, the stability of the money multiplier, which in turn, entails the stability of its constituents, the currency deposit ratio held by the public and reserve deposit ratio of the banking system, and two, the banks should remain fully loaned up.

Both the constituents of the money multiplier are subject to variations attributable to factors originating within the black economy. As discussed in Chapter 3, the demand for funds may also originate from sources other than the white economy. Moreover, as discussed in Chapter 5, one channel of black investment is deposits in banks and informal sector saving. The functioning of the Non-Bank Financial Corporations (NBFCs, including the informal sector) do not adhere to the fractional reserve system which is a key institutional feature required for the working out of the money multiplier. Therefore, the operating of the informal sector finance activities is likely to render the money multiplier unstable. Even the black transactions often lead to a series of transfers from one party to the other before they get either linked to the real economy or leak out of the economy.

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This, not only lowers the income velocity of circulation but renders the cash deposit ratio of the public unstable. In brief, the existence of the black economy can affect the money multiplier as well as the working out of the multiplier, rendering monetary targeting difficult.

7.14.4 The black economy and the available framework for monetary analysis

Ricketts (1984) argued that in presence of a monetary sector, the tax evasion multiplier could be negative. A rise in tax evasion representing a fall in effective income tax rate would in fact, lower income rather than raising it as in Peacock and Shaw (1982a) model. As we may recall tax evasion leads to a higher level of income in Peacock Shaw because mpc out of black profit is greater than that of white profit. This is elucidated in an IS-LM framework where money demand and saving are assumed to be functions of disposable income rather than income (Rickets 1984). Tax evasion, therefore raises the demand for money, which, given constant money supply, pushes up the interest rate. On the other hand the IS curve shifts rightward as tax evasion changes the parameters. The net outcome may be a rise in interest rate with a fall in income. We have argued money supply to be largely accommodative (in Chapter 3) in nature, in particular, the demand for currency. So the interest rate would rise not because money supply is fixed but because the government has to offer a higher interest rate to borrow, which sets the term structure of interest rate for the economy as a whole. This is not to say that the demand for and supply of money do not play any role in the interest rate determination. As mentioned in Chapter 6, the black transactions across the economy’s border tend to depress the potential level of money supply in the economy. So, the underlying factor behind a gradual rise in the interest rate is the black economy operating through a different mechanism.

7.15 The open economy implications for the black economy

The various aspects of the open economy debate on the Indian economy deserves a fresh look in the backdrop of our suggested framework. In Chapter 6, we discussed the macro implications of the black economy in an open economy. It was argued that consumption and investment expenditures, the determinants of profits in our suggested
framework, have significant open economy overtones. In an open economy, the value of the multiplier falls further because of the high import intensity of the black consumption compared to that of the white consumption as shown earlier in Section 7.6. In the context of the discussion in Chapter 6, the main conclusions can be summarised as follows.

7.15.1 The open economy macro data is suspect

The magnitudes of the macro variables, like exports, imports, current account balance are suspect. Its implication for the potential level of money supply, stock of foreign exchange has already been touched upon in the last section. As brought out by several studies (Rishi and Boyce 1990; Zdanowicz et al. 1996) fake invoicing of exports and imports in India have been extensive. In case of under invoicing of exports and over invoicing of imports, the ‘true’ trade deficit is smaller than what is reported as shown in Chapter 6. It was argued that the black component of the current account may be in surplus, implying a net injection of demand into the economy. So the reported trade balance and the current account balance are not the ‘true’ ones and it makes little sense to draw conclusions based on use of reported deficits.

7.15.2 The black economy makes the economy more open

When the demand for foreign exchange can not be satisfied by the banking authority, either because of regulation or because of scarcity of foreign exchange, the excess demand spills over to the parallel market which is fed by under invoicing of exports, drug trafficking and short circuited remittances sent from abroad. The black market premium on foreign exchange is determined by the illegal sources of supply and demand for foreign exchange emanating from the black investments as shown in Chapter 6. The emergence of parallel market makes the economy more open as it finances the illegal discretionary outflows of capital. This negates the efficacy of economic policies, fiscal and monetary and make the extant foreign exchange restrictions ineffective. The State can tolerate premium only up to a level. If the premium exceeds the level, the government resorts to devaluation. Recourse to devaluation may, in fact, further boost the incentive to stash funds abroad as it gives rise to the expectations of a further round of depreciation, since the rate of return on invested capital abroad is the rate of return plus expected depreciation. This can aggravate a situation of imbalance in BoP.
7.15.3 The saving and the foreign exchange constraint: orthodoxy and rethinking?

The two-gap model (Dutt 1995, Sen 1987, Bagchi 1970b, Bhagwati 1967) showed how investment can remain constrained by the scarcity of saving and foreign exchange. If saving depends on past levels of investment as argued above, and saving equals investment ex post at the end of the period, the question is how can savings constrain investment?

It is, in fact, the form of savings, which matters. The total volume of saving may not be available for investment as it may be deployed in various forms not necessarily channelised into capital formation. This is more so in the presence of black economy when black saving takes the form of black investments. As argued earlier, some channels of black investments are in the nature of transfers and a part of it escapes the economy resulting in a loss of investible resources. White investment which leads to capital formation remain constrained not by the volume of saving but by the form it takes.

Scarcity of foreign exchange can genuinely limit the level of investment to the extent of investment, which needs to be imported and cannot be financed by the available foreign exchange. The country loses precious foreign exchange as exports are under invoiced, remittances are short circuited, over invoicing of imports and smuggling. So the saving and the foreign exchange constraints limiting investment and thereby growth needs to be looked at from the perspective of the black economy. The available literature (Taylor 1990) continues to ignore this vital aspect of the economy.

7.15.4 The three-gap model

In addition to the two gaps as given in the two-gap model, a third gap, the fiscal gap, was introduced, (Bacha 1993; Taylor 1994) which can also circumscribe the level of investment. This is because, as argued conventionally in the literature, higher the deficit, lower is the volume of saving available for financing private investment (see equation 1.13).

In our suggested framework, the causality runs from investment to saving rather than the other way round. High level of primary deficit expands the size of the market and supports a higher level of profit. The concept of potential level of saving as discussed by Bacha (1993) is not tenable as the concept is not akin to the given size of the cake. As
shown in the suggested framework, saving at any point in time depends on the expenditure incurred or the extent of utilisation of leakage (saving), the private investment, the fiscal deficit, and the balance of trade. So higher the deficit, higher is the level of saving. This issue has been addressed in the earlier section. An increase in public sector investment was argued to crowd out the private sector investment. The possibility of crowding in rather than crowding out has been discussed to be unjustifiable in the earlier section. Furthermore, the gaps are all different in the presence of the black economy.

7.16 The sectoral balance in presence of black economy

Rao, et al (1999) have found serious inconsistencies in the macro economic data base of India. The consistency of the macro database can be scrutinised as the real variables would find its counterpart in the monetary variables and vice versa. Moreover the aggregate investment-saving balance of the economy would be reflected in the external account balance. Though they have tried to explain the inconsistency in the data in terms of independent sources of data and methodology without any reference to black economy. The size of the black economy in relation to the reported GDP is too significant to ignore. In fact, the consistency in the data set would have been surprising. Srinivasan (1996) has recognised the importance of black economy in this regard. The trade and current account data are grossly flawed due to fake invoicing of export and import, smuggling, short circuit of remittances through the parallel market. The saving-investment data are not real in the sense that the recorded data can actually be split into real as well as black component. We have developed from the flow of funds matrix, the sectoral accumulation balances including the black sector and derived the aggregate macro economic balance of the economy as a whole. This contains the saving-investment balance of the black sector in addition to the white private sector and public sector gap, and the external balance.

The endeavour in this thesis has been to stress the need for integration of the black economy into a macro framework for any meaningful analysis of the macro economy of India. In the earlier sections we have tried to highlight how the perception of our economy, its circular flow of income would change because of the interaction between the white and

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the black economy. In this section we present the complete picture of the circular flow of income in the presence of the black economy. The earlier attempts to develop the consistency accounting matrix for India (e.g., Rao, et al 1999) have ignored the interaction between the black and the white economy. They concluded that the ‘large mismatches, discrepancies or errors and omissions’ in the consolidated accounts of the nation ‘can not be ascertained’.

We make an attempt to show how the different magnitudes of the macro variables, like investment-saving gap of the private sector, the external account balance, or even the ‘true’ fiscal gap would change in the presence of black economy.

We present below the budget constraint of the government sector, the private sector and the external sector to derive the saving investment balance for the economy as a whole.

7.16.1 Flow of funds for the Government

The fiscal deficit as it is conventionally defined, represents the gap between total expenditure (consumption \( C_g \) and investment \( I_g \)) and income (\( Y_g \), revenue plus non debt net capital receipts) which needs to be financed by borrowing.

\[
(C_g + I_g) - Y_g = \Delta DC_g + \Delta B_g + \Delta F_g
\]  

(7.29)

The government can borrow from three sources, borrowing from the monetary system \( \Delta DC_g \), direct borrowing from the private sector \( \Delta B_g \) and foreign borrowing \( \Delta F_g \). Equation can be written as saving-investment balance for the public sector as follows,

\[
S_g + \Delta DC_g + \Delta B_g + \Delta F_g = I_g
\]  

(7.30)

This saving constraint for the government sector shows that government savings plus net borrowings is identical to the assets acquired by the government during the accounting period. As argued earlier, government savings would have been more but for the cuts and commissions associated with government transactions. Similarly the government investment is inflated to accommodate the share of the parties involved in the transactions because of the same reason. So, real investment is less by the amount of siphoning out of funds \( S_{bg} \) which accrue to the private sector as black profit. The public sector saving and investment in the above equation refer to the budgeted figures.
7.16.2 Flow of funds for the private sector

For the private sector, we have two budget constraints, one for the white and the other for the black. The saving investment balance of the private sector for the white economy can be presented as follows,

\[ S_{pw} + \Delta DC_p + \Delta F_p = I^*_w + \Delta B_w + \Delta M_w \]  

(7.31)

which states that private sector savings plus borrowing from the monetary system, foreign borrowing equals private sector asset acquisition in the form of money (currency plus demand and time deposits) (\(\Delta M_w\)), fixed investment (\(I^*_w\)) and lending to the government (\(\Delta B_w\)). The fixed investment is that part of total private fixed investment which is financed by the left hand side. The remaining part is financed by the black saving. A part of black saving is invested in the informal sector as well as in the formal sector held as deposits. The informal sector supports private investment, which is otherwise affected by credit rationing in the formal banking system.

The private sector budget constraint for the black economy would take into account the various features of the black economy as mentioned from time to time. We can assume that the monetary system does not provide any loans to finance black investment. There are two sources of saving, the major source is saving out of black profit and the other source is the foreign saving illegally channelled into India through smuggling and the hawala route. The sources of such saving can be the remittances sent from abroad, proceeds from drug trafficking and under invoicing of exports. The total volume of saving can be disposed off in the following ways, (a) held as currency as deposits (\(\Delta M_b\)), (b) lent to the government through the purchase of Indira Vikash Patra, Kishan Vikash Patra (\(\Delta B_b\)), (c) can finance white private fixed investment through informal sector saving (\(I^b_{pw}\)), (d) capital flight (\(I^f_{pw}\)), including demand for gold which ultimately leaks out of the system illegally, (e) the remaining channels black investment (\(I^d_{pw}\)) which circulates within the economy as transfers till these are linked to the real economy through consumption and investment. So,

\[ S_{pb} + S^f_{pb} = I^b_{pw} + \Delta B_b + \Delta M_b + I^d_b + I^f_b \]  

(7.32)

The total black saving comprising domestic and foreign components is equal to a part of white investment not financed by the formal sector saving, a part lent to the government, held as currency, and black investment, domestic and foreign.

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7.16.3 External sector flow of funds

As discussed in the last chapter that current account deficit (CAD) can be written as CAD = current receipts of the external sector less current outlays. Current receipts include net investment incomes accruing to the external sector from the government and the private sector as well as imports of goods and services (IM). Current outlays include sources of income accruing from the foreign residents including transfers to the government and the private sector and net factor payments as well as exports of goods and services. Therefore, current account deficit or positive saving of the external sector must be financed by either by drawing down international reserves or by an increase in net capital inflows.

\[
\text{CAD} = \Delta F_g + \Delta F_p - \Delta IR
\]  

(7.33)

Which says that change in foreign reserves is equal to net of inflow of foreign capital and current account deficit.

7.16.4 Assets and liabilities of the monetary system

The monetary system has a balance sheet accounting identity instead of a budget constraint. This states that the assets of the monetary system, in the form of foreign assets as well as credit extended to the private sector and the government equals its liabilities.

\[
\Delta DC_p + \Delta DC_g + \Delta IR = \Delta M
\]  

(7.34)

The above expression says that total credit extended to the government and the commercial sector, and the stock of foreign reserves add up to the total volume of money supply.

7.17 Saving-Investment balance

We sum up the budget constraints of the government sector and the private sector for white and black, below.

\[
(S_g + \Delta DC_g + \Delta B + \Delta F_g) + (S_p + \Delta DC_p + \Delta F_p) + (S_p + S'_p) = (I^b_{pw} + \Delta B_b + \Delta M_b + I^b_{pb} + I^f_{pb}) + (I^w_{pw} + \Delta B_w + \Delta M_w) + (I_g + S^b_g)
\]  

(7.35)

We know that the following relations hold good,

\[
\Delta M_w + \Delta M_b = \Delta M, \Delta B_b + \Delta B_w = \Delta B,
\]
\[ I^b_{pw} + I^w_{pw} = I_{pw} \]
\[ \Delta DC_p + \Delta DC_g + \Delta IR = \Delta M \]
\[ CAD = \Delta F_g + \Delta F_p - \Delta IR \]

Therefore saving investment balance can be expressed as follows,
\[ (S_g + \Delta F_g) + (S_{pw} + \Delta F_p) + (S_{pb} + S'_{pb}) = I_{pw} + I^d_{pb} + I^b_{pb} + I_g + S^b_g \]
or,
\[ (S_g + S_{pw} + S_{pb} + S'_{pb}) = I_{pw} + I_g + I^d_{pb} + I^b_{pb} + \Delta IR - \Delta F_g - \Delta F_p \] (7.36)

or, \[ CAD_w + CAD_b = (I_w - S_w) + (I_b - S_b) \] (7.37)

The standard conventional three-gap model needs to reformulated in view of the above expression. The three-gap model, which is supposed to reflect the investment-saving balance of the entire economy is partial and incomplete. Since, a substantial portion of the economy is black, there exists an investment-saving gap and a corresponding current account balance for the black economy as well. Therefore, (7.37) refers to the total economy comprising both black and white.

So the black investments can be categorised depending on their impact on the economy. A part of the investment demand escapes the system as capital flight. Since rupee is not convertible, the illegal demand for foreign exchange within the economy rises. This is met by the illegal sources of foreign exchange. So, \( I^d_{pb} \) represents the part of the black investment, which is speculation, investment in illegal activities, which are mostly transfers within the economy.

The various components of black investment, black export and black import can be defined as follows as shown by Kumar (1999b).

Black investment = incremental holding of gold, gems, etc. and balances in foreign account - over invoicing of investment + under invoiced inventories (including hoarding of goods) + undeclared investments in the formal and informal sectors (including for speculation) + increase in cash holding + investment in illegal activities.

So the real investment is lower than the reported white private investment by the extent of over invoicing of investment and greater by the under invoiced inventories. The rest create demand for the foreign exchange (\( I^b_{wb} \)).
The channels which create demand for illegal foreign exchange can be identified. These are considered as black import. Similarly there are sources of illegal foreign exchange, which are akin to export as they do not accrue to the RBI.

The components of black export and import identified as follows,

Black export = Under invoiced exports + export of drugs + under invoicing of tourist expenditures + savings of Indian labour working abroad retained there through the *hawala* route + returns on assets held abroad.

Black import = Under invoiced imports - over invoiced imports + smuggling + Indians undeclared expenditures expenditure abroad on education, health and tourism.

**Table 7.1: The Matrix of Black Investments**

<table>
<thead>
<tr>
<th>Investment</th>
<th>Saving</th>
<th>Import</th>
<th>Export</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>White</td>
<td>Black</td>
<td>White</td>
</tr>
<tr>
<td>$I_{gb}$</td>
<td>$I_{pb}$</td>
<td>$I_{pw}$</td>
<td>$S_{gb}$</td>
</tr>
<tr>
<td>Black public saving</td>
<td>(-)$I_{gb}$</td>
<td>(+)$S_{gb}$</td>
<td>(-)$S_{gb}$</td>
</tr>
<tr>
<td>Black public investment</td>
<td>$I_{pb}$</td>
<td>$I_{pb}$</td>
<td></td>
</tr>
<tr>
<td>Under invoiced</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>inventory</td>
<td>$I_{pb}$</td>
<td>$I_{pb}$</td>
<td></td>
</tr>
<tr>
<td>Over invoiced</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>inventory</td>
<td>$I_{pb}$</td>
<td>$I_{pb}$</td>
<td></td>
</tr>
<tr>
<td>Informal sector saving</td>
<td>$I_{pb}$</td>
<td>$I_{pb}$</td>
<td></td>
</tr>
<tr>
<td>Holding of gold</td>
<td>$I_{pb}$</td>
<td>$I_{pb}$</td>
<td></td>
</tr>
<tr>
<td>Capital flight</td>
<td>$I_{pb}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speculation</td>
<td>$I_{pb}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smuggling</td>
<td>$I_{pb}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over invoiced import</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under invoiced export</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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The above table summarises the macroeconomic impact of the various channels of black investment. Holding of gold and speculation are black investments, which remain confined within the private sector. Similarly, other channels are documented in the matrix above. A part of the government saving accrues to the capitalists as black saving. Similarly for government investment, a part of it accrues as black saving to the capitalist. All the first three channels of black investment manifest as black saving. The fourth and the sixth are transfers within the economy. Capital flight and smuggling assume the form of over and under invoicing of exports and imports.

7.18 Conclusions

India adopted a stabilization package faced with an unprecedented balance of payments crisis in 1991. Macroeconomic disequilibrium was regarded by the government to be the root cause behind such crisis. The thesis started off with the basic contention that the economic rationale behind the ongoing economic reform, in particular, the stabilization package is questionable as it ignores the existence of the black economy of substantial dimension in India documented by many studies. The black economy constitutes a significant portion of our economy and deeply interwoven with the white economy. Since the major macro variables are all affected by the presence of the black economy, any macro economic analysis would not be meaningful unless we incorporate the black economy in an integrated framework. The question of methodology is important because the same question would be answered in different ways depending on the methodology adopted. The thesis has also attempted to suggest a method, which approximates the reality better keeping in mind the institutional characteristics of the black economy. However, it was discussed in Chapter 4 what are the pitfalls of macro-modelling with the black economy.

The various issues on Indian economics, the structural demand problem and the 'Hindu' rate of growth, the stability of the money demand function and monetary targeting, the 'twin' deficit argument, the role of public sector in development and the relevant concept of deficit, the open economy issues and the saving-investment balance of the economy were all re-examined in the context of the black economy.
This thesis can be considered merely as a preliminary attempt to understand the intricacies of the black economy. To unravel the true character of the black economy and its dynamics, more research work needs to be undertaken.