

PARALLEL ECONOMY IN INDIA : THE PROBLEM OF QUANTIFICATION

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It is not difficult to identify the factors accounting for the emergence of the 'unaccounted' economy in India. What is indeed difficult in this context is the actual accounting of the unaccounted income and black money generating in the so-called 'parallel economy' in India. Some attempts have nevertheless been made in the past to provide a quantitative dimension to the problem of parallel economy in India. The purpose of the present paper is to critically evaluate the existing studies relating to the estimation of black money in India and thereby suggest possible means of improving upon the available estimates.

I. INTRODUCTION

It is a widely acknowledged fact that large-scale tax evasion and the consequent generation of black money has virtually led to the establishment of a parallel economy in India. The black economy is 'parallel' in the sense that its operations do not conform to the general functioning of the legitimate economy. In fact, the black money transactions of the unsanctioned economy typically run counter to the broader socio-economic objectives of the legal economy aimed at providing growth with distributive justice in the society. Thus, it follows that black money is an unlawful acquisition, a social evil harming the economy and leading to inflation, corruption, conspicuous consumption and waste of resources.

In this connection, even the reports of several committees and commissions appointed by the government have reinforced the idea that black money poses a serious threat to the ability of the official monetary-credit policy mechanism to manage demand and prices in several vulnerable sectors of the Indian economy.

Of late, the problem of black money seems to have assumed threatening dimensions in India as revealed by the unearthing of various scams and cases of corruption in public life in recent years. For instance, whether it is the discretionary and out-of-turn allotment of petrol pumps, LPG connections and government houses to politically influential sections, the blatant use of money power in elections, the infamous hawala scandal or the fodder scam, all testify to the same deeprooted disease of corruption prevalent in the Indian society which is gradually gaining momentum thereby intensifying the already complex problem of parallel economy in India. In fact, the problems of corruption and black money are involved in a vicious circle. Political and bureaucratic corruption leads to the generation of black money which, in turn, aggravates corruption in the society.

In view of all these far-reaching implications of the parallel economy, it becomes all the more important to estimate the quantitative dimensions of the problem of black money in India. But while estimating the quantum of black money, a major practical difficulty

arises on account of its definition since the term black money may be used in the sense of *stock* as well as *flow*.

The stock of black money refers to the quantum of all the assets accumulated at a point of time that are not held openly and hence are unaccounted in the prevailing tax system. Evidently, the estimation of the quantum of black money in the sense of stock is exceedingly hazardous since with the passage of time the undisclosed assets go on getting absorbed into the mainstream so that it becomes almost impossible to determine as to how much of unaccounted assets are held at a point of time in the economy. Therefore, the various studies conducted so far with a view to quantifying black money in India have essentially focussed on its annual flow. Thus conceived, black money basically refers to that part of the national product generated annually which despite being liable to tax, is not disclosed in the tax returns and is held secretly either in the form of currency or other assets.

It must, however, be conceded that even the estimation of the quantum of annual generation of black money is not an easy task for several reasons. First of all, though the official figures of national income and income actually subjected to tax could provide a useful basis for finding the proportion of national product escaping the tax net every year, yet the problem arises on account of the data base of government in this regard being grossly inadequate and extremely deficient. For instance, in respect of some years, tax demanded as per figures given in 'All India Income Tax Statistics (AIITS)' is much less than the tax actually collected. Moreover, the figures of national income compiled by the Central Statistical Organisation (CSO) themselves suffer from understatement on various counts due to which they are suspected to

be incorrect and incomplete, and this drawback of the available data must also be taken care of while estimating black money generation in the economy. In addition, since the official GNP measures only the legal economic activity, some method of incorporating the income generated in the illegal economy has to be devised in order to avoid the underestimation of the annual generation of black money in the economy. Again, there is a serious data base problem with respect to the considerable portion of black money generated by illegal activities.

These data base problems notwithstanding, some attempts at quantifying the black money generated annually in the Indian economy have nevertheless been made. The purpose of this paper is to critically evaluate the existing studies relating to the estimation of black money in India with emphasis on data related issues and possible means of overcoming the data base problems.

II. ATTEMPTS AT QUANTIFYING THE ANNUAL GENERATION OF BLACK MONEY IN THE INDIAN ECONOMY

Several attempts have so far been made to quantify the annual flow of black money in the Indian economy using different methods and criteria. The major development in this field dates back to the pioneering work of Kaldor (1956) who tried to measure the size of black money generated in India during the year 1953-54 by quantifying the non-salary incomes above the exemption limit of income tax. Towards this end, Kaldor first excluded wages and salaries from the contributions to net domestic product in order to arrive at the total non-salary income. The figures so derived were, in turn, used to find the non-salary income above the exemption

limit on the basis of the assumed proportions for various sectors of the economy. Similarly, an estimate of the actual non-salary income assessed to tax was made for each sector so as to obtain the estimated total non-salary income assessed to tax. Now the size of black money generated during the year concerned was simply measured by the difference between the estimated non-salary income above the exemption limit and the actual non-salary income assessed to tax. In this way Kaldor derived the estimate of black money generated during 1953-54 to be of the order of Rs. 600 crores.

The next attempt at estimation of black money was made by the Direct Taxes Enquiry Committee, i.e. Wanchoo Committee (1971) appointed by the government of India, whose methodology was essentially similar to the one followed by Kaldor. Just like Kaldor's analysis, the Wanchoo Committee's study is also confined solely to the evasion of income tax and that too on the implicit assumption that only non-salary income is evaded. Thus, black money generation is given by the estimate of evaded income EY which is nothing but the difference between \hat{Y} , i.e. assessable non-salary income above the exemption limit and the total non-salary income actually assessed, viz., \tilde{Y} .

In other words, $(EY)^t = \hat{Y}^t - \tilde{Y}^t$ where the superscript t stands for the time which ranges from 0 to n with 0 representing the reference year 1960-61. Dividing the economy into m sectors each being denoted by a subscript i, the assessable non-salary income above the exemption limit, i.e. \hat{Y} for any particular year t, is clearly given by :

$$\hat{Y}^t = \sum_{i=1}^m \hat{Y}_i^t = \sum_{i=1}^m \left(\frac{\hat{Y}_i^t}{Y_i^t} \right) Y_i^t = \sum_{i=1}^m \alpha_i^t Y_i^t$$

Where $\alpha_i^t = \hat{Y}_i^t / Y_i^t$ and Y is simply the total non-salary income.

But since it was still difficult to obtain information on \hat{Y}^t , the Wanchoo Committee made a simplifying assumption that over time, the ratio of non-salary income above the exemption limit to total non-salary income accruing in any of the m sectors remains constant at its level observed in the reference year 1960-61, denoted by the subscript 0.

Mathematically,

$$\alpha_i^t = \hat{Y}_i^t / Y_i^t = \hat{Y}_i^0 / Y_i^0 = \alpha_i^0$$

for t = 0, 1...n and i = 1, 2...m.

Consequently,

$$\hat{Y}^t = \sum_{i=1}^m \alpha_i^t Y_i^t = \sum_{i=1}^m \alpha_i^0 Y_i^t$$

On this assumption, the Wanchoo Committee estimated the annual generation of black money during the years 1961-62 and 1965-66 to be around Rs. 700 crores and Rs. 1000 crores respectively. Projecting this estimate further to 1968-69 on the basis of percentage increase in the national income from 1961-62 to 1968-69, the Wanchoo Committee arrived at a figure of Rs. 1400 crores as the estimate of black money generated for the year 1968-69.

Later Chopra (1982) developed a series of relevant estimates of the annual flow of black money in India for the period 1960-61 to 1976-77 by slightly modifying the Wanchoo Committee's methodology. In addition to the assumptions of Wanchoo Committee, Chopra further assumed that the ratio of non-salary income to total income accruing from various sectors of the economy remains the same at its level observed in the reference year 1960-61.

Denoting total income by I , this assumption can be expressed in mathematical terms as:

$$\beta_t = Y^t / I^t = Y^0 / I^0 = \beta^0 \quad \text{for all } t \text{ and } i$$

$$\rightarrow Y^t = \beta^0 I^t$$

Incorporating the above additional assumption in Wanchoo Committee's analytical framework directly implies:

$$\hat{Y}^t = \sum_{i=1}^m \alpha_i^0 Y^t = \sum_{i=1}^m \alpha_i^0 \beta_i^0 I^t$$

Owing to this modification introduced in Chopra's study, the estimates of black money following from it are also quite different from the ones obtained by the Wanchoo Committee. For instance, as opposed to the figures of Rs. 700 crores and Rs. 1000 crores given by the Wanchoo Committee, Chopra estimated the concerned amount of black money as Rs. 716 crores and Rs. 1539 crores respectively for the years 1961-62 and 1965-66. Adopting the same methodology, the amount of black money generated during the year 1976-77 was estimated to be Rs. 8098 crores in Chopra's study.

But all these studies, essentially employing the Kaldor's methodology of estimating black money in India on the basis of official GNP figures, were criticised by Gupta and

Gupta (1982) on the ground that the latter does not measure the generation of black money through illegal activities since only legal economic activity is reported for its calculation. In order to avoid the resulting underestimation, Gupta and Gupta alternatively adopted Feige's approach of deriving the estimates of black money from total volume of transactions, both legal and illegal, calculated on the basis of currency deposit ratio in the economy. The total value of legal plus illegal transactions, i.e. T , is given by the sum of currency transactions and chequing transactions. The transactions supported by currency can be estimated by working out the turnover rate of currency in circulation, viz., V_1 and then multiplying it by C , i.e. total currency with the public. Similarly, chequing transactions are equal to the average stock of demand deposits DD multiplied with their turnover rate V_2 .

$$\text{In other words, } T^t = V_1^t C^t + V_2^t DD^t$$

Where the superscript t denotes the time-period to which various magnitudes relate. Now a bench-mark year is chosen as the base year 0 for which it is assumed that there was no black money generation, i.e. $(\text{Black Money})^0 = 0$. Then using the formula of T^t , the ratio of total transactions to GNP for the base year, viz., $T^0 / (\text{GNP})^0$ is calculated. Once this base year's ratio is obtained, the estimate of black money generated in any of the succeeding year, say t , is simply given by :

$$(\text{Black Money})^t = T^t / T^0 (\text{GNP})^0 - (\text{GNP})^t$$

In their exercise, Gupta and Gupta assumed that when India started planned economic development, the black money generation was relatively small or nearly negligible in the economy. Accordingly, using the average for the three years, viz., 1949-50, 1950-51 and 1951-52 as the bench-mark for estimating black money,

Gupta and Gupta found that the absolute size of black money in India increased from Rs. 3034 crores in 1967-68 to Rs. 46867 crores in 1978-79.

Subsequently, the National Institute of Public Finance and Policy (NIPFP) conducted a very comprehensive study (1985) to provide a global estimate of black money in India which, due to its detailed and systematic nature, marks a significant advancement over the earlier studies in this sphere. First of all, the NIPFP study deducts the amount of income actually subjected to tax from the figures of income liable to tax in order to arrive at an estimate of that part of black money which generates on account of the evasion of tax on gross personal income. For working out the figures of actually taxed income, the NIPFP study basically relied on the government's annual publication called the *All India Income Tax Statistics* (AIITS). But the data given in some volumes of AIITS was incomplete due to non-reporting by field offices to their central data processing office. Moreover, in the AIITS, no assessments were made on the small salary earners since they were not liable to file returns though in their case, the tax was adequately deducted at source and hence formed a part of the total tax collection. Consequently, the AIITS figures on tax demanded were characterised by a large discrepancy with tax collected in the same as well as preceding year which called for the blowing up of figures reported in AIITS to realistic levels. For this purpose, the NIPFP study relied on the number of assessees on the registers of the Income Tax Department as reported by the Comptroller and Auditor General. Now, to prepare a global estimate of the annual addition to the stock of black money out of the flow of national income, the NIPFP study confined itself to six major areas, viz., production of goods and services, sale of assets, public

sector, private corporate sector, exports and imports. But not being able to ascertain the most probable degree of under-declaration or leakage of income in these areas due to the lack of sufficient data, the study followed the minimum estimate approach, meaning thereby that it chose a degree of under-declaration which could be safely regarded as the minimum in the relevant sector while estimating the annual generation of black money. For instance, the NIPFP study estimated that on account of under-reporting of output or over-reporting of costs, etc., the GDP figures had to be revised upwards by 10 per cent, and half to three-quarters of this increment in GDP could be assumed to be accruing to tax evaders. Similarly, the NIPFP study assumed that in real estate transactions, the black-white ratio was 40:60 as the minimum average for all-India implying thereby that the registered value represented only 60 per cent of the 'true' value of the property. Moreover, the NIPFP study assumed a range of 10-15 per cent of the cost of construction in public sector to be siphoned off as black income and just a 5 per cent leakage in relation to investment in plant and machinery, that too by administrative departments only while it was assumed that there was no leakage at all in such investments by departmental enterprises. Further, the NIPFP study also assumed a leakage of 10-15 per cent as a safe range with respect to private corporate investment by way of kick-backs from suppliers and contractors. Furthermore, the NIPFP study assumed a minimum of 10 per cent of 'free-on-board value of 'traditional' exports and a 10-15 per cent leakage through over-invoicing of imports by the private sector to be the amount generated as black money. After aggregating these different components, the NIPFP study found the global estimate of black money generation to range from Rs. 9958-11870 crores in 1975-76 and from

Rs. 20362-23678 crores in 1980-81. On the assumption that the same percentage of GDP was generated as black income in 1983-84 as prevailed in 1980-81, the NIPFP's study further estimated the absolute amount of black money generated during 1983-84 to range from Rs. 31584 crores to Rs. 36784 crores.

III. A CRITICAL APPRAISAL OF THE VARIOUS ESTIMATES OF BLACK MONEY IN INDIA

A review of the various studies estimating the annual generation of black money in India reveals numerous limitations in their methodology as well as scope. As far as the initial attempts by Kaldor (1956) or later works based on this approach like the studies conducted by Wanchoo Committee (1971) and Chopra (1982) are concerned, their underlying assumption that only non-salary income is evaded is very restrictive. Moreover, by concentrating attention only on the evasion of income tax, these studies have failed to estimate the quantum of black money that generates as a result of the evasion of sales tax, excise duty, customs duties, etc. In addition, these studies neglected the leakage of foreign currency incomes and surreptitious foreign income transfers which led to a considerable underestimation of the black money generation as was, in fact, claimed about the estimates of Wanchoo Committee by its member Rangnekar in his minute of dissent. More seriously, these studies, by relying solely on the official GNP figures and hence confining themselves to only legal activities, overlooked the potential generation of black money out of illegal activities such as black marketing, bribes, smuggling, etc.

Though this lacuna was to some extent removed by Gupta and Gupta (1982) using Feige's method of transaction-income ratio,

yet their study had its own shortcomings. For instance, the underlying assumption of their study that during the base period, viz., 1949-50 to 1951-52, the irregular economy was close to zero is questionable. Thus, to the extent the black money generation was positive in the base year, there is an underestimation of the size of black money in their exercise. Similarly, another assumption of their study, viz., the income velocity in the legal economy is the same as that in the illegal sector can be questioned as several economists believe that the latter is, in fact, much higher than the former. If this is accepted, then the figures obtained in their study will again turn out to be underestimates. Still another serious element of underestimation in the methodology adopted by Gupta and Gupta is that a large number of transactions which are effected through *hundis* or other near money instruments actually go unrecorded in chequing or currency transactions and hence are not covered in their estimate of total transactions. This clearly calls for an upward adjustment in their estimate of black money particularly in the context of Indian economy where the number and size of transactions even in the unregulated credit market is quite high. Furthermore, doubts can also be raised about the validity of the estimates obtained by Gupta and Gupta since in reality the value of total transactions is affected by several factors such as the degree of monetisation, the extent of vertical integration in the economy, the rate of introduction of technical change, etc. Thus, it can be reasonably inferred that the estimation of black money, at any rate, for India is far too serious a business to be handled exclusively by the tool of currency deposit ratio as is done by Gupta and Gupta in their study.

As far as the study conducted by the NIPFP is concerned, though it cannot be denied that it meticulously searched for available

information and data and tried to collate and present a global estimate of black money, yet it suffers from a serious element of underestimation due to certain built-in-depressors essentially embedded in its methodology and the minimum estimate approach followed by it. For example, just like most earlier works in this sphere, the NIPFP study too, overlooks the potential importance of illegal activities as a factor contributing towards the generation of black money annually. Further, the black money estimate of NIPFP is downward biased as due to the paucity of information, it does not incorporate the leakage in machinery imported from abroad. Similarly, the exclusion of property transfers under power of attorney gives another downward bias to the NIPFP estimate of black money. Another major drawback of the NIPFP study is that it relies on the number of assessees on the registers of the Income Tax Department as reported by the Comptroller and Auditor General in order to blow up the All India Income Tax Statistics figures on the actually taxed income.

Though this blowing up is necessary, this way of doing it is not correct when the number of assessments and income assessed go down on account of raising the basic exemption limit since it does not seem justified to blow them up again by a higher factor merely because the ex-assessees still remain on the registers of Income Tax Department or Comptroller and Auditor General. Alternatively, blowing up the data of AIITS with reference to the figures of actual collection of tax in the preceding year appears to be more appropriate. This alternative procedure is justified also in view of the fact that the need for blowing up the figures reported in AIITS itself arose only because the tax demanded as per AIITS was normally much lower than the tax collected in the preceding year.

IV. POSSIBLE WAYS OF IMPROVING UPON THE AVAILABLE ESTIMATES OF BLACK MONEY IN INDIA

A comparison of various studies under consideration immediately brings to the fore, the large discrepancies in the estimates of black money derived by them. For example, for the year 1975-76, the studies by Chopra, and Gupta and Gupta estimated the size of black money generated to be of the order of Rs. 7292 crores and Rs. 18458 crores respectively while the concerned magnitude according to the NIPFP study ranged from Rs. 9958 crores to Rs. 11870 crores. Such large variations in the estimates of these studies are essentially attributable to the differences in their underlying methodologies and coverage.

Among these studies, the study conducted by NIPFP is the most detailed and exhaustive in nature. Some modifications can, nevertheless, be suggested in the approach followed by the NIPFP study so as to make its estimate of black money more reliable. For instance, towards this end, as opposed to the NIPFP's practice of blowing up the data given in the AIITS with reference to the number of assessees on the registers of C & AG, the figures of actually taxed income should instead be scaled up on account of undercoverage in AIITS with reference to the actual collection of tax in the preceding financial year. For example, the AIITS assessment year 1981-82 shows tax demanded at Rs. 566 crores and income assessed to tax at Rs. 2375 crores. But as the tax collected in the immediately preceding financial year, i.e. 1980-81 was Rs. 1506 crores, the figure of assessed income should therefore be worked upwards on a proportionate basis from Rs. 2375 crores to Rs. 6319 crores. Evidently, if the figure of income assessed to tax

obtained in this manner is used instead of the corresponding NIPFP's figure of Rs. 7077 crores, then the estimate of black money generated from evasion of tax on gross personal income turns out to be Rs. 10571 crores for the financial year 1980-81 as against the concerned figure of Rs. 9813 crores derived by the NIPFP study.

Accordingly, the NIPFP's estimate of black money generation for 1980-81, viz., Rs. 20362 crores to Rs. 23678 crores needs to be raised to Rs. 21120 crores to Rs. 24436 crores. Similar upward revisions in the estimate of NIPFP are also needed on account of the generation of black money from illegal activities. Though the information on the income generated in the illegal economy is exceedingly scant, yet the estimates of the black money generating from illegal activities obtained by the methodology adopted in the study by Gupta and Gupta (1982) of working out transaction-income ratio on the basis of currency

deposit ratio could be viewed as the second best alternative in the light of the existing data base of the Indian economy.

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