The Parallel Economy
Its origin, size and impact on the mainstream economy

Jyoti Kumar Agarwal

Executive Summary
We are usually guided in our attempt to understand the world economy by the official statistical data that is available publicly. But in order to truly understand any economy, we need to know both that is recorded and the one that is hidden. The impact of the parallel economy has rarely been recognized to its true potential. The paper attempts a modest effort at trying to understand the phenomenon by first defining it as broadly as possible. It then seeks to investigate into the various reasons which lead to the origination of the parallel economy. To understand the severity of the situation, it then looks at the size of parallel economy in transition, developing and developed economies separately, suggesting in the process some future research that remains to be done. The paper concludes by discussing the positive and negative impact of the parallel economy on the mainstream economy.

Introduction
I am reminded of the days soon after my class X exams, when being strictly instructed to attend to the family business affairs (being the next-in-line, it was desirable that I started early), I was spending the summer with my father at his
Gaddi in Calcutta. He owned a mustard oil mill and the business was generally doing well. It was during this time that I first came to know about the dual facets of business that my father maintained. Transactions were broadly classified as “pucca” (above-board) or “kutcha” (hidden). And while the former were accounted for in the Main Ledger available for perusal by the authorities, the latter were covertly jotted down in a separate book which was kept stashed away so as not be within reach of anybody except those who knew about it.

It takes little intelligence to realize that the transactions recorded in my dad’s secret book were those that pertained to what has been variably referred as parallel (alias underground, irregular, twilight, black, cash, subterranean, shadow, secondary, hidden) economy. Much of economic literature on parallel economy revolves around the methods and techniques of measurement while being unclear about what exactly is being measured\(^1\). And this apparent lack of clarity on the issue of what constitutes the parallel economy is not a minor or semantic issue but one of fundamental importance\(^2\).

**Definition: What after all is the parallel economy??**

The first step to understand the phenomenon of parallel economy would be thus to define it as clearly and correctly as possible. To that end, let us take a look at some of the definitions attempted by noted economists. Feige defines the hidden economy as including those economic activities which go unreported or are unmeasured by the society’s current techniques for monitoring economic
activity. Thus Feige’s definition is broad and describes the parallel economy in terms of behavioral characteristics embracing those activities which are excluded from GDP by convention (Bias) as well as those which elude the measurement process (Measurement Error). Schneider and Enste define the parallel economy as all economic activities which contribute to the officially calculated (or observed) GNP. This definition adopts a narrower view and considers parallel economy as simply unrecorded income. The latter view has found favor with many economists who have contributed to the literature on parallel economy like Bhattacharya, Smith and Tanzi, to name a few. Both the broad and narrow approaches divide the parallel economy into four comparable components: the criminal, irregular, household and informal sectors. While the last two consists of economic activities which are excluded from GDP by definition, the former two constitute of economic activities which are embraced by current definitions of measurable economic activity but which are not captured by current measurement techniques. Carter clubs the first two under Underground Economy and the last two under Informal Economy.

From the above, it is clear that most economists (barring Feige) tend to describe parallel economy as including either only the underground (in Carter’s sense of the word) economy or only the informal economy (see Burns (1975), Geshuny (1979) Eisner (1978) for the latter view). However, in order to understand the degree and true nature of parallel economy, it is necessary to consider both as equally important. This view is supported both by Carter as well as Fleming,
Roman and Farrell⁹. To press the point further, Carter mentions an example which is worth illustrating. A householder, who is discouraged from employing a painting contractor because of higher costs due to taxation and regulation, can either employ a painter for cash on which no tax will be paid or undertake the painting personally. While in both cases the activity escapes measurement leading to a lower GDP, in the former instance, it is transferred to the underground economy while in the latter case to the informal economy. Confining attention to either underground or informal economy (again in Carter’s sense) alone will not uncover the full extent of the hidden economy. The broader definition of parallel economy also helps in estimating the size of the parallel economy in addition to explaining the reasons for the origination of the same, the very topics that form subject matter of this paper.

**Causes for the existence of parallel economy**

Having successfully attempted a workable definition of parallel economy, let us try to investigate into the causes that lead to its origination. The most important cause of parallel economy is undoubtedly high taxes which create obvious incentives to get off-the-book income (My father's principal reason for the “kutcha” transactions was taxes too). The other significant cause is the burden imposed by government regulations and restrictions. If one scans the economic literature on the subject, there is an over emphasis attached to the above two factors as the ones leading to the growth of hidden economy. It is no doubt that high tax rates and pervasive regulation provide the incentive for hidden activity, but the
opportunity to actualize such incentive depends upon other factors such as level of development, social structures, public acceptance of compliance (or tax morality), etc. Thus focusing on the two factors alone is likely to produce neither complete diagnosis nor appropriate prescription. Mofelsky in his essay in “The Underground Economy in the United States” cites avoidance of losing government benefits as an additional reason for participation in the parallel economy. Thus we have the social security fraud in Germany where social security benefits drive many people not to report income or employment in order to avail such benefits. Forte and Del Banco mention two more reasons as a) to achieve greater flexibility in the remuneration and employment of labor and b) to bypass trade union vigilance. Both the reasons are extremely significant for nations with rigid labor laws, like India.

Perhaps the most exhaustive set of reasons for the incidence of the parallel economy is given by Guntmann who attributes the subterranean economy to the following additional causes:

- Inflation which pushes the taxpayers into higher income brackets who in turn try to push part of the cost of inflation onto the government by getting off-the-book income
- Immensely complex tax system, requiring inordinate tax-payer time, paper work and expense
- The increase in the size of government which leaves smaller share of national output for direct consumption by wage earners
• Perception of government as wasteful and inefficient by the public making inadequate use of their hard earned money

One reason for the hidden economy to prop up in developing countries is the shortage situation due to inappropriate industry structures or insufficient capacity. A relevant example would be the cement black market in India over the 1961-82 period when the country suffered from chronic cement shortage owing to the regime of controls that was in place then. Estimates have put the amount of black money generated during this period by the cement sector alone as high as Rs. 7.85 billion\(^1\). 

A historical yet interesting perspective about the origin of parallel economy is given by Bawly: “One of the main causes of the many emigrations, revolts and revolutions so frequent throughout history was public reaction to the imposition of what people believed to be unfair taxes. Passive resistance, in the form of increasing evasion, is the modern expression of such hostility”\(^\text{13}\).

**Size of the parallel economy**

As mentioned earlier, there is an abundance of literature available upon measurement techniques and about estimates of parallel economy. This may make the job of commenting about the size of parallel economy seem easier than it actually is. There arise a number of difficulties starting from choosing the correct method. A variety of methods have been used and the different methods
The Parallel Economy – Its origin, size and impact on the mainstream economy

appear to generate widely divergent estimates. Such macro economic heterogeneity leaves one wary about the reliability of the estimates leading to some believing these estimates as representing “measurement without theory” and relying upon heroic assumptions to justify the manipulation of certain numbers\(^\text{14}\).

Further, most of the measurement efforts have been directed towards measuring (in Carter’s words) the Underground Economy rather than the Informal Economy and to that extent they represent only partial measures of the parallel economy.

While an elaborate description of each of the measurement techniques is beyond the scope of the paper, attempt has been made to give the broad categories under which such techniques can be classified\(^\text{24}\). There are about four specific measurement approaches which need mention:

- **Monetary Approaches**: These are methods based upon the utilization of monetary data to analyze the development of monetary variables and to infer that the anomalies noted in the behavior of these variables is due to the parallel economy. Feige\(^3\), Guntmann\(^{15}\) and Tanzi’s\(^6\) approaches fall under this category.

- **Labor Market Methods**: These are direct approaches based on surveys of real or potential agents of the hidden economy.
Accounting Methods: These methods are used by national accountants to make up for the gap between the GDP - point of view expense and the GDP -point of view income.

Compound Methods: In these methods, all the factors that contribute to the explanation of the parallel economy are simultaneously considered while estimating the parallel economy. Frey and Weck’s work would fall under this category.

Some key estimates are given below:

**Parallel Economy Estimates Under Different Methods**

<table>
<thead>
<tr>
<th>Country</th>
<th>Method</th>
<th>Parallel Economy (as % of GDP)</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Germany</td>
<td>Feige´s Method</td>
<td>24.00%</td>
<td>1980</td>
</tr>
<tr>
<td></td>
<td>Guntmann´s Method</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Tanzi´s Method</td>
<td>8.1%-14.6%</td>
<td>1980</td>
</tr>
<tr>
<td>USA</td>
<td>Feige´s Method</td>
<td>33.00%</td>
<td>1979</td>
</tr>
<tr>
<td></td>
<td>Guntmann´s Method</td>
<td>13.00%</td>
<td>1979</td>
</tr>
<tr>
<td></td>
<td>Tanzi´s Method</td>
<td>8.1%-11.7%</td>
<td>1976</td>
</tr>
<tr>
<td>UK</td>
<td>Feige´s Method</td>
<td>15.00%</td>
<td>1979</td>
</tr>
<tr>
<td></td>
<td>Guntmann´s Method</td>
<td>7.20%</td>
<td>1979</td>
</tr>
<tr>
<td></td>
<td>Tanzi´s Method</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Sweden</td>
<td>Feige´s Method</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Guntmann´s Method</td>
<td>10.00%</td>
<td>1976</td>
</tr>
<tr>
<td></td>
<td>Tanzi´s Method</td>
<td>7.0%-17.0%</td>
<td>1978</td>
</tr>
<tr>
<td>Canada</td>
<td>Feige´s Method</td>
<td>22.00%</td>
<td>1979</td>
</tr>
<tr>
<td></td>
<td>Guntmann´s Method</td>
<td>13.00%</td>
<td>1978</td>
</tr>
<tr>
<td></td>
<td>Tanzi´s Method</td>
<td>2.5%-12.4%</td>
<td>1976</td>
</tr>
</tbody>
</table>
While the above estimates are quite dated, more contemporary estimates are available from Schneider and Enste and are mentioned below grouped by transition, developing and developed economies.

### Estimates of Parallel Economy in Transition Countries

<table>
<thead>
<tr>
<th>Period: 1990-93</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country</strong></td>
</tr>
<tr>
<td><strong>Central Europe:</strong></td>
</tr>
<tr>
<td>Hungary, Bulgaria and Poland</td>
</tr>
<tr>
<td>Romania, Slovakia and Czech Republic</td>
</tr>
<tr>
<td><strong>Former Soviet Union:</strong></td>
</tr>
<tr>
<td>Georgia, Azerbaijan, Ukraine and Belarus</td>
</tr>
<tr>
<td>Russia, Lithuania, Latvia and Estonia</td>
</tr>
</tbody>
</table>

For transition economies, (and perhaps others) the size of the shadow economy may be an indicator of the level of economic and political liberalization and the success of macroeconomic stabilization\(^{18}\). This suggests that, based on the above figures, the Czech Republic, Romania and Slovakia are in best shape.

### Estimates of Parallel Economy in Developing Countries

<table>
<thead>
<tr>
<th>Period: 1990-93</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country</strong></td>
</tr>
<tr>
<td><strong>Africa:</strong></td>
</tr>
<tr>
<td>Nigeria and Egypt</td>
</tr>
<tr>
<td>Tunisia and Morocco</td>
</tr>
<tr>
<td><strong>Central and South America:</strong></td>
</tr>
<tr>
<td>Guatemala, Mexico, Peru and Panama</td>
</tr>
<tr>
<td>Chile, Costa Rica, Venezuela, Brazil, Paraguay &amp; Colombia</td>
</tr>
<tr>
<td><strong>Asia:</strong></td>
</tr>
<tr>
<td>Thailand</td>
</tr>
<tr>
<td>Philippines, Sri Lanka, Malaysia and South Korea</td>
</tr>
<tr>
<td>Hong Kong and Singapore</td>
</tr>
</tbody>
</table>
Countries of the developing world comprise a large and varied group and there is little reason to believe that their parallel economies share anything but the most general of attributes. However, the informal sector component of the parallel economy appears to be of considerable importance to the economic activity of most, if not all developing countries. As Jagannathan notes, outside the pale of the organized sector is the unorganized sector, or informal sector, covering economic transactions of anywhere between 30% and 70% of the country’s GNP\(^{19}\).

While Schneider and Enste do not provide figures for India, the same are given by Dilip Bhattacharya and amount to Rs 1925 billion for the year 1992 or 90% of the GDP at 1980-81 prices\(^{20}\).

### Estimates of Parallel Economy in Developed Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Parallel Economy (as % of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greece, Italy, Spain, Portugal and Belgium</td>
<td>24-30%</td>
</tr>
<tr>
<td>Sweden, Norway, Denmark, Ireland, France, The</td>
<td>13-23%</td>
</tr>
<tr>
<td>Netherlands, Germany and Great Britain</td>
<td></td>
</tr>
<tr>
<td>Japan, USA, Austria and Switzerland</td>
<td>8-10%</td>
</tr>
</tbody>
</table>

The informal sector activity is plausibly of lesser importance in developed countries. This perhaps explains, in part, smaller parallel economy estimates than those for transition/developing countries.
Although much work has examined parallel economies, further research is still required for the examination in greater detail of the similarities and differences of shadow economies between country types and also between countries with similar legal, tax and fiscal systems. Research should also explore the country specific distribution of economic activity between the component sectors.

**Impact of the parallel economy**

Implicit in much of the literature on parallel economy is the view that it is undesirable and detrimental to social welfare. The present section discusses some of the undesirable consequences which have been canvassed in the literature and then mentions some of the benefits that might flow out of it.

The major consequence of the existence of a parallel economy is on economic policy. As this activity is unrecorded, the official national income accounts statistics do not accurately represent the true state of a nation’s economy. Given that these statistics are used to generate economic policies and thus act as an essential guide to policy, if the guide is significantly in error, so also might the policy. Fiege has described this phenomenon as the unobserved income hypothesis (UIH) and suggests that systematic biases, unwittingly introduced into the official data have fundamentally distorted our perception of economic realities. A distorted information system leads rational individuals and well intended policy makers to undertake actions that transform initial statistical illusions into real economic maladies\(^\text{21}\).
Guntmann provides with some examples of biased economic data leading to biased conclusions increasing the likelihood of erroneous policy prescriptions.  

- The overall growth rate of the economy is understated.  
- The official employment rate is overstated.  
- Savings ratio, consumption ratios, savings functions and consumption functions generally are biased.  
- The calculations of average effective tax rates and marginal effective tax rates are overstated.

The hidden economy also affects the revenue and expenditure sides of the government budget thereby affecting government finances. The revenues are affected due to avoidance and evasion of taxation while government expenditures and transfer payments have to be stepped up to stimulate activity in the measured sector which remains depressed due to the existence of the parallel economy.

One of the more serious consequences of parallel economy is difficult to quantify – namely the erosion of public confidence in the system of taxation and general administration and the ability of the government to operate efficiently and fairly.

The hidden economy also has some redeeming features. It provides purchasers with goods and services which they may be unable to obtain through formal
channels. It also lubricates the working of the formal economy. Parallel economic activity is thought to have helped the transition towards market economies and to have mobilized entrepreneurial endeavors in transition economies. Informal activities also confer many benefits on its participants including greater freedom, flexibility of working hours and conditions, self satisfaction and independence.

**Conclusion**

The benefits derived from parallel economy may or may not outweigh the costs associated with such activity and the influence of shadow economy on growth and development remains unclear. A broader definition of the hidden economy and a better understanding of its causes may promote a clearer perception of the true costs and benefits and lead to policies which encourage the positive aspects and minimize the negative. At present, while the extent and the significance of the parallel economy is being increasingly recognized, knowledge as well as reliable econometric tools are limited thereby making our portfolio of appropriate responses remain in its infancy.
References

5. Schneider and Enste, page 5
Philip Smith in Assessing the size of the Underground Economy: The Canadian Statistical Perspectives, Canadian Economic Observer
18. Glinkina, page 103.
24. For an understanding and comparative analysis of the various methods, the reader may refer to the paper by Frey and Pommerehne mentioned under Reference Item no. 1
CURRICULUM VITAE

Jyoti Kumar Agarwal
C/O Navrang
539 G T Road (S)
Howrah – 711101
91-33-6602656
jyotikrag@yahoo.com

Academic Qualifications

• Presently 2nd year student of PGDM Program at Indian Institute of Management, Calcutta with specialization in Finance and Strategy.
• Chartered Accountant from The Institute of Chartered Accountants of India. Passed in May 1996, with all India 35th rank.
• First Class Graduate in Commerce from St. Xavier’s College, Calcutta affiliated to Calcutta University

Academic Highlights

• Among the top 20 students at Calcutta University in the Graduation Examination
• Awarded Prize for all India highest marks in Paper on Systems Analysis, Data Processing and Quantitative Techniques in CA Final Exam
• Topped school in ICSE.

Work Experience

Dec 2000 – May 2001: Assistant Manager (Corporate MIS) at Raymond Limited. Reporting to the top management on matters relating to Corporate Strategy. Assignments handled include valuation of takeover deals, industry analysis, matters pertaining to operations relating to textile plant at Thane, etc.


Extra Curricular Activities

• Founder secretary of the Nature Care Club named Falcon at St Xavier’s College.
• Member of The Consulting Club at IIMC
• Member of MENSA, the International High IQ Society

Interests

Listening to music, reading, solving puzzles and chatting.