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Estimating the Size of the Underground Economy in Kenya and its Tax Potential

The underground economy in many developing countries is perceived to be large. It is generally defined to comprise economic activities undertaken by economic agents that are not accounted for in national income statistics. The activities could be legal or illegal, monetary or non-monetary, and traditional or modern. The illegal ones would be very difficult to capture. The legal, nonetheless, could be captured and measured, although the task is challenging. The government defines the sector as comprising micro and small scale activities that are semi-organized, unregulated, use simple labour-intensive technology, and businesses that may or may not have licenses from concerned authorities and are not registered with the registrar of companies. They are "...those activities mainly undertaken by artisans, traders and other operators in work-sites such as open yards, market stalls, undeveloped plots, residential houses and pavements." Added to these are consultancy services of professionals such as doctors, lawyers, teachers, lecturers, mechanics, and informal financial services providers, among others, whose services are hidden, and some undertaken at home. Most of these activities are not captured in national income accounting.

The underground economy contributes much more to total output in addition to what is thought or revealed by official government statistics to include barter and illegal trading activities. Illegal activities also form part of the underground economy but are difficult to capture and therefore measure.

Knowledge of the size of the underground economy is important in designing policies to attain desired economic goals. Ignoring it would mean that some of the policies designed might largely fail to realize their intended goals in economic development. It also helps develop measures to tap its revenue potential because its activities hide to avoid fiscal responsibility. Furthermore, the activities of the underground economy offer competition to the formal economy and generally lead to over-burdening of the taxpayers in the formal economy.

In Kenya, the underground economy is perceived to be expanding as the modern economy shrinks, which creates a worrisome situation in terms of revenue generation capacity. It would be important to know why the sector is growing, so that if it is a reaction by entrepreneurs to unfavourable policies, then this can be addressed to reverse the trend. It has been

observed, for instance, that some formal medium and large enterprises have been sub-dividing into smaller units to enjoy perceived benefits the small enterprises enjoy. Besides, since illegal economic activities form part of the underground economy, knowledge of such activities would enable the government to exercise control.

The existence of a sizeable and growing underground economy also suggests that the Kenya Revenue Authority has the potential to expand and grow the tax base. The revision of the System of National Accounts (SNA) from 1968 to 1993 reflected the importance and contribution of the informal sector to total output. It captured some output from the informal sector, and especially the "Matatu" transport sub-sector into the official GDP in 2004, resulting in an increase in GDP from 2.8 per cent using the old SNA 1968 to 4.9 per cent using the new SNA 1993. Tapping the large underground economy into the tax bracket, therefore, enhances revenue

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The highest proportion of the underground economy in Kenya was recorded in the 1990s when it averaged 20 per cent of GDP. The potential tax accruable from the underground economy averaged 4 per cent of GDP, thus the tax authority has the potential to expand the tax base by 4 per cent of GDP. For the year 2005, this would have raised tax collections by about Ksh 55 billion. The figure also reveals that the size of the underground economy has been increasing over the years, probably due to improved technology, more stringent regulations and burdensome taxation measures that force many hidden economic activities to emerge.

capacity and the ability to improve public services without over-burdening only those taxpayers in the formal economy.

Spread of the Underground Economy

The underground economy is not peculiar to any part of the world, it is global. Although it is difficult to measure, economists and statisticians have made efforts to gauge just how large it could be. Such efforts claim it is large and growing in almost all countries. In many central and southern America countries, for example, its output constitutes a quarter to a third of the official GDP. Its output is lowest in those countries with comparatively small public sectors such as Japan, Switzerland and the US which, in addition, also enjoy relatively high tax morality. In Kenya, where it is generally referred to as the informal economy or better still the ‘jua kali’ sector, it is estimated to contribute about 18 per cent of the GDP. However, this is only contributed by the part of the underground economy that the government captures. Apart from illegal activities, there are also legitimate activities that go uncaptured and which would boost the contribution of the sector to national output if captured.

To further demonstrate the large size of the underground economy and its growth, it is estimated that in 2006, for instance, out of 469,000 new jobs, the informal economy created the bulk, totaling 418,000. It, therefore, plays an increasingly important role in absorbing the unemployed in the labourforce and, therefore, has the potential to yield more revenue.

Measuring the Size of Underground

Economy

As already acknowledged, measuring the size of the underground economy is not simple and there is no cardinal way of doing it. The difficulty arises from the fact that it comprises a host of traditional and modern activities, monetary and non-monetary activities, and legal and illegal activities. Some of the activities are difficult to measure because they are invisible, hidden and illegal and, therefore, unreported. Other activities are visible but difficult to trace, locate or identify because they are mobile and lack proper records. The measurement difficulties are also compounded by the fact that the sector keeps on evolving all the time, adapting to changes in the changing policy environment, taxation, and new technology that generates many more activities such as street mobile phone bureaus and Internet fraud, among others. Nonetheless, attempts must be made to estimate it and improve the relevance and impact of policy initiatives that capture the sector’s size, importance and role.

Different methodologies have been used in the past two decades to estimate the size of the underground economy in different places. These include both direct and indirect approaches.

Direct approach:

- Sample survey, which estimates the size using survey data
- Tax audit/compliance, which estimates the size of the underground economy from audit measurements of undeclared taxable income

Indirect approach:

- National accounting statistics: They estimate the size on the basis of discrepancy between income and expenditure statistics in national accounting or individual data
- Labourforce statistics: They measure the size on the basis of a decline in labour participation in the official economy, assuming labour has a constant participation rate all the time
- Transactions: They measure it from total volume of monetary transactions by subtracting official GDP from nominal GDP
- Currency demand: It estimates its size from the demand for cash, assuming underground transactions are conducted on cash basis and an increase in shadow economy will generate high demand for cash
- Physical inputs such as electricity: They estimate size from electricity consumption, assuming it is the best physical indicator of overall economic activity. Subtracting growth of official GDP from that of electricity consumption yields growth of underground economy
- Multiple Indicators Multiple Causes (MIMIC) models: They estimate the size of the underground economy as a function of observed variables assumed to influence it, and variables where the shadow economic activities leave traces such as cash, official working time, and unemployment, among others. Its advantage lies in considering multiple causes and effects simultaneously

Despite the existence of several methods, no best one exists since each approach has strengths and weaknesses.

Size of Kenya's Underground Economy

The size of Kenya's underground economy was estimated using the currency demand model, for the reasons of wide usage and data considerations. The model assumes that underground transactions are predominantly effected through cash payments because cash leaves no observable traces for

authorities. The approach recognizes, nevertheless, that not all transactions in the hidden economy are undertaken in cash; that the use of currency ratio to current deposits as one of the variables in the model may be due to a slow down in demand rather than increase in currency due to growth of underground economy, and the dominant assumption that tax burden and stringent regulations are responsible for heightened underground economic activities.

However, the model gives a good indication of the size of the sector. Considered in measuring the size of the underground economy are the recent financial innovations that have a bearing on currency demand, introduced as a ratio of broad money to narrow money. The increase in size of the underground economy, therefore, may reveal itself in increased demand for currency. The increment in currency is due to normal fundamental factors such as interest rate, income, inflation, and changes in technology, among others.

The results revealed a significantly large but fluctuating size of the underground economy. The highest proportion of the underground economy in Kenya was recorded in the 1990s when it averaged 20 per cent of GDP. The potential tax accruable from the underground economy averaged 4 per cent of GDP, thus the tax authority has the potential to expand the tax base by 4 per cent of GDP. For the year 2005, this would have raised tax collections by about Ksh 55 billion. The figure also reveals that the size of the underground economy has been increasing over the years, probably due to improved technology, more stringent regulations and burdensome taxation measures that force many hidden economic activities to emerge. Despite the growing size of the underground economy, the tax potential remains largely below 5 per cent of GDP.

It was also observed that the size of the underground economy has been rising with time as the economy improves, implying that some underground economic activities not only benefit from high economic growth but also contribute to improved economic performance. Knowledge of these results is important for designing policies whose impacts are not impeded by the size of the underground economy. However, of greater importance is the use of the knowledge to expand the tax base to include the sector to enable it bear its fiscal responsibility.

Conclusion

The study has established the existence of a sizeable underground economy in Kenya at about 20 per cent of GDP with a tax potential of about 4 per cent. It also reveals that the underground economy is large in Kenya just as in other developing countries. Besides, the sector seems to be growing with improvements in economic performance. This suggests that the tax authority has the potential to expand the tax base and increase revenue collection. This will have an additional benefit of making entrepreneurs take up their fiscal responsibility, contribute to the provision of public goods and services and enhance ownership of public programmes.

Policy Recommendations

1. Intensify tax reforms

The study reinforces the need to intensify implementation of on-going reforms in order to boost revenue generation from the underground economy. The reforms that need to be enhanced include:

- Efforts to bring more underground economic activities into the tax bracket, which started by netting the “Matatu” industry through the use of presumptive tax.
- Reduction of bureaucracy in business licensing through, for example, single business permits and “one-stop shops.” This would speed up formalization of activities that would end up in the underground economy and enable them take up their fiscal responsibility.

- Recognition of tax contributions by different levels and categories, such as top taxpayer, and latest entrant into tax brackets, among others. This would encourage others to follow suit and take up their fiscal responsibility.

2. Improve management of currency demand to avoid growing the underground economy

Excess currency demand is a reflection of a growing underground economy. Encouraging innovation in the financial sector through, for example, spread of credit cards, debit cards, more ATMs and financial institutions would discourage the desire to hold cash because of ease of access.

3. Improve data capture in national income accounting

Poor data capture places some economic activities unfairly in the underground economy, thus ballooning the size of the underground economy. Improved data capture will also lead to improved policy formulation because socio-economic indicators would be more reliable.

4. Further research and re-estimations

Additional work should be undertaken, through other methodologies, to estimate the size of the sector, but more importantly to determine the composition of legal and illegal activities so as to design appropriate measures to curb growth of the illegal components, such as money laundering, prostitution, counterfeiting, among others.

About KIPPRA Policy Briefs

KIPPRA Policy Briefs are aimed at a wide dissemination of the Institute’s policy research findings. The findings are expected to stimulate discussion and also build capacity of public policy makers in Kenya. KIPPRA acknowledges support from the Government of Kenya, the European Union (EU), the African Capacity Building Foundation (ACBF), and all other development partners who have supported the Institute’s activities.

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