Seventh IMF Statistical Forum

Measuring the Informal Economy

SESSION IIA. STANDARD ESTIMATION PRACTICES—DETERMINING THE LEVEL AND GROWTH OF THE INFORMAL ECONOMY

November 14, 2019

Chair: Ms. Sharmini Coorey (Institute for Capacity Development, IMF)

Presenters: Mr. François Roubaud (French Research Institute for Sustainable Development)
              Mr. Federico Sallusti (Italian National Institute of Statistics)
              Mr. S.V. Ramana Murthy (Central Statistics Office, India)

SUMMARY OF PRESENTATIONS

1.   *Measuring the Non-Observed Economy in Vietnam: A Focus on Informal Economy* (*François Roubaud* and *Nghiêm Thị Vân*)

The paper highlighted measurement differences between direct and indirect source data for the informal economy in Vietnam. The authors strongly believe in the primacy of survey data and espouse a '1-2-3' approach, combining results from establishment surveys, mixed household/business surveys, and augmented labor force surveys in order to get a comprehensive view of the non-observed economy. They note that national accounts estimates for Vietnam are around 50 percent lower than combined survey estimates.

The presenter argued there is more overlap between the formal economy and the illegal/underground economy, with the formal economy interacting largely within itself. This was supported by some international comparisons: household unincorporated enterprises tend to have around 1.5 staff, sell 70–80 percent of output to other households, and purchase around 70 percent of intermediate inputs from other households.

Some policy incentives and disincentives related to better measurement of informal activity were noted: any increases in total GDP levels may make them ineligible for international aid, though conversely, indicators of fiscal sustainability such as debt-to-GDP ratios may be improved.

2.   *Detecting Under-Reporting of Value Added and VAT Fraud in National Accounts* (*Federico Sallusti* and *Luciano Cavalli*)

The author described work to improve on the Franzi method of estimating value-added tax (VAT) under-reporting, which compares the income earned by entrepreneurs against that earned by the average employee (the opportunity cost). This method suffers from several drawbacks, in that it fails to account for effects from enterprise characteristics, particularly size, and business cycles.

The new 'ROC' approach relies on wealth of Italian enterprise microdata (around 2.7 million firms with under 100 staff) to compare the relative performance of businesses against temporal benchmarks, implicitly eliminating cyclical effects. The model is also robust to differences in enterprise size. Using composite indicators of profitability, costs and employment structures, and with information on the VAT base, the approach compares reported versus benchmark VAT estimates by industry, accounting for size and territory to estimate under-reporting, both for complicit (business-to-business) and non-complicit (business-to-customer) fraud.

The authors find that around 20 percent of Italian Gross Value Added (GVA) in 2017 was missing, with 55 percent of firms under-reporting. This was mainly due to fraud without complicity (80 percent of total fraud). By industry, wholesale and retail trade, hotels and restaurants, personal and business services, and construction are prominent in terms of prevalence of under-reporting and contribution to the total value of under-reporting.

3.   *Measuring Informal Economy in India* (*SV Ramana Murthy*)

The author summarized measurement approaches, issues, and characteristics of the informal economy in India, which accounts for half of total GDP, mainly in agriculture, construction and services.

A key development has been the use of an 'effective' labor input method, which models a production function with three labor components: owners, hired workers, and unpaid (household) helpers. This has helped to make estimates more accurate and comprehensive by giving value-added by effective worker. The method uses the number of jobs rather than headcount to account for workers with more than one job.

These estimates make use of enterprise surveys, and now annual employment and unemployment surveys that have been expanded to collect information on occupation, industry, type of enterprise, and principal and secondary respondent status (for example, a student who is also a part-time worker).

Due to the periodic nature of benchmark data and the necessary use of volume and price indicators to interpolate/extrapolate time series, a major (and international) challenge is modelling dynamics. These are proven to be imperfect as new benchmark estimates are made; the indicators lose their relevance over time as these are based on periodic benchmarks.

It was postulated that, in India, evading taxes may not be a primary motive, but more of an unavoidable choice for many unprofitable enterprises to remain in business

SUMMARY OF COMMENTS, QUESTIONS, AND ANSWERS

(i)   Regarding lecture one—you heavily use survey approach and think it is superior—I am not so convinced, as there can be a bias in responses due to mistargeting of the sample; and there are downsides to the costs of conducting such surveys. It is arguably more useful to combine surveys of people with surveys of firms, and administrative microdata.

François Roubaud responded that survey methods as described in Latin America are now considered routine, so there is good continuity. This is less the case where introduced in Sub-Saharan Africa, but the approach is used regularly. He added that if you have an augmented labor force survey to capture earnings of whole labor force, you have excellent data to estimate the dynamics between benchmarks. However, he conceded that estimating unobserved informal sector prices to value production remains a challenge.

(ii)   On lecture two—was your work used to adjust official estimates and what was the impact?

Federico Sallusti confirmed that the new ROC approach was being used in official GDP estimates and that they were now testing the impact with Eurostat versus the preceding method, and that there was not much difference between the methods so far. He further noted that for the last estimates of the underground economy in 2011 the new results are quite different by component but not in aggregate. Before, it had been assumed that there was a lot of underground activity in small enterprises, but that this now appears to be more spread out by size.

(iii)   To all three presenters—the IMF says global economy is gloomy, but your work suggests informal sector has high growth rates—what are the interlinkages?

François Roubaud noted that there are labor market linkages: households can be a mix of informal workers still claiming benefits, and formal workers. He also reminded the audience of his presentation, which illustrated how labor, intermediate consumption and final consumption relate not only to the informal but also formal sectors. Federico Sallusti noted the anti-cyclical connection between informal and formal sector activities, common to all countries.

(iv)   How does technology complicate or simplify your work?

SV Ramana Murthy responded that in India people can be biometrically identified for benefits payments, which reduces identification problems. In addition, India uses computer-assisted personal interviewing for socioeconomic surveys, so technology

helps collect and analyze data. <u>François Roubaud</u> noted that new technology may change the way we define the informal economy but cautioned that technology (e.g. internet access) is often not accessible in poor economies, so analysts need to be aware of assumption bias. He concurred with Mr. Murthy that technology is useful for capturing data but reiterated that it is not really changing the nature of informal production itself in developing world. <u>Federico Sallusti</u> noted that technology allows to process huge datasets, which sometimes have complete coverage, using microdata and estimation to form macro results. That way, technology is allowing us to exploit data more efficiently.