



## The Underground Economy

### Highlights

- “Underground” economic activity takes different forms and includes the production/provision of both legal and illegal goods and services. The underground economy (UE) is a concern for governments because it reduces the tax base and can weaken regulatory regimes intended to protect consumers, workers and the environment.
- Published global estimates suggest that the UE amounts to between and 8-30% of GDP among the advanced economies, with Canada closer to the lower end of the range.
- Estimates of the size of the UE produced by Canadian researchers vary widely, ranging from just 2.3% of GDP to over 15%, depending on the author, the definition, and the research methodology used.
- Studies from Statistics Canada over the past two decades find the UE equal to 2.3% to 5.2% of GDP. These studies do not capture many kinds of illegal transactions and also miss some legal but “hidden” activities involving households and unincorporated businesses.
- Based on broad definitions, the current size of the UE in Canada may fall in the range of 5-8% of GDP.
- We believe that unobserved, unreported and untaxed economic activity is more prevalent in British Columbia than in the country as a whole, for three main reasons. First, the private sector in BC is heavily weighted toward small unincorporated businesses and the self-employed, where underground activity is more common. Second, the construction industry – the industry that’s most prone to “hidden” activity – is proportionately larger in BC than in other provinces. Finally, BC has a large and thriving illegal drug industry that generates several billion dollars of cash-based transactions every year and serves to increase the size of the UE.
- Add it all up, and it would not be surprising if the overall UE in British Columbia is equivalent to 10% or more of the province’s reported GDP.

“Underground” economic activity is a concern for governments around the world. This is partly because “hidden” economic transactions mean forgone tax revenue, which creates a need to impose steeper taxes on households and businesses that operate “above-ground.” Underground activity can also impose costs if it is pursued as a way to bypass product or worker health and safety standards, or to avoid other

regulations intended to achieve valid public policy objectives. Empirical evidence suggests that a rising share of underground economic activity is also associated with higher levels of corruption and poorly functioning public sector institutions.<sup>1</sup>

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<sup>1</sup> F. Schneider and D. Enste, “Shadow Economies: Size, Causes and Consequences,” The Journal of Economic Literature, volume 38, number 1 (2000).

Estimating the size of the underground economy (UE) is complicated since such economic activity is difficult to see and hard to quantify. Economists, statisticians, and government agencies have used a variety of techniques to get a handle on the phenomenon. National statistical agencies work to ensure that thorough estimates of Gross Domestic Product (GDP) are produced in the national accounts. In doing so, they make an effort to account for certain “non-observed” transactions and to incorporate these into official measures of output (GDP). To assist statistical agencies and encourage consistency in the compilation of national accounts, in 2002 the Organization for Economic Cooperation and Development (OECD) released the Handbook for Measurement of the Non-observed Economy, which has become the most important international sourcebook in this area.

### Defining the Non-observed Economy

According to the OECD, five groups of activities comprise the “non-observed” economy.<sup>2</sup> They are:

- (1) the hidden sector, consisting of legal but unreported activity;
- (2) the illegal sector;
- (3) the informal sector;
- (4) household production for own final use; and,
- (5) other activities that are not captured due to deficiencies in official data collection programmes.

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<sup>2</sup> This discussion is mainly based on C. Morissette, “The Underground Economy in Canada, 1992-2011,” Statistics Canada, catalogue No. 13-604-M, 2014.

The *hidden sector* (or underground production) is defined as “those activities that are productive and legal but are deliberately concealed from public authorities,” usually to avoid payment of income, sales and payroll taxes. Transactions may also be hidden to enable the participants to ignore health standards, labour laws, or administrative procedures established by governments. Off-the-book construction work and unreported rental income are prominent examples of this kind of hidden sector activity.

The *illegal sector*, according to the OECD, consists of goods and services whose production, sale, distribution or even possession is forbidden by law. It also includes activities which are legal but become prohibited when carried out by unauthorized or unlicensed producers. Illegal transactions include the production and distribution of banned drugs, pornographic materials, prostitution (where it is illegal), unlicensed medical practices, unauthorized gambling, unlicensed production of alcohol, illegal fishing/poaching, the sale of counterfeit goods, the unauthorized reproduction of copy-righted materials, smuggling, and fencing, bribery, and money laundering. Of interest, some countries, such as the UK, are now looking to include more categories of illegal activity in their national accounts, which will have the effect of boosting their reported GDP.<sup>3</sup>

The *informal sector* describes market transactions involving individuals or entities that are not registered with the authorities and operate outside of the scope of official

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<sup>3</sup> C. Goodhart and J. Ashworth, “Trying to Glimpse the ‘Grey Economy’,” VOX.eu.org, October 8, 2014.

surveys and other data-collection systems (such as Statistics Canada's Business Register). Examples of informal activities that can be missed in estimates of GDP are the provision of child care services, a range of outsourced household services (e.g., home cleaning), other personal care services, and direct sales of agricultural products at road-side stands.

Production by *households for own final use* covers goods and services consumed by households that are also produced by the same households. All goods produced by households for own-use are theoretically included as part of the national accounts; however, in practice only food grown by farmers for own-consumption is counted as part of GDP in Canada. Statistics Canada does not attempt to capture services that are self-produced and consumed by households, such as cleaning and laundry.

*Deficiencies in the basic collection of data* refers to situations where, for various reasons, transactions are not adequately captured via standard data-collection techniques. This source of mis-measurement of official GDP is not considered to be significant in Canada.

### Global Estimates

There are different ways to measure hidden economic activity, and no single approach has been adopted by scholars or governmental bodies. Some researchers are primarily interested in the impact of underground activity on tax collections and tax evasion, while others want to know how much GDP is "missed" as a result of non-observed transactions. A paper published by the World Bank in 2010 provided estimates

of the size of the "shadow economy" for more than 150 countries.<sup>4</sup> The study focused on various monetary indicators (particularly the use of cash) as well as labour market indicators (e.g., participation in the formal work force) to help determine the extent of UE activity in the countries examined.

The estimates generated by the World Bank authors – for the year 2007 – were surprisingly large. For the advanced economies (US/Canada, Western Europe, Japan, and Australia/New Zealand), the shadow economy ranged from 8% of gross domestic product in Switzerland at the low end to almost 30% in Greece at the high end. Canada came out in the mid-teens, at 15.7% of GDP.<sup>5</sup> Developing countries have proportionately larger shadow economies than richer nations, in part because many people in poorer countries earn their livelihoods in "informal" labour markets and don't pay taxes on their incomes. The effectiveness of government tax collection and administration systems also affects the amount of unreported economic activity.

### The Underground Economy in Canada

A 2005 Canadian academic study estimated that the underground economy amounted to around 15% of GDP in 2001, which is similar to the figure in the World Bank's 2010 report.<sup>6</sup> It also found that the UE had expanded in size relative to measured GDP since the 1970s – that is, over time,

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<sup>4</sup> F. Schneider, A. Buehn, and C. E. Montenegro, "Shadow Economies All Over the World," [World Bank Policy Research Working Paper 5356](#), July 2010.

<sup>5</sup> *Ibid.*, p. 24, Table 3.3.4.

<sup>6</sup> L. Tedds, "The Underground Economy in Canada," in C. Bajada and F. Schneider, eds., [Size, Causes and Consequences of the Underground Economy: An International Perspective](#), 2005.

relatively more economic activity in Canada was being hidden from view and not captured by government statistical systems.

It should be noted that both the 2005 Canadian study and the World Bank's 2010 report yield estimates of the UE that differ materially from those produced by Statistics Canada, which finds much lower levels of non-observed economic activity. Over the past two decades, Statistics Canada's published studies have suggested that the UE is equivalent to somewhere between 2.3% and 5.2% of GDP.<sup>7</sup> Based on Canada's current nominal GDP, this amounts to \$45-100 billion, in very rough figures.<sup>8</sup> The agency's latest UE estimates are at the low end of the specified range. Statistics Canada's most recent work on the underground economy ignores most forms of illegal activity,<sup>9</sup> as well as household production for own-use; including all illegal activities and prohibited products/services would increase the size of the UE significantly.

One reason why some analysts report larger estimates for the UE in Canada (and other countries) than official statistical agencies do is that hidden transactions – for example, an

off-the-books home renovation project, or yard-work provided in exchange for a (non-reported) cash payment – are typically computed in simple dollar terms, whereas GDP is by design a value-added measure. To make the numerator and the denominator comparable, one would need to estimate the “value-added” component of the particular UE activity of interest (basically, this involves subtracting the cost of the “inputs” used to produce the UE good or service). In practice this isn't feasible. Thus, some attempts to determine the size of the UE yield estimates that arguably are too high when judged in relation to “official” GDP and how it is computed by statistical agencies.<sup>10</sup>

Statistics Canada takes a narrower view of the scope of the non-observed economy than many other authors as well as the above-noted OECD Handbook. Its studies restrict the definition of the underground economy to market-based productive activities carried out in a hidden manner, the informal sector, and a small part of overall illegal activity. The basic structure of Statistics Canada's analytical approach is depicted in Figure 1 below.

In its work on the UE, Statistics Canada makes a number of assumptions. Two important ones are:

- small businesses are more likely to participate in UE activities than large businesses; and,
- unincorporated businesses are more likely to engage in UE activities than incorporated companies.

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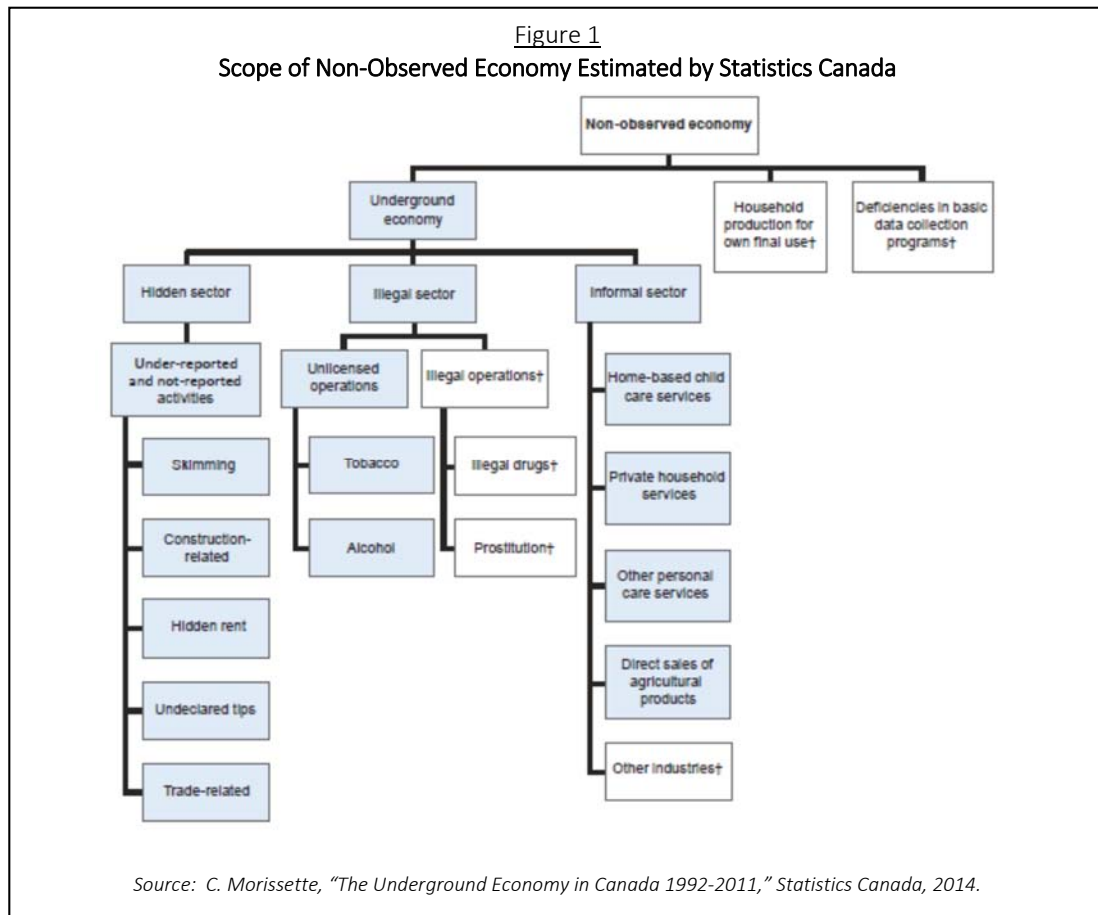
<sup>7</sup> C. Morissette, “The Underground Economy in Canada, 1992-2011,” Statistics Canada, catalogue No. 13-604-M, 2014. For earlier Statistics Canada work on the topic, see P. Smith, Assessing the Size of the Underground Economy: The Statistics Canada Perspective, Catalogue No. 13-604, 2006. Also see the discussion in P. Lemieux, The Underground Economy: Causes, Extent, Approaches, Montreal Economic Institute Research Papers, November 2007, pp. 13-15.

<sup>8</sup> As of the second quarter of 2014, Statistics Canada reported that the country's nominal GDP was 1.956 trillion.

<sup>9</sup> The 2014 Statistics Canada study does seek to measure alcohol and tobacco smuggling and the illegal sale of these products.

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<sup>10</sup> This point is discussed in the paper by Lemieux, *ibid.*



As discussed below, these assumptions are relevant when thinking about the underground economy in the context of British Columbia.

One benefit of the estimation techniques employed by Statistics Canada is that they allow for empirically founded “educated guesses” about the magnitude of (legal) underground activity in different sectors of the economy. Unsurprisingly, both the absolute and proportionate size of UE activity vary across industries. The largest amount of underground activity, in absolute terms, takes place in the construction sector, followed by retail trade and then finance and real estate (the latter is mainly

driven by undeclared rental income). In 2011, construction alone accounted for one-quarter of UE activity, using Statistics Canada’s definition of the term.

Turning to the incidence of underground activity across industries, for 2011 Statistics Canada found that food and accommodation had the largest share of hidden transactions (12.5%), followed by “other services” (which includes household services such as cleaning and yard work) and then fishing and hunting (a very tiny industry). Table 1 provides further details.

Table 1 Underground Economy Share of Total Industry Output*, Canada	
Industry	UE as % of Industry GDP
Accommodation and foodservices	12.1%
Other services	9.1%
Fishing, hunting, trapping	9.0%
Crop/animal production	8.6%
Construction	8.5%
Educational services	7.3%
Arts, entertainment, recreation	6.1%
Retail trade	6.1%
Health and social services	3.4%
Finance/real estate	2.8%
Professional/technical/scientific services	2.3%
Manufacturing	1.6%
Forestry and logging	1.4%
Transportation and wholesaling	1.2%
Information and cultural industries	0.6%
Wholesale trade	0.3%
Mining and oil and gas	0.1%
Utilities	0.0%
Government administration	0.0%
* Total GDP is equal to official GDP plus estimated underground activity GDP. Data are for 2009.	
Source: Statistics Canada.	

### The Case of British Columbia

If we include all types of illegal activity as well as the “informal sector” and what the OECD categorizes as household production for own use within the definition of the UE, then the resulting figure will be higher as a share of GDP than is suggested in the Statistics Canada studies noted above. On this more expansive definition, the total UE in Canada may amount to 5-9% of GDP.

As for British Columbia, there are reasons to believe that the UE is bigger here than it is in Canada as whole, when measured relative to GDP. The following factors support this contention:

- The BC economy is heavily skewed toward unincorporated small businesses, which are more prone to engage in hidden economic activity and to under-report incomes compared to medium-sized and large firms (and to incorporated businesses generally).
- BC has among the highest proportions of self-employed persons in the labour force in the country. High rates of self-employment are also correlated with greater underground economic activity.
- British Columbia has long had a substantial and thriving illegal drug industry, involving many billions of dollars per year in predominantly cash-based transactions. Not only is the province a major producer of a number of illegal substances (many of which are then exported), it is also a transshipment point for drugs that are shipped to/from other jurisdictions.
- Home-building and home renovation represents a larger slice of GDP in British Columbia than in other parts of the country. Given that construction accounts for a bigger fraction of total (non-illegal) UE activity than any other industry, it stands to reason that this source of unobserved economic activity plays a greater role in the BC economy.

Based on these considerations, we believe it is reasonable to posit that the underground economy in British Columbia is proportionately larger than in other provinces. Using a broad definition of the term (including both legal and illegal activity/production), it would not be surprising if all forms of UE activity, added together, were equivalent to 10% or more of the province's gross domestic product.

Underground economic transactions, both illegal and other, raise a number of issues that policy-makers must be attentive to. A large volume of hidden/non-observed economic activity means that households and businesses that operate entirely above-ground are required to pay higher taxes than would otherwise be the case. Businesses that comply with the tax laws and other rules established by governments can find themselves at a disadvantage when competing with suppliers who stay in the shadows. Worker and product safety can be compromised when the entities providing goods/services are not registered (and fail to report their incomes). The integrity and efficacy of the overall system of tax collection, administration and compliance may be put at risk to the extent that the UE is large and/or growing in size. A high incidence of illegal UE activity – ignored for the most part in Statistics Canada's work on the subject – gives rise to other concerns, including the potential for corruption of public officials and institutions as a result of the vast amounts of cash that are generated from the production, distribution and consumption of illegal products and services.

All of this suggests that governments in Canada would be well advised to:

- step up their efforts to analyze, understand and track the underground economy in all of its dimensions;
- strengthen compliance and enforcement programs in respect of the taxation rules, regulatory requirements and administrative procedures that above-ground business operators are expected to abide by;
- periodically review policies, regulations and institutions – such as high marginal effective tax rates on work or business activity – that may be serving to increase the incentives for illicit work and tax evasion; and,
- re-consider policies that may stimulate the development and growth of certain types of underground markets in the first place.

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