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## COMMENTS ON CANADA'S UNDERGROUND ECONOMY

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### 1. INTRODUCTION AND ESTIMATES

In the late 1970s Peter Gutmann and Edgar Feige shocked economists and others in the U.S. with the size of their estimates of the U.S. underground economy. The "underground economy", as measured by Gutmann and Feige, referred to economic activity which was not accounted for in the national income accounts, and which in large part escaped both direct and indirect taxation. It included both legal and illegal activity. Their measurements did not include do-it-yourself activities, or barter activities, where transactions involved neither cash nor cheques.

Rolf Mirus and I subsequently published a paper in *Canadian Public Policy* (1981) which, using methodologies developed by Gutmann, Feige, and also Vito Tanzi of the IMF, estimated the size of the Canadian underground economy in 1976 to be somewhere between 5 and 22 per cent of total economic activity. Our best guess was 10 to 12

per cent. In terms of present-day GDP this would be money income between \$75 and \$100 billion. Assuming this goes untaxed, with tax revenues now equal to more than 40 per cent of GDP, the revenue lost could be in the \$30 billion range.

The topic continued to be of much interest in Canada during the 1980s, but little additional work was done to refine these or other estimates. Statistics Canada, Revenue Canada, and the academic community have generally neglected the topic. The net result is that we don't know as much as we might wish to know. Lack of scientific information has led to unreasonable assertions in some cases. For example, one respected economist has claimed that

"The underground economy broadly defined might represent, in the most conservative estimates, approximately one third of measured GDP and in the

higher estimates as much as 100 per cent of measured GDP." (Paquet, 1989)

With limited other evidence available, the early estimates by Mirus and Smith continued to be the basis for speculation on the size of the Canadian underground economy. This, understandably, leads to the question of how applicable our earlier estimates for 1976 are to the situation today. What has happened since the late 1970s that would cause us to believe that the underground economy has either grown or shrunk in its importance?

Karoleff, Mirus, and I (1993) recently revisited the "monetary aggregates" approaches that we used for our 1976 estimates. This was with an awareness of the criticisms against methodologies that use the growth in the use of cash, and the unexplained changes in the level of transactions supported by cheques and cash, as a basis for estimating underground activity. (In fact, we confronted a new problem in that the Bank of Canada after 1984 turned over the responsibility for maintaining data on cheque clearing transactions to the Canadian Payments Association. These data were not maintained in a form that permitted us to extend our early work beyond 1984 using Feige's method, since it relies on estimates of transactions carried out by cheques and cash.)

Although we have limited confidence in the methodologies used for our estimates, no alternative seems to have a clear advantage, especially if you consider that simply asking people will not elicit truthful responses regarding their participation in unreported income-earning activities. The results of our up-dating of the 1976 estimates to 1990 were as follows.

**TABLE 1:**  
**Estimates of Canada's Underground Economy as a Percentage of Total Economic Activity**

Method	Previous Estimates	Current Estimates
Gutmann	14.0 (1976)	21.6 (1990)
Feige	21.9 (1976)	19.3 (1984)
Tanzi	4.8 - 7.2 (1976)	14.6 (1990)

In balance there seems to have been a significant increase in the size of the underground economy, and in its share of total economic activity from 1976 to 1990.

This result is consistent with estimates derived from recent IMF work as well. Looking at trends in real per capita currency balances, and trying to adjust for the impact of technologies such as ATMs, John Wilson found an "unexplained currency growth" in Canada between 1970 and 1990 of C\$4.7 billion. In Canada's case it is unlikely that the increase was due to a growth in holdings of Canadian currency in other countries. Using M1 velocity, \$4.7 billion would be enough to support more than 10 per cent of Canadian GDP. If underground activity accounted for 10 per cent of total activity in the base year, 1970, the unexplained currency growth since that year suggests that it may have risen to around 20 per cent. (Feige's (1993) most recent results are corroborative in the sense that they show that unreported income in the U.S. equalled from 15 to 20 per cent of reported income.)

The rest of my comments address three questions. First, what factors may have contributed to continued growth in underground activity after 1976? Second, what are some of the problems that accompany a large underground sector? And third, what measures might reduce the size of the underground sector?

## 2. FACTORS CONTRIBUTING TO UNDERGROUND GROWTH - 1976-90

Although we have yet to estimate equations that include all of the variables, we have identified factors which may have caused the underground economy to grow as a share of the total economy from 1976 to 1990 in Canada. The following factors are present.

- a. **Personal income taxes as a share of personal income net of transfers rose from 15.2 per cent in 1976 to 19.7 per cent in 1990.**
- b. **Direct and indirect taxes rose as a share of GDP from 38 per cent to 43 per cent from 1976 to 1990.**

The burden of both direct and indirect taxes continued to grow in Canada. This has been a time when attitudes toward government have been deteriorating, and when tax revenues as a share of GDP increased much more rapidly in Canada than in most other OECD countries (Italy was an exception).

- c. **Unemployment rates averaged 5.2 per cent for the ten years before 1976 and 9.3 per cent for the ten years following.** Those who are unemployed are in a position to increase their casual or informal activity, and may have an incentive to do so as they collect unemployment insurance. There is no certainty here, but there is some evidence that UIC and informal economic activity can become a way of life.
- d. **U. S. studies have shown that younger taxpayers are more likely to report non-compliance, and once on a track of non-compliance there is evidence that returning to the compliance track is not very likely.** If this is so, with the aging of the population, we would expect an increasing rate of non-compliance. This also means that while rate increases may push individuals underground, lowering rates may not bring them above ground.
- e. **The self employed in the incorporated and unincorporated sectors grew from 11.1 per cent in 1976 to 14.5 per cent in**

1991. The self employed in Canada grew by 71 per cent during this period while all other workers grew by 25 per cent. While the small business sector may be the engine of growth and highly flexible, it is also where much underground economic activity occurs. There is evidence that the self-employed are major contributors to underground activity.

- f. **The number of immigrants has increased in recent years, and business immigration has accounted for a growing share of immigrants in Canada.** The number of immigrants doubled from 1981 to 1992, and the number of business immigrants quadrupled. **Business immigration, which accounted for 5% of total immigration in 1981, rose to 11% of total immigration in 1992.**

Again from U.S. studies there is evidence that underground economic activity is present to a higher degree among recent immigrant communities, both because of their small business nature, and because of informal business relationships. Much of Canada's recent immigration is from entrepreneurial communities of Asia and the Middle East.

- g. **The 1987 study by the IMF on the World Currency Account Discrepancy found that "reported portfolio investment income is the fastest growing, and now the largest, of all individual current account discrepancies."** In other words, interest and dividends reported by companies as paid abroad are much larger than the amounts reported as income by the recipients of these payments. Debits exceeded credits by US\$33 billion in 1984. By 1991 this had risen to US\$90 billion. (To the extent that Canadians receive U.S. dividend and interest income which is deposited in U.S. banks, with these funds used for ongoing spending, our estimates using Canadian monetary aggregates will not even pick up the activity.) This is not a

strictly Canadian phenomenon, but Canada has participated in the tremendous growth in capital flows during the 1980s.

The large growth in capital flows since 1976 would be expected to have a major impact on the dividend and interest flows on equity and bond investments. This is likely to be an area of substantial underreporting, although we have little data for Canada.

- h. In January 1991 the Federal Government of Canada imposed a sizable sales tax on services as well as on manufactured goods. The result was an added incentive to underreport economic activity, particularly in service industries where much of the value added occurred in the final provision of the service.

On this point we may quote from an earlier study (Smith and Wied-Nebbeling, 1986) of Germany and Britain which found that higher taxes contribute to the underground activity

"..particularly when major changes were introduced, such as the imposition of valued added tax on services in the U.K. in 1973 and the replacement of the turnover tax by value added tax in Germany in 1968."

A similar effect may have been experienced in Canada. A recent study (Spiro, 1993) found a dramatic growth in cash holdings after the Goods and Services Tax (GST) was introduced in 1991, and that there is no other apparent explanation for the increase. The Revenue Minister has been rapidly adding GST auditors.

### 3. CONCERNS ACCOMPANYING UNDERGROUND ACTIVITY

There are many reasons why the size of the underground economy is important for economic policy purposes.

- a. Official economic indicators may provide inappropriate guidance to policy-makers when underground activity is large. One million jobs at \$50,000 per job are supported by \$50 billion in underground activity. Official unemployment statistics may be misleading, and corrective actions based on these statistics may be inappropriate. This is also true for measures of GDP growth which exclude underground activity where this activity varies as a share of GDP. Inflation measures will also be faulty, as one response to increasing prices in the regular economy is increased activity in the underground sector in order to escape the higher prices. Productivity measures may also be faulty for similar reasons.

Less comprehensive estimates of private saving also occur. Consider the case where a carpenter and electrician swap their services and each adds a major

addition to his or her home. The net worth of each has increased significantly without any addition to reported income.

- b. In some cases the underground economy may also alter the effectiveness of monetary policy. This may currently be more important for the U.S. and Germany than for Canada, but we must be aware of it. I refer to the fact that very large amounts of some currencies are used outside the home country. In the case of the U.S., one recent study (Feige, 1993) estimates that much of the failure of an expansionary U.S. monetary policy from 1990 to 1992 was due to the fact the money supply as normally measured did not consider the fact that a large share of the increased cash flowed out of the U.S. Failure to adjust for this phenomenon may have contributed to the defeat of President Bush in late 1992.
- c. Tax systems relying on self-assessment and a reasonable level of honesty are no longer viable if unreported income is a large share of total income. Italy has

recently imposed a tax on the presumptive income of small businesses because of the unreliability of income reporting by small businesses in that country (*The Economist*, October 9, 1993). Such a system may be unfair, but it may be fairer than a system which taxes some while others simply do not report income.

- d. Where the underground economy accounts for a large share of total economic activity, **the result is higher tax rates on reported income, lower revenues, and greater deficits.**
- e. **Tax systems will not be, and cannot be, perceived as fair where underground activity is sizable.** Neither horizontal nor vertical equity in the tax system can be achieved. Support for the public sector

will erode, and public services will be undersupplied. A shift to indirect taxes, and away from direct taxes, may occur (as in New Zealand), and redistributive goals that might best be achieved through direct taxes may be sacrificed.

Before moving to the next section, I must acknowledge some benefits associated with underground activity. Government regulations (such as minimum wages) as well as taxation are avoided, making this sector more flexible and better able to respond to rapidly changing market conditions than may be true for the regular economy. This may help to keep real unemployment lower than otherwise. Lower prices for goods and services may also have some positive distributional effects when they help those on low incomes.

#### 4. POSSIBLE CORRECTIVE ACTIONS

A further question is what actions might be taken by tax authorities to reduce underground economic activity. No single action is likely to markedly reduce the size of the underground economy but a series of actions might be helpful.

- a. **There is a strong case for broader tax bases and lower tax rates.** The tax reforms of the 1980s in Canada and elsewhere moved toward broader bases, lower rates, and diversified tax systems to reduce the incentives to underreport incomes. Nonetheless, the case remains as we continue to have significant deductions such as RRSP and RPP contributions in calculating taxable income and the exemption of food and other items in the application of federal and provincial sales taxes. There are reasons for these provisions, but they also result in higher tax rates, perceptions of unfairness and complexity, and a greater incentive to evade or avoid taxes.

- b. **We also must attempt to link taxes closely with benefits experienced by taxpayers.** Taxpayers are more likely to comply when they can readily identify the direct benefit to them of paying the tax (Alm et al, 1990, 1992). Here too we see efforts by central governments to down-load responsibilities in order to strengthen the tie between taxes and benefits. However, to the extent that our taxes support programs in areas of health, education, welfare and national defense, taxes paid, by their very nature, cannot be tied closely to direct benefits received.
- c. **There is much evidence that compliance, particularly for the small business sector, needs to be kept as simple as possible.** This is a major issue for the GST and is related in part to a narrower base for the tax - a base which excludes some items and includes others. This issue is even greater in provinces which have maintained an RST base that differs from that of the GST (see Sandford, et al, 1989).

- d. There is an argument for tougher enforcement, but careful thought continues to be needed in this area. If tougher enforcement encourages either
- more non taxable activity such as do-it-yourself, or
  - non-filing as a means avoiding audit, it may be counterproductive. We need more information on those taxpayers least likely to pay their taxes by type of small business, sex, age, marital status, and so forth. Tax authorities must make good use of such information.

Tougher enforcement seems to be part of where Canada is going. The number of income tax auditors employed by Revenue Canada rose from 331 in 1992 to 755 in 1993, and the number of GST auditors has increased rapidly. A further word of caution is required here. Studies in the Netherlands have found little agreement among taxpayers and tax inspectors concerning who is and who is not cheating (Kinsey, 1987). Many of those who know they are cheating are not found to be, and many who truly believe they are being honest are found to be cheating. This does little to enhance the view that the tax system is fair.

The "presumptive" income tax in Italy has already been mentioned as an enforcement

measure. An additional measure is found in Germany where both the purchaser and the seller of the underground good or service may be prosecuted for breaking the law.

- e. There is a growing need for greater international cooperation in tax enforcement. Germany, for example, repealed a withholding tax on interest income because it would lead to a large flow of funds to Luxembourg. Similarly, Canadians derive growing amounts of investment income from foreign holdings. Revenue Canada cannot keep track of the investments held by Canadians in the U.S. or other countries. We cannot expect small businesses in the service and other sectors to respect the tax system if they perceive that large amounts of investment income escape taxation.

The conclusion is that a problem that was already large by 1976, the time of our first estimates, may have grown considerably in absolute size and relative to total economic activity over the past 13 years. There is good reason to devote some resources to the task of obtaining a better understanding of the role of the underground economy in Canada, of factors contributing to its growth, in order to find ways to reduce its size.

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