WHAT INTERNATIONAL EXPERIENCE CAN TELL US ABOUT THE POTENTIAL CHALLENGES OF ADMINISTERING A U.S. VAT

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Much has been written about the possible design of a U.S. VAT. There is less literature discussing the types of compliance issues that the U.S. tax authorities might face if a federal VAT were adopted — in other words, the most common patterns of VAT noncompliance, strategies that tax authorities are implementing to address noncompliance, and the measurement of noncompliance — in the context of advanced industrialized countries. This paper expands on the existing literature by discussing the recent experience of Australia, Canada, New Zealand, and the United Kingdom with ensuring VAT compliance. It also discusses the context for VAT introduction and recent trends.

Keywords: taxation, value-added tax, tax compliance, tax evasion

JEL Codes: H20, H25, H26

INTRODUCTION

One policy alternative that has been discussed in the context of deficit reduction proposals in the United States has been the introduction of a federal value-added tax (VAT).1 While much has been written about the possible design of a U.S. VAT,2 there is less literature that discusses the types of compliance issues that the U.S. tax authorities might face with the adoption of a federal VAT — in other words, the most common patterns of VAT noncompliance, the strategies that tax authorities are implementing to address noncompliance, and the measurement of noncompliance — in the context of

1 This alternative is discussed in Bipartisan Policy Center Debt Reduction Task Force (2010), co-chaired by former Senate Budget Committee Chairman Pete Domenici and former White House Budget Director Alice Rivlin, and in President’s Advisory Panel on Federal Tax Reform (2005).

2 For example, a few studies that have focused on the potential design of a U.S. VAT include Schenk and Oldman (2007), Graetz (2008), Gendron (2010), and Grinberg (2010).
the advanced industrialized countries. This paper expands on the existing literature by discussing the recent experience of four countries — Australia, Canada, New Zealand, and the United Kingdom — with ensuring VAT compliance. It discusses the strategies that country tax administrations are following to promote voluntary compliance, to identify and combat noncompliance, and to ensure that the VAT yields the highest revenue with the lowest possible costs to taxpayers and to the government.

The paper is based primarily on survey responses by senior tax administrators. It also reflects official documents that each country’s tax department has issued in recent years on VAT performance, compliance trends, and the effectiveness of administration.

Section I provides a brief overview of the fiscal and tax policy context for VAT introduction in the countries studied and reviews specific aspects of VAT performance. The subsequent sections address the following questions: (1) What are the major patterns of VAT noncompliance? (Section II); (2) What strategies are tax authorities following to prevent and to combat these? (Section III); (3) Does the VAT registration threshold pose particular risks? (Section IV); and (4) How do the tax authorities measure VAT noncompliance? (Section V). Conclusions are offered in Section VI.

I. WHAT WAS THE FISCAL AND TAX POLICY CONTEXT OF VAT INTRODUCTION?

Given some of the tax reform issues currently being discussed in the United States, we now briefly discuss the fiscal and tax policy context in which the VATs were introduced in the countries discussed in this paper.

A. The VAT as an Improvement over Earlier Inefficient Turnover Taxes

In the four countries studied, VATs (which in some countries are also referred to as Goods and Services Taxes, or GST) replaced previously existing federal turnover taxes that had long been in existence, but that were considered to be inefficient, limited in their revenue raising capacity, increasingly burdensome for business, and difficult to administer. When the Australian GST was introduced in 2000, it replaced the federal wholesale sales tax and a range of inefficient state taxes. In the case of Canada, the GST replaced a Manufacturer’s Sales Tax (MST). New Zealand’s GST replaced a wholesale sales tax at the federal level that had 19 rates (seven ad valorem and 12 specific rates) and numerous exemptions. The UK VAT was introduced in 1974 as a replacement tax.
for the Purchase Tax, a complicated, multi-stage sales tax. The Purchase Tax was levied at different rates depending on the extent to which an item was perceived to be a “luxury good.” In the case of the UK, introduction of a VAT was also a prerequisite for entry into the European Community. In none of the four countries did the VAT/GST entirely replace the income tax system.

B. VAT as Part of a Broader Reform of the Tax System

In several countries, the VAT was introduced as part of a broader tax system reform that included lowering income tax rates and broadening the income tax base. Once the VAT/GST was introduced, it was generally followed by declines in personal and corporate income tax rates. Figure 1 shows the changes in the VAT/GST rate, the corporate income tax rate, and the maximum personal income tax rate for the four countries. Another goal of VAT introduction was to shift the burden of taxation away from income taxes towards more neutral consumption taxes. In three of the countries studied, a visible trend is one of declining personal income tax revenues to GDP, as VAT/GST revenues to GDP increase and then stabilize (Figure 2). In New Zealand and the UK, VAT/GST revenues increase to levels that remain consistently above corporate income tax revenues as a percent of GDP.

In Australia, GST introduction was accompanied by an immediate lowering of individual income tax rates (except for the top marginal rate) and the corporate income tax rate. Adjustments were also made to excise taxes and to some specific indirect taxes to compensate for the elimination of the wholesale sales tax and the imposition of the GST.

In Canada, the government originally proposed replacing the MST with the GST as part of a comprehensive reform of federal income and sales taxes. The main elements of the reform were to be implemented in two stages: (1) a lowering of personal income tax rates (the top marginal rate fell from 34 percent to 29 percent) and a broadening of the income tax base, along with a lowering of the statutory corporate income tax rate (from 36 percent to 28 percent) and broadening the corporate income base starting in 1988 (Figure 1), and (2) reform of the national sales tax. In the end, income tax reform was introduced three years before the sales tax reform, which some observers consider to be one reason why the consumption tax reform proved to be so unpopular.

In New Zealand, the GST was introduced in 1986 as part of an overall tax reform that addressed what the authorities characterized at the time as “a tax system in disarray.” At the same time as the GST was introduced, a number of personal income tax

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6 Historical data on rates of corporate income tax, personal income tax, and VAT in the four countries covered in this study are available from the author upon request.
7 This is discussed in Department of Finance, Canada (1987).
8 A more detailed discussion of the history of the Canadian GST can be found in Bird and Gendron (2010).
9 More details on the history of the introduction of GST in New Zealand are provided in McLeod et al. (2001). The report, by an expert working group reporting to the Ministers of Finance and Economic Development, is a comprehensive review of the tax system. Introduction of the GST is also discussed in New Zealand Treasury (1982).
Figure 1
Rates of VAT/GST, Corporate Income Tax, and Maximum Personal Income Tax, from the Date of VAT/GST Introduction to 2010

Sources: Official country statistics, and data available from the author upon request.
Figure 2
VAT/GST, Corporate Income Tax, and Personal Income Tax Revenues as a Percentage of GDP, from the Date of VAT/GST Introduction to 2010

Sources: Official country statistics, and data available from the author upon request.
concessions were eliminated, personal income tax rates were lowered (Figure 1), and the corporate income tax base was broadened. These reforms shifted the composition of revenues from a previous heavy reliance on income taxes to consumption taxes. In 2010, the authorities raised the GST rate from 12.5 percent to 15 percent. To offset the increased cost to consumers from this increase, personal income tax rates were reduced, with the top rate falling from 38 percent to 33 percent.

C. VAT as a Response to Large Fiscal Deficits

In Canada, a burgeoning federal government deficit was a critical factor leading to the introduction of the GST. When a new government took office in 1984, the federal deficit was nearly 9 percent of GDP. By 1991–1992, it had fallen to 4.7 percent of GDP. The need for additional government revenues to close the fiscal gap, and government and business backing for adoption of a consumption tax less distortionary than the Manufacturer’s Sales Tax, brought about a major change in Canadian tax policy (with a VAT, businesses can obtain relief for taxes paid on inputs, which was not the case with the MST). The GST was introduced in 1991.

At the same time, as Figure 3 shows, in three out of the four country cases analyzed, the average annual change in federal tax revenues relative to GDP from the time of enactment to 2010 has been negative: –1.7 percent in Australia, –0.5 percent in Canada, and –0.6 percent in New Zealand. In the UK, the average annual change in this ratio was 0.2 percent from 1974–2010. Thus, introduction of a VAT/GST has not been associated with a significant, sustained increase in federal government tax revenues over time.

The variability of VAT/GST revenues (measured as the standard deviation of annual revenue collections/GDP for most of the period in which the VAT/GST has been in force) has been lower than the variability of income tax revenues for all countries (Table 1). This suggests that because VAT/GST collections reflect movements in the consumption tax base (as opposed to changes in the income tax base with its multiple credits and deductions), revenue performance from value-added taxes tend to follow general macroeconomic trends more closely than the personal and corporate income taxes.

D. VAT as a More Stable Source of Revenue for Sub-National Governments and as a Way to Improve the Design and Administration of Local Consumption Taxes

The new VATs have also brought about changes in federal-state tax relations and in the design of state or provincial level consumption tax systems. In Australia, the states’ previous reliance on general assistance grants from the federal government was

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10 This decrease can be observed in Department of Finance Canada (2010). Table 2: Fiscal Transactions (percent of GDP).

11 Data after 2008 were excluded because the negative impact of the international financial crisis on revenue collections skews the results.
replaced by a more stable source of revenue in the form of GST transfers to the states and territories. In Canada, the federal GST has brought about a number of changes in the design of provincial sales tax regimes. Some provinces (Québec, New Brunswick, Nova Scotia, Newfoundland, Labrador, and Ontario) have replaced their provincial retail sales tax with a VAT and have moved to harmonize the provincial tax base with the federal base (the tax is thus known as the harmonized sales tax (HST)). Some provinces have retained their previous retail sales taxes, and a few have no sales tax at all.

II. WHAT ARE THE MAJOR PATTERNS OF VAT NONCOMPLIANCE?

With this background, we now turn to more specific issues relating to the operation of the VAT/GST and the challenges it has posed for the tax administrations in the
four countries. A common challenge in all countries that have adopted a VAT is the administration of VAT refunds. Timely refunding of excess VAT credits is crucial for a well-functioning input-credit, destination-based VAT. But, as discussed below (Box 1), the risks inherent in refunding large amounts of tax on a frequent basis is one of the Achilles’ heels of the VAT. We now turn to a more detailed description of specific noncompliance behaviors for the different taxpayer segments, from the perspective of each country’s tax administration.

**A. Major Types of VAT Noncompliance**

1. **Australia**

   The senior staff of the Australian Tax Office (ATO) described the following as being the most common types of GST noncompliance for the three main taxpayers segments. **Large corporations.** For this segment, there are major risks associated with attempts to take advantage of two principal areas of concessional treatment in the GST system: property sales and financial services.13

<table>
<thead>
<tr>
<th>Country</th>
<th>Years</th>
<th>VAT/GST</th>
<th>Personal Income Tax</th>
<th>Corporate Income Tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>2000–2008</td>
<td>0.17</td>
<td>0.30</td>
<td>0.58</td>
</tr>
<tr>
<td>Canada</td>
<td>1991–2008</td>
<td>0.12</td>
<td>0.45</td>
<td>0.51</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1989–2008</td>
<td>0.51</td>
<td>1.29</td>
<td>1.23</td>
</tr>
<tr>
<td>UK</td>
<td>1980–2008</td>
<td>0.57</td>
<td>0.62</td>
<td>0.60</td>
</tr>
</tbody>
</table>

Sources: Official country statistics, data available from the author upon request.

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12 A related risk that is typical of an input-credit VAT is that taxpayers will reduce their liabilities by overstating their VAT input credits. They may not claim a refund for these credits and thus remain unnoticed by the tax authority’s refund risk detection systems, all the while reducing their VAT liabilities by overstating input credits.

13 The GST applies to most types of property transactions. However, there is differential GST treatment depending on whether the property is private residential, commercial residential, commercial, or farm. In the case of financial supplies, some supplies (sales) are subject to a reduced GST input tax credit, while others are not. The reduced input tax credit was introduced to address the potential bias to in-source particular services. A detailed explanation of the Australian GST treatment of financial services can be found at http://www.treasury.gov.au/documents/693/PDF/gst.pdf.
Combating VAT Refund Fraud

A major challenge in administering a VAT is the administration of refund claims. In most VAT systems, the largest proportion of such claims arises from VAT zero-rating of exports. For a VAT to achieve the neutrality and efficiency that are the hallmarks of its design, and in order to tax consumption and not savings or investment, net VAT credits must be refunded promptly to taxpayers. Most countries’ legislation establishes statutory time limits for paying out refunds that range from 30–60 days. The government must pay interest on late payments. However, the prompt issuance of refunds must be weighed against the risk of approving false refund claims that may have major negative consequences for VAT revenues. In most countries with a VAT, refunds are a substantial proportion of gross VAT collections. In an IMF paper that reviews VAT refund administration in 36 countries, Harrison and Krelove (2005) observe that the ratio of VAT refunds to gross VAT collections averages 30 percent or more in half the regions surveyed (as shown in the table below). In some countries (e.g., Singapore, Slovakia, and Canada), refund levels exceed 50 percent, while in others (e.g., Sweden, Netherlands, Russia, the UK, Hungary, and South Africa) they reach levels of at least 40 percent.

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Average 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>50.3</td>
</tr>
<tr>
<td>EU</td>
<td>38.1</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>36.8</td>
</tr>
<tr>
<td>New Zealand</td>
<td>35.5</td>
</tr>
<tr>
<td>Countries of the Former Soviet Union</td>
<td>29.6</td>
</tr>
<tr>
<td>Latin America</td>
<td>17.4</td>
</tr>
<tr>
<td>Middle East</td>
<td>16.2</td>
</tr>
<tr>
<td>Asia (not including Singapore)</td>
<td>7.0</td>
</tr>
<tr>
<td>Africa (not including South Africa)</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Source: Harrison and Krelove (2005)

1 The reported values reflect the average refund level over the 4-year period 1998–2001.

As with all types of evasion, there is no magic bullet that will reduce the incidence of VAT refund fraud. The countries that have managed to prevent or reduce the losses from this type of fraud have taken a multi-faceted approach based on (1) measuring the size of losses; (2) information gathering, intelligence work, and the application of risk assessment techniques; (3) executing a well-designed audit program; and (4) strengthening the tax authority’s legal and administrative enforcement powers.
The other major risk in relation to large companies is inadvertent errors in the calculation of their GST liability as a result of a breakdown in systems and procedures — referred to as the integrity of business systems’ risk. Taxpayers inadvertently underpay GST or over claim input tax credits due to a breakdown in part of their processes or systems that generate the data that determines their GST liabilities each month. Such breakdowns may be due to human error or failures in automated systems or procedures.

A recent significant risk has to do with the attempt to identify and exploit opportunities for “windfall gains” through seeking refunds of GST that has been previously paid without having to repay the corresponding tax credit already claimed. The Australian GST system is generally designed to maintain symmetry between GST payable by registered suppliers and registered buyers: GST that is payable by a registered supplier can be claimed as a credit by the registered buyer. However, at the time the GST was introduced, advisors identified potential loopholes in the law whereby large taxpayers could legitimately obtain a refund of GST that was genuinely overpaid on supplies that were incorrectly treated as taxable. The Tax Office was unable to recover the corresponding input tax credit from the buyer because the statutory time limit for doing so expired. The administrative aspects of Australian law have now been corrected, but not before significant refunds were claimed.

Medium-size taxpayers. As with large corporations, for medium size businesses there is also a major risk associated with attempts by taxpayers to take advantage of the concessional treatment of property transactions and financial supplies. Property development represents a significant risk because of the nature of how these industries operate. Many individual property developments are undertaken by entities that are created for that specific purpose. In the early stages of such a project, these entities can legitimately claim significant input tax refunds for expenses that they incur, but they then often fail to fully account for GST on the sale of the development. Once the sale is completed, the entity ceases to function and divests itself of all assets, making recovery of underpaid GST difficult.

There are also risks associated with the “integrity of business systems” for medium-size taxpayers. However, as businesses become smaller, the principal nature of this risk is the lack of adequate record-keeping rather than the failure of automated systems or business processes. Refund fraud and incorrect refund claims are an important risk in this segment.

Micro taxpayers (but still above the registration threshold). The major risks for small taxpayers are refund fraud, incorrect refund claims due to error or ignorance of the law, and failure to account for all their transactions (sales suppression). The latter is prevalent in the cash economy, especially in the construction and restaurant industries.

2. Canada

Officials of Canada’s Revenue Agency highlighted the following patterns of GST noncompliance by business size.
Large corporations (economic activity over CAD 250 million). Three risk areas were identified for the largest taxpayers. The first was related to the erroneous classification of transactions as zero-rated or exempt. There are cases when the GST is not charged or collected on the sale of goods and services (i.e., it is treated as subject to a zero-rate GST) when it should be. In other cases, the GST is not charged or collected on the sale of a good or service that was originally treated as exempt, but has subsequently become taxable. A second set of risks involves specific sectors, such as the provision of financial services and the treatment of international transactions. A third type of risk involves accounting and reporting. This includes problems with accounting reconciliation when there are return filing and payment errors, or when taxpayers elect the wrong GST/HST reporting period. For example, a GST/HST registrant may have elected a reporting period that could make certain transactions not subject to the GST/HST. If that election turns out to be invalid, the CRA can assess the GST/HST registrant for uncollected tax with respect to those transactions. Finally, the CRA may deny a taxpayer’s input GST credit claim because it lacks the necessary documentation.

Medium-size and smaller businesses (economic activity between CAD 2 million to CAD 250 million). The noncompliance patterns that the CRA highlights for small and medium-size businesses mirror some of those for the large taxpayers, but also indicate that the risks of intentional evasion and fraud are higher. One risk is the GST treatment of sales of financial services and property transactions. In the latter case, taxpayers fail to self-assess GST on real property transactions, or incorrectly assess the property’s fair market value. Abuse of the GST mechanism (i.e., calculating GST owed based on purchase and sales transactions, claiming GST input credits and refunds) is more prevalent. This includes false or erroneous GST refund claims, failure to report or underreporting of taxable sales or GST/HST, and overstatement of input tax credits, for example, by claiming GST paid as a business instead of a personal expense. Special GST evasion schemes may include zapper schemes (where the volume and value of sales that are registered on cash registers are altered electronically and remotely), the issuance of fake GST invoices, false reporting of the place of supply (sale), and misreporting of the mix of sales of goods and services between taxable and zero-rated.

Micro businesses (economic activity less than CAD 2 million, but still above the registration threshold). Smaller businesses are subject to some of the same risks as those mentioned above for the large and medium-size businesses. These include noncompliance related to property transactions, to the operation of the “basic” GST mechanism (i.e., unreported or underreported sales or GST/HST and incorrect or false GST refund claims), and outright evasion such as the use of the zapper and the issuance of fake invoices. Not surprisingly, more basic types of noncompliance can be observed among

14 “Economic activity” is a slightly modified version of gross revenue for both for-profit and not-for-profit entities.

15 A more detailed description of how zapper schemes work is provided by Ainsworth (2010).
this taxpayer segment, including failure to file GST returns and repeated nonpayment of GST debts.

3. New Zealand

We now turn to recent compliance issues that New Zealand’s tax authorities have faced, starting with large taxpayers. In discussing the various patterns of noncompliance, Inland Revenue (IR) officials differentiate “technical noncompliance,” i.e., taxpayers’ failure to comply based on misunderstanding of the law or administrative requirements, from “serious noncompliance,” i.e., deliberate misrepresentation of the underlying commercial activity or misreporting of information with the intent to evade tax.

**Large taxpayers:** The main problem areas that IR identified as a result of recent audit activity are invalid tax invoices, incorrect time of supply on property transactions, and the use of accounting periods that have not been approved by the tax authorities. Other compliance risks include deferral of the time of supply (time of sale), mortgage sales, joint ventures, and the sale and apportionment of exempt supplies (i.e., the attribution of sales between GST-exempt and non-GST-exempt goods or services). Recently, some GST compliance issues have arisen in relation to zero-rating rules and time of supply rules.

**Medium size taxpayers:** In the case of medium-size taxpayers, IR officials indicated that GST noncompliance is primarily attributable to technical noncompliance. An example is when a purchaser claims an input before the purchase/sale transaction takes place or before the goods or services are delivered, or when taxpayers who have registered as using cash-based accounting claim a full supply (purchase) when they have paid only a deposit (according to cash-based accounting rules, full payment would be required in order to claim GST input tax on that amount). Similar types of issues arise on the vendor side.

Another type of technical noncompliance is errors relating to high value, one-time transactions, especially regarding property. Errors generally arise due to incorrect application of “time of supply,” “value of supply,” or “zero rating rules,” with “time of supply” errors being the most common.

Firms in this segment also face compliance issues that relate to the way particular industries are structured, and to how they interpret the tax law. For example, the inbound tour operators’ industry adopted a standard where the overseas sale of tour packages to New Zealand is GST exempt. While many service exporters are subject to GST zero-rating (which is the traditional treatment of exports under a VAT), the complexity of inbound tour operators’ operations is such that the tax authorities concluded they qualified for GST relief.

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16 Real estate property transactions are considered to be high risk, both because of the issue of the timing of sale, and because the associated VAT/GST is a one-time, high value payment. Property purchasers who are registered for tax can claim large VAT/GST input credits or refunds from the tax authorities in the same tax period as the payment was made, with the associated risks of misreporting and refund fraud, but on a greater scale because of the amounts involved.

There are also patterns of serious noncompliance. These include the so-called “phoenix” scheme, where a high value asset (generally property) is repeatedly sold between entities (which may technically be unassociated). Purchasing entities claim GST refund credits, but the sellers involved in the transaction do not pay the corresponding GST due. Variations on this scheme are similar to the UK experience with missing trader or VAT carousel fraud. These are discussed in next section.

A more common type of serious noncompliance involves hidden economy activity. Here, businesses manipulate records in order to understate sales for GST (and income tax) purposes. This risk is higher in some industries, such as hospitality, undeclared offshore income (including the international security industry), and organized crime. Such risks are brought to the attention of the taxpaying community in a special Inland Revenue annual report that identifies specific compliance issues that the tax authorities will focus on during the year.18

A final risk is the overstatement of GST-related expenses by businesses that claim private expenditures as business spending. IR officials mentioned that such noncompliance is prevalent, but the related tax value is low compared to other types of noncompliance.

**Smaller taxpayers (but still above the registration threshold).** Smaller taxpayers also exhibit several typical “technical noncompliance” behaviors. IR officials commented that because businesses in this group generally prepare their own GST returns, two common problems arise. The first is poor systems and processes that result in a high likelihood of errors, either in the form of understated income or overstated expenses. Small businesses often fail to keep the purchase and sales tax invoices that are needed to meet record keeping requirements.

Poor knowledge of the GST law is also commonplace, resulting in errors relating to “time of supply,” “exempt supply,” and “zero-rated supply.” Smaller taxpayers may register voluntarily for the GST even though they are not conducting a taxable activity. This may be for various reasons: there was a genuine intention to start a business activity but this never happened, the business registered for GST based on other taxpayers’ advice, or there were perceived benefits of being in the system.19

Serious noncompliance among smaller businesses starts with fraudulent registrations for the sole purpose of committing revenue fraud. According to IR officials, such fraud generally takes two forms. The first is low value, high frequency fraud: taxpayers seek to obtain regular refunds that are small enough that they remain under the tax administration’s radar screen. However, this risk has been mitigated with the implementation of a new sophisticated compliance modeling tool. Low value, monthly return filers are a clear red flag for fraud. A rare variation of this scheme is an organized revenue attack where a highly coordinated approach is used to obtain large volumes of low value refunds on a monthly basis. The second type of fraud is a high value, one-time event, based on

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18 These are highlighted, for example, in New Zealand Inland Revenue (2011).
19 This is particularly common among small landholders operating as “farms” and holiday accommodations that are registered as short term “commercial accommodation.” In these types of activities, operating costs often exceed income, so that the main perceived advantage of registering for the GST is that the tax on purchases is refunded up front.
one large GST refund claim. As with medium size businesses, hidden economy activity is a common source of serious noncompliance. The fraudulent use of documents and associated “sham” activities involving identity fraud also occur.

4. United Kingdom

The main compliance problems in the UK — and principal factors that contribute to the UK tax gap — are evasion, avoidance, erroneous legal interpretation by taxpayers, and failure to take reasonable care in the preparation of returns, refund claims, and related documents. Other problems include error, non-payment, and the hidden economy. These problems occur to a lesser or greater extent in each of the three categories of taxpayers: large corporations, medium size taxpayers, and smaller businesses.

Starting in the early 2000’s, the UK VAT system has been subject to a virulent type of VAT refund fraud that is perpetrated by criminals outside of the normal taxpayer community. This type of fraud, which can be potentially very large, is primarily a phenomenon that has been experienced by the EU countries, where customs controls of VAT payment on imports were eliminated with the shift to a borderless common market. This “missing trader” scheme is described below in detail.

**Missing trader intra-EU Community fraud (MITC).** Typically, individuals intent on committing this type of fraud register for the VAT in an EU country (e.g., the UK), purchase goods VAT-free from another EU member state, sell those goods at VAT inclusive prices for domestic market consumption (in the UK), and then cease operations after a period of intense trading and disappear without paying the VAT due — hence the reference to the “missing trader.”

A more common and lucrative example of this type of non-compliance is carousel fraud where, instead of being sold for consumption on the (UK) domestic market, goods are sold through a series of contrived transactions before being sold to a trader in another EU member state, who then sells the goods back to the UK. This allows the criminals to carry out the fraud repeatedly using the same goods, which has resulted in massive false VAT refund claims and massive VAT fraud in several EU countries.

The particular threat that MTIC fraud poses to the VAT is not just one of size, but its potential for explosive, unconstrained growth. The organized attacks that the UK has faced over the last decade have been characterized by rapid, exponential growth. These were especially worrying when located in the derivatives markets, where they can grow rapidly via computerized transactions and are masked by the huge volume of routine transactions around them.

### III. WHAT STRATEGIES ARE TAX AUTHORITIES FOLLOWING TO PROMOTE VOLUNTARY COMPLIANCE AND TO COMBAT NONCOMPLIANCE?

The main characteristics of the strategies that more advanced tax administrations — including those reviewed in this paper — have adopted to combat the types of non-
compliance described previously are well summarized in a series of OECD papers. There has been less emphasis perhaps in the literature, on the investment tax administrations in advanced countries are making in an effort to increase voluntary compliance levels. Tax officials in the countries studied emphasized that they attempt to create an environment that is conducive to voluntary compliance. They do this by conscientiously seeking to establish and maintain close relationships with organizations that represent taxpayers and industries. They promote the idea that the tax system is jointly owned, and that there ought to be a widespread interest in having it run transparently and with open dialogue between tax administrators and the taxpaying community.

Reflecting these tendencies, the main features of the VAT compliance strategies in the four countries can be described as follows:

- Incorporation of proactive education and communication programs in the overall compliance strategy, with a view to preventing errors and deterring future evasion.
- A focus on effecting behavioral changes across broader (but targeted) population groups through greater reliance on cooperative relationships with third parties, including tax practitioners, industry representatives, and broader inter-agency cooperation.
- Increased use of external information and data-matching to identify risks and define target populations, in order to develop a better understanding of taxpayer behavior and design appropriate strategies.
- Reliance on a more “strategic approach” to managing the risks of noncompliance. This includes: increased attention to the development and use of top-down measures of the major types of noncompliance risks (including the “VAT gap” measure), significantly increased use of better computerized tools to detect compliance risks and assess their potential magnitude, and more systemic approaches to address different types of risks of noncompliance.
- The use of random audits for risk profiling and overall compliance monitoring.
- A tendency to detect and treat risks on a “whole of client” basis, as opposed to a “tax by tax” approach. This is evident in the design of more integrated computerized information systems (across functions) and the way in which work processes (e.g., audit/verification) are being conducted (e.g., with audits increasingly conducted simultaneously for several major taxes). This is also evident in the design of differentiated compliance strategies for different types of taxpayers (e.g., large/international businesses, medium-size businesses, smaller businesses and sole proprietors, individuals, etc.), recognizing that these segments represent different types of risks and have different types of administrative and service requirements.

20 These papers include OECD (2005) and OECD (2009).
• The adoption of more systematic and specialized risk-based processes for validating the integrity of VAT registrations. This includes the systematic use of internal and external data sources to identify businesses that should be, but are not, registered for the VAT.

• Reliance on case-based risk profiling systems, recognizing that these require close monitoring and regular updating to take account of changing patterns of compliance behaviors. For example, the tax administrations of the four countries reviewed here have all developed risk-based models to process VAT refund claims.

• Given a number of “hard to treat” compliance risks (e.g., in the finance and real estate sectors), the modification of the tax and tax procedures laws. In some cases this involves strengthening sanctions and penalties, and increasing the tax authorities’ enforcement powers. In others, it has involved simplifying legislation, thus easing the compliance burden on taxpayers.

• Organization of tax administration staff to help focus and coordinate responses to current and potential future types of evasion, not only for VAT but across tax types. Examples are the UK Her Majesty’s Revenue and Customs (HMRC) Evasion Referral Team and cross-tax Evasion teams.21 22

IV. DOES THE VAT REGISTRATION THRESHOLD POSE PARTICULAR NONCOMPLIANCE RISKS?

The VAT registration threshold defines the individuals and businesses who are subject to tax (and the corresponding accounting, reporting, and payment requirements). The criteria for setting the threshold, the frequency of its adjustment, and the rules relating to the regimes above and below the threshold all affect taxpayers’ behavior. This section discusses whether the various country authorities believe that the VAT/GST registration threshold has posed particular problems for managing tax compliance, and how they have responded.

21 With regard to the UK and other EU countries, where MTIC and carousel type frauds have emerged because of the special rules that apply to the VAT on intra-community trade, Keen and Smith (2007, p. 1) maintain that “… administrative measures alone may prove insufficient to deal with them, and a fundamental redesign of the VAT treatment of intra-community trade [may be] required.” However, they go on to say that “The current difficulties in the EU largely reflect circumstances that would not apply in the United States.” They also provide more details on the policy alternatives that are being considered to address VAT evasion problems that are specific to the EU.

22 More details on specific programs that tax authorities are carrying out to promote voluntary compliance and to combat VAT noncompliance are included in appendix from the author upon request.
A. Australia

When the GST was introduced in Australia in 2000, small businesses with a turnover of less than AUD 50,000 per year and non-profit organizations with a turnover of less than AUD 100,000 a year did not have to register (but could choose to do so). In 2005, a government task force was appointed to identify measures to alleviate businesses’ compliance burden. The task force’s report *Rethinking Regulation: Report of the Task-force on Reducing Regulatory Burdens on Business* (Australian Government, 2006), made several recommendations. As a result, in its 2007–2008 budget, the government announced an increase in the annual turnover thresholds for GST registration, to AUD 75,000 for businesses and to AUD 150,000 for non-profit entities, effective July 1, 2007.

In the 10 years since the introduction of the GST, the government has increased the threshold once (Table 2), in order to reduce the compliance burden on businesses. The current GST registration threshold is considered to be at an appropriate level, and there are no plans to modify it.

Australian tax officials indicated that, in their experience, there is no particular problem in having taxpayers lawfully outside the GST system. They pointed out that the number of businesses that would genuinely come under the registration threshold is small given the relatively low turnover threshold. In the meantime, they have not identified any significant number of businesses that operate outside the tax system. They point out that for most businesses there are benefits to being in the GST system. This includes being able to claim a refund of the GST, that is embedded in the prices of goods and services that they purchase. Also, if they are unregistered, other businesses may be reluctant to deal with them because they are unable to provide them with a tax invoice so that the purchasing business can claim a refund of the GST. According to ATO officials, businesses that stay outside the system do so principally to avoid income

<table>
<thead>
<tr>
<th>Country</th>
<th>Threshold at Introduction (In National Currency)</th>
<th>Threshold in 2010 (In National Currency)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>50,000</td>
<td>75,000</td>
</tr>
<tr>
<td></td>
<td>100,000 for non-profits</td>
<td>150,000 for non-profits</td>
</tr>
<tr>
<td>Canada</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>New Zealand</td>
<td>30,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Great Britain</td>
<td>5,000</td>
<td>73,000</td>
</tr>
</tbody>
</table>

Sources: Tax administration of each country surveyed
tax, which represents a more significant amount of taxation. Those staying outside the GST system also include small businesses that provide personal services to consumers.

B. Canada

When the GST was introduced in Canada in 1991, the registration threshold was set at CAD 30,000. It has remained at this level, and there are no current initiatives to lower or raise it. Although the threshold in Canada is significantly lower than many other countries that have a VAT, the CRA does not believe that it poses any significant problems for compliance. However, the agency has strategies in place to ensure that businesses that exceed the threshold are registered for GST/HST purposes and fulfill their obligations, including, for example, working closely with provincial and municipal governments and industry associations to identify non-registrants.

C. New Zealand

When the GST was introduced, the registration threshold was NZD 30,000. This was raised to NZD 40,000 in 2000 and to NZD 60,000 in 2009. Businesses can register voluntarily if they are under the NZD 60,000 threshold. According to IR officials, the threshold is not considered a serious issue from the point of view of GST compliance. Businesses generally prefer to deal with GST registered businesses in order to claim back the GST on expenses paid. Officials commented that rather than under-registration for GST, the situation is more likely to be the opposite, where businesses register when they are not required to do so. Taxpayers in this group tend to be non-filing, or “nil return” filing taxpayers, and contribute to the IR’s costs of administration without making a positive net contribution to tax revenue. New Zealand’s GST system is one of the easiest to enter in the OECD, which may contribute to the high volume of voluntary registrations received.

D. United Kingdom

The UK threshold is currently set at GBP 73,000 and is one of the highest in the EU. The deregistration threshold is GBP 71,000. This is set lower than the registration threshold to avoid making businesses trading around the threshold constantly register and deregister. Businesses trading below the threshold can choose to register for VAT voluntarily. The threshold was established to encourage the start up and growth of new enterprises and means that the smallest businesses can remain outside the VAT net altogether. Typically, the registration and deregistration thresholds are adjusted annually with inflation.

HMRC is aware of the risk that taxpayers may manipulate their transactions and business form to remain beneath the registration threshold and avoid VAT liabilities. It tackles this risk via a range of initiatives including starter business education, hidden economy teams, and confidential hotlines.
Compliance activity is undertaken by specialist teams who visit businesses (based on risk profiles) to see if they are understating the value of their sales. If it is found that the true value of taxable sales is above the registration threshold, then the business is registered from the date it became liable and HMRC applies the commensurate penalties.

If businesses have disaggregated their activities to be run by separate legal entities, HMRC will assess whether these entities’ total value of sales exceeds the registration threshold and if they have financial, organizational and economic links. If they do, HMRC will issue a notice to the entities involved that effectively aggregates the businesses into one entity for VAT purposes. This means the entities are treated as a partnership from the date of the notice and are required to register for VAT.

V. HOW DO THE TAX AUTHORITIES MEASURE VAT NONCOMPLIANCE?

Tax authorities use a variety of methods to measure the effectiveness of their compliance strategies and to monitor overall VAT/GST compliance levels. The approaches followed broadly fall into three categories: (1) VAT gap measures; (2) other micro-level or macroeconomic analysis; and (3) operational indicators.

A. VAT Gap Measures

Compared to the number of countries with VATs, relatively few countries regularly measure the VAT gap— but this number is increasing, as demonstrated by Australia’s recent issuance of its first GST gap estimates. This may have to do with the uncertainty of the estimates, the lack of sufficiently skilled staff able to perform such calculations, the costs involved, and the sensitivity of making such figures public. Such measurements, even with their methodological shortcomings (as well as their strong sensitivity to macroeconomic and tax policy changes), provide a sense of noncompliance trends over time, indicate the effectiveness of the tax administration, and may help direct compliance strategies.

Of the four countries reviewed in this study, the UK HMRC has the longest history of applying (and refining) a VAT gap methodology to measure and monitor VAT noncompliance and the size of VAT revenues lost because of different types of noncompliance. The Australian Tax Office recently issued its first series of GST gap measures for the period 2001–2002 to 2008–2010.

There are two methods used to calculate the VAT gap: (1) the “top-down” approach, based on the potential VAT revenues that are calculated based on national income and product accounts (total potential VAT revenues, net of refunds, are referred to as the

23 The tax gap refers to the difference between potential tax revenue (which can be defined according to various methodologies) and actual collections, with the difference expressed either in percentage terms or in dollar values.

net VAT theoretical tax liability, or VTTL); and (2) the “bottom-up” approach, which involves quantifying the actual revenue losses of different types of VAT evasion.

The UK HMRC has estimated the VAT gap according to the “top-down” methodology since 2002, although an unpublished historical series was constructed going back to 1990 to create a time series for forecasting purposes. The report issued at the end of 2012 provides a top down estimate for the VAT gap of GBP 9.6 billion, or 10.1 percent, in 2010–2011 (Table 3). HMRC officials have indicated that, given the concern over the size of the recent VAT losses due to carousel fraud, the VAT gap is now being calculated more frequently, allowing them to identify major deviations from expected receipts more quickly.

The UK VAT gap for the 2005–2006 tax year, at 13.1 percent, was not that different from the U.S. net federal tax gap in tax year 2006 — 14.5 percent. However, in the period from tax years 2004–2005 to 2010–2011, the UK VAT gap was larger than the UK corporate income tax gap with the exception of one year (2004–2005) — and larger than the UK personal income tax gap for the entire period.25 HMRC officials have attributed this difference to the generally observed phenomenon that withholding taxes (or those that generate substantial third-party data for the revenue authority) tend to show lower levels of noncompliance than self-assessed taxes. In the UK context, the VAT gap is higher than the equivalent measures for employees’ income tax and social security contributions, which are both withheld from wages by employers.

HMRC also calculates “bottom up” estimates of VAT revenue losses due to MTIC fraud. Table 4 shows recent estimates.26 Although these estimates are not precise, the UK tax authorities’ efforts to contain this type of fraud have had notable results. VAT revenue losses due to MTIC fraud decreased from around 26 percent of the estimated VAT gap in 2005–06 to around 14 percent of this gap in 2009–2010 (using the upper bound estimates).

HMRC officials use the “bottom-up” VAT gap estimates to validate the “top-down” VAT gap measure. As Tables 3 and 4 show, the measures of spikes in the “bottom-up” gap due to losses from MTIC fraud and VAT debt have been reflected robustly in equivalent changes to the “top-down” VAT gap.

In addition to the VAT gap estimate, starting in 2008 HMRC created a proxy series for the VAT gap, the ratio of VAT receipts to weighted household expenditures. This has enabled officials to examine compliance changes since the introduction of the VAT in the 1970s, and has proved useful in anticipating and responding to rapid growth of tax debt before it became unmanageable.

In 2012, the Australian Tax Office issued its first estimates of the GST gap, based on the application of a “top-down”, national accounts methodology. The estimated GST gap fell from 8.9 percent in 2001–2002 to 5.4 percent in 2008–2010, suggesting GST

25 A detailed breakdown of these gaps is provided in HMRC (2011). HMRC published updated provisional VAT gap measures in December, 2012, the details of which can be found at http://www.hmrc.gov.uk/statistics/tax-gaps/vat-gap-2012.pdf.
26 Details of these estimates are provided at http://www.hmrc.gov.uk/stats/mtg-2012.pdf.
Table 3
VTTL, VAT Receipts and Revenue Losses, UK, 2003–2011

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net VTTL (£billion)</td>
<td>78.6</td>
<td>80.7</td>
<td>84.0</td>
<td>87.8</td>
<td>91.5</td>
<td>91.2</td>
<td>80.0</td>
<td>94.9</td>
</tr>
<tr>
<td>Net VAT receipts³ (£billion)</td>
<td>69.1</td>
<td>72.8</td>
<td>73.0</td>
<td>77.6</td>
<td>82.0</td>
<td>79.8</td>
<td>71.4</td>
<td>85.3</td>
</tr>
<tr>
<td>Revenue loss (£billion)</td>
<td>9.5</td>
<td>7.9</td>
<td>11.0</td>
<td>10.2</td>
<td>9.6</td>
<td>11.3</td>
<td>8.6</td>
<td>9.6</td>
</tr>
<tr>
<td>VAT gap (%)</td>
<td>12.0</td>
<td>9.8</td>
<td>13.1</td>
<td>11.6</td>
<td>10.5</td>
<td>12.4</td>
<td>10.8</td>
<td>10.1</td>
</tr>
</tbody>
</table>

Source: HMRC, (2012)

(1) The totals may differ from the sum of the components because of rounding.
(2) A proportion of the VTTL estimate for the final year is based on projected rather than actual expenditure.
(3) Net VAT receipts are expressed net of refunds.
<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attempted Fraud</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper bound</td>
<td>5.0</td>
<td>4.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Lower bound</td>
<td>4.0</td>
<td>3.0</td>
<td>0.5</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Impact on VAT Receipts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper bound</td>
<td>3.5</td>
<td>2.5</td>
<td>2.0</td>
<td>2.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Lower bound</td>
<td>2.5</td>
<td>1.5</td>
<td>0.5</td>
<td>1.0</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Source: HMRC (2010)
The Potential Challenges of Administering a U.S. VAT

compliance is high. Estimates for the latter period are based on the average GST gap per year for 2008–2009 and 2009–2010.

Canada’s approach to measuring the GST gap is comparable to the U.S. IRS’s Taxpayer Compliance Measurement Program, which uses random audits to estimate income tax noncompliance. The CRA first introduced a formal random audit program, the Core Audit Program (CAP), in 1999 to measure the compliance levels of small and medium enterprises (SMEs). Each year a statistically significant sample of taxpayers is randomly audited to provide noncompliance rates for the target segment of the population (e.g., self-employed, corporations, or GST/HST registrants) and to obtain insight into compliance issues that would otherwise not be available to the tax agency.

According to the CRA’s Annual Report to Parliament, 2009–2010, 5.5 percent of small and medium size businesses that were registered for the GST/HST were found to have significant noncompliance for the 2008–2009 tax years, a remarkably low noncompliance level.

The Canadian tax authorities do not measure the dollar value of GST noncompliance, commonly referred to as tax gap analysis. However, in its 2009–2010 Annual Report, the agency reports some noncompliance data for the GST/HST — CAD 1.6 billion in GST/HST and employer noncompliance in 2009–2010. This translates into approximately a 6 percent noncompliance rate when compared to net GST revenues for the same period. This is broadly consistent with the noncompliance level for the small and medium size enterprises that was calculated through the random audit program — a level that is low by international standards.

New Zealand’s Inland Revenue does not currently measure the GST gap. However, in the late 1990’s, IR financed a study to measure the total tax gap, as discussed in Giles (1999). The study developed and estimated a structural, latent variable model for the hidden economy. It concluded that during the period 1968–1994 (which coincided with the introduction of the GST), the total tax gap was on the order of 6.4 percent to 10.2 percent of total tax liabilities. The study shows that in the five years immediately following the introduction of the GST, this gap fell from around 10 percent to 8 percent, the most marked fall in the tax gap during the entire period of the study. However, from 1993–1996, it resumed an upward trend.

Other macro- and micro-level analyses to monitor VAT/GST noncompliance. In addition to tax gap estimates, which may or not be calculated on a regular basis, countries use a number of other methods based on micro- and macro-level analyses to gauge noncompliance with the VAT/GST.

The ATO, for example, has developed modeling and analytical techniques to ensure revenue at a macroeconomic level is appropriate. These include (but are not limited to):

- Benchmarking of GST revenue performance against external indicators (e.g., data from the Australian Bureau of Statistics Australian National Accounts: National Income, Expenditure and Product Accounts).
• Industry analysis of GST revenue and aggregate Business Activity Statement results.
• Quantitative and qualitative analysis of GST revenue including refunds, debt, and return filing at the macro, industry, and market segment levels.
• Impact analysis (modeling, sensitivity analysis) of economic events and their relationship to GST revenue.
• Constant monitoring and analysis of Australia’s largest GST taxpayers and refund claimants.

The purpose of these techniques is to identify and investigate any divergence in trends for net GST, input tax credits, and GST payable at the client, industry, and segment level. This work provides confidence that GST revenue movements are appropriate, that business-to-business transactions have a net zero effect on revenue, and that businesses-to-consumer transactions are properly accounted for (by comparing to other benchmarks). Analysis is also undertaken when it is detected that large entities show variations over a certain threshold, for example, when there is a significant increase in refunds or where businesses have a different tax performance than other similar business within the same industry.

The following are examples of this type of analysis:

Percentage growth in revenue, compared to growth in the nominal economy. This analysis seeks to compare movements in the growth in GST revenue against the growth in nominal national accounts (GDP) consumption that is subject to GST. When movements between the GST revenue and nominal consumption are correlated throughout time, this provides assurance that there are no underlying changes to compliance in the system. The object of comparison is movements in bases, not absolute figures.

Industry analysis & benchmarking: final sale or expenditure (input tax credit) benchmarks. The ATO undertakes industry benchmarking to ensure GST input tax credits that are reported by various industries follow the same general trend in the volume of capital goods purchases for the same industry. This analysis is done throughout the year for industries such as retail trade, finance, wholesale trade, mining, construction, hotel cafes and restaurants, motor vehicle retailing, and the finance and government sectors.

Industry to industry analysis — ensuring that GST remains zero throughout the chain and is borne by the final consumer. Based on this benchmarking, officials analyze the inputs and outputs within the business chain, to ensure business-to-business transactions have a net zero effect on GST revenue.

Analysis and monitoring of largest GST taxpayers. Given large businesses’ importance for overall tax revenue, the ATO pays special attention to monitoring them. The process of reviewing large taxpayers’ revenue performance consists broadly of three
steps: (1) Identifying key variations in clients’ GST payment; (2) examining and analyzing the reasons for variations in clients’ performance; and (3) contacting the client for additional information.

ATO officials monitor taxpayers individually and compare them to other similar entities to ensure movements in GST are appropriate. Special attention is focused on the 135 largest economic groups. Those with a year-on-year variation of plus or minus AUD 10 million are analyzed closely. The analysis includes contacting the taxpayer and evaluating the economic and industry context in which the group operates. Tax return data may also be compared to similar entities and to external information such as annual reports and national accounts information, to look for indicators of noncompliance.

Canada’s Revenue Agency also analyzes a number of macroeconomic indicators that gauge trends in taxpayer behavior with respect to reporting compliance. One indicator compares the movement of GST/HST revenue with two indicators of the tax base: retail sales and personal expenditure. As Figure 4 shows, GST/HST revenue follows

![Figure 4](image-url)

**Figure 4**
Canada: Trends in GST/HST Revenue Compared to Retail Sales and Personal Expenditures, 1996–2008

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>-</td>
</tr>
<tr>
<td>1998</td>
<td>-</td>
</tr>
<tr>
<td>1999</td>
<td>-</td>
</tr>
<tr>
<td>2000</td>
<td>-</td>
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<tr>
<td>2001</td>
<td>-</td>
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<td>2002</td>
<td>-</td>
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<td>2003</td>
<td>-</td>
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<tr>
<td>2004</td>
<td>-</td>
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<td>2005</td>
<td>-</td>
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<tr>
<td>2006</td>
<td>-</td>
</tr>
<tr>
<td>2007</td>
<td>-</td>
</tr>
<tr>
<td>2008</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Canada Revenue Agency (2010)
the general movements of the tax base until 2005. After that, two successive reductions in tax rates since 2006 have led to reductions in GST/HST revenue.\(^{27}\)

**Operational indicators of VAT/GST compliance.** Countries also use various operational indicators to monitor taxpayers’ compliance with their basic VAT/GST obligations (e.g., registration, filing, payment). The ATO monitors compliance with basic obligations, including registration, return filing, and payment.\(^{28}\) Table 5 below shows the indicators used to monitor GST filing compliance.

The CRA relies on four operational indicators to gauge Canadian taxpayers’ compliance behavior:\(^{29}\)

- Registration compliance, which measures businesses’ compliance with GST registration obligations.
- Remittance compliance, which measures how various segments comply with payment requirements based on their self-assessment.
- Filing compliance, which represents the rates of taxpayers who file on time.
- Reporting compliance, which represents the rates of taxpayers who report accurately.

As Table 6 shows, compliance levels based on these indicators were high in 2008–2009 and 2009–2010.

The New Zealand tax authorities use two operational indicators for measuring GST noncompliance: a GST filing compliance index and a GST payment compliance index. The filing compliance index is the ratio of the number of late GST returns to the total number of GST returns filed per tax year. A return is considered to be on time if it is filed within seven days after the due date. The payment compliance index is the ratio of the number of late GST payments to the total number of corresponding payments per tax year. A payment is considered to be paid on time if it is paid in full within seven days after the due date. Both indices have been monitored since 2003 and are publicly available on the IR tax statistics website.\(^{30}\)

Filing compliance for the GST for the 2009–2010 tax year was 87 percent, higher than the filing compliance levels for both the individual and business income tax during the same period. Payment compliance for the GST declined slightly over the period March 2003–March 2009, but was higher than payment compliance levels for the personal income tax until 2006 (Q1), and higher than payment compliance for the business income tax from March 2003–March 2009.

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\(^{27}\) The Canadian authorities reduced the federal GST rate from 7 percent to 6 percent in 2006 and from 6 percent to 5 percent in 2008.

\(^{28}\) These and other indicators of GST compliance are summarized in Australian Tax Office (2013).

\(^{29}\) These and other GST performance indicators are published in the Canada Revenue Agency (2010).

\(^{30}\) The IR Tax Statistic website is at http://www.ird.govt.nz/aboutir/external-stats/.
Table 5
Australia: Percentage of Returns Filed on Time and Overall, 2006–2007 and 2009–2010

<table>
<thead>
<tr>
<th>Year</th>
<th>Monthly Returns Filed on Time</th>
<th>Quarterly Returns Filed on Time</th>
<th>Monthly Returns Filed Overall</th>
<th>Quarterly Returns Filed Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006–2007</td>
<td>95.40</td>
<td>93.15</td>
<td>90.20</td>
<td>85.10</td>
</tr>
<tr>
<td>2007–2008</td>
<td>79.07</td>
<td>75.20</td>
<td>89.61</td>
<td>85.09</td>
</tr>
<tr>
<td>2008–2009</td>
<td>79.07</td>
<td>74.92</td>
<td>83.65</td>
<td>85.29</td>
</tr>
<tr>
<td>2009–2010 (at July 2010)</td>
<td>73.01</td>
<td>73.38</td>
<td>83.65</td>
<td>85.29</td>
</tr>
</tbody>
</table>

VI. CONCLUSIONS

This paper examines the experiences of Australia, Canada, New Zealand, and the UK in introducing and administering the VAT/GST with a view to highlighting some of the actual compliance issues that U.S. tax authorities might face were a federal VAT to be adopted. The paper briefly describes the policy context for VAT/GST introduction in the four countries. It then identifies some of the challenges that tax authorities have faced in encouraging and enforcing compliance with the tax, their approaches to tackling these issues, and the methods they are using to measure the effectiveness of their compliance programs and VAT performance.

While the context for VAT introduction in each country was different, a review of the countries’ experiences may shed some light on current tax policy discussions in the United States as these VAT introductions were part of a broader effort to modernize the structure of the tax system and reduce reliance on income taxation in favor of consumption taxation. The VAT was introduced to replace previously existing wholesale or multi-stage sales taxes that were inefficient and distortionary. The revenues generated by the VATs/GSTs gave the authorities greater flexibility to lower personal and corporate income taxes over time and, in the Canadian case, to reduce a large fiscal deficit. In the four countries, federal government tax revenues as a percent of GDP have not increased significantly since the VAT was introduced until 2010. Finally, Canada’s experience shows that it is possible to introduce a federal VAT/GST that can co-exist with a varied system of subnational sales taxation that reflects local preferences.

A comparison of the countries’ experiences reveals certain patterns of VAT noncompliance. UK officials pointed out that a large proportion of VAT revenue is lost through relatively mundane forms of fraud and evasion, such as under-declaration of sales, exaggeration of input VAT, and non-registration. Because of the nature of the input-credit VAT and the need to refund large amounts of VAT, irregularities relating to VAT refund claims and refund fraud were cited as risks across all countries. Mistakes (intentional and not) relating to the correct classification of transactions according to their treatment

<table>
<thead>
<tr>
<th>Performance Indicator</th>
<th>Year</th>
<th>Rating (% of total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian businesses that were registered for the GST/HST</td>
<td>2009–2010</td>
<td>93.5</td>
</tr>
<tr>
<td>Businesses that filed their GST/HST returns on time</td>
<td>2008–2009</td>
<td>90.5</td>
</tr>
</tbody>
</table>

Source: Canada Revenue Agency (2010)
under the VAT law were cited frequently among the major causes of noncompliance — suggesting that fewer special treatments and differentiated rates under a VAT will lower the risks of noncompliance.

Officials highlighted other patterns of noncompliance by taxpayer size, including (but not limited to): (1) irregularities related to the concessional treatment of property transactions (especially the use of the “phoenix” scheme) and the provision of financial services; (2) incorrect calculation of VAT liabilities stemming from a breakdown of computerized accounting systems or computerized processes; (3) failure to report VAT charged on sales; (4) invalid invoices; (5) errors relating to lack of knowledge of the VAT/GST laws; and (6) non-payment of VAT on cash transactions.

Risks relating to carousel or MTIC-type VAT fraud, which have resulted in serious VAT revenue losses in the UK, are more relevant to the EU countries, where customs controls of VAT payment on imports were eliminated with the shift to a borderless common market. The importance of this type of high-profile fraud in terms of revenue loss has decreased in the UK and is estimated to have accounted for approximately 14 percent of VAT revenue losses in 2009–2010.

The strategies that tax authorities have developed after several decades’ experience with administering the VAT to encourage voluntary compliance and to combat noncompliance are also similar. These consist, broadly, of a multi-faceted approach that focuses on: (1) measures to promote compliance (these include: simplifying the tax laws to make it easier to comply and to reduce the burden on taxpayers; implementing education and communication programs to prevent errors and deter evasion; and effecting behavioral changes across targeted taxpayer groups through cooperation with third parties); (2) measures to combat noncompliance (these include: information gathering and cross-matching with third party information, intelligence work and the application of risk assessment techniques; execution of a well-designed audit program; modification of tax and tax procedures laws to address “hard to treat” compliance risks; and strengthened legal and administrative enforcement powers); and (3) measuring and monitoring the extent of VAT noncompliance. Internally, the tax administrations have increasingly taken a “whole-of-client” instead of a “tax-by-tax” approach to ensure compliance. There is also greater collaboration across specialized units within tax agencies and across government agencies to identify risks of evasion and to design responses.

The level of the VAT/GST registration threshold matters. Three of the four countries have raised their thresholds significantly, in line with inflation, but also to reduce compliance costs for smaller taxpayers and administrative costs. In all cases, however, smaller businesses can opt to register for the VAT. Tax officials in the countries surveyed emphasized that care must be taken to ensure that proper checks are in place before a business can register for the VAT. Taxpayers on the lower end of the turnover scale who consistently file zero-balance returns, or who consistently claim to be in a net VAT credit position, can contribute to the tax agency’s costs of administration without making a positive net contribution to tax revenue. The tax administration’s ability to deregister taxpayers quickly when fraud is suspected is essential.
The four countries measure the effectiveness of VAT compliance strategies through (either all or several of) three types of measures: VAT gap measures, other micro-level or macroeconomic analysis, and operational indicators. Of the four countries, the UK has historically undertaken the most comprehensive calculation of the “top-down” VAT gap. In 2012 the Australian Tax Office issued its first estimates of the GST gap for the period 2001–2010, which show that noncompliance with the Australian GST is low and has decreased since GST introduction. Of note is the similar size of the UK VAT gap in 2005–2006 (13.1 percent) compared to the U.S. federal tax gap for tax year 2006 (14.5 percent). This suggests that noncompliance rates for a federal VAT and federal income taxes might not differ that substantially. That said, the UK VAT gap in recent years has been larger than the UK personal and corporation income tax gaps — perhaps reflecting the higher compliance levels associated with withholding taxes compared to a self-assessed tax like the VAT. Canada’s approach to measuring the GST gap is comparable to the U.S. IRS’s Taxpayer Compliance Measurement Program, which uses random audits to measure the extent of income tax noncompliance. The Australian experience shows that there is a wide array of other macro- and microeconomic indicators that can be applied to gauge various aspects of VAT compliance — all of which could be applied in a U.S. context. This is also the case for the operational indicators used in all the countries.

There are a number of issues that this paper does not address, including a comparison of the compliance and administrative costs of a VAT/GST and the income tax, compliance issues associated with the small taxpayers that remain below the registration threshold, and options for administering federal and sub-national VATs and sales taxes effectively. These are topics for further research.

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