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Report to Congressional Requesters

April 2008

VALUE-ADDED TAXES

Lessons Learned from Other Countries on Compliance Risks, Administrative Costs, Compliance Burden, and Transition

GAO-08-566

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Highlights

Highlights of GAO-08-566, a report to congressional requesters

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Why GAO Did This Study

Dissatisfaction with the federal tax system has led to a debate about U.S. tax reform, including proposals for a national consumption tax. One type of proposed consumption tax is a value-added tax (VAT), widely used around the world. A VAT is levied on the difference between a business's sales and its purchases of goods and services. Typically, a business calculates the tax due on its sales, subtracts a credit for taxes paid on its purchases, and remits the difference to the government. While the economic and distributional effects of a U.S. VAT type tax have been studied, GAO was asked to identify the lessons learned from other countries' experiences in administering a VAT. This report describes (1) how VAT design choices, such as exemptions and enforcement mechanisms, have affected compliance, administrative costs, and compliance burden; (2) how countries with federal systems administer a VAT; and (3) how countries that recently transitioned to a VAT implemented the new tax.

GAO selected five countries to study—Australia, Canada, France, New Zealand, and the United Kingdom—that provided a range of VAT designs from relatively simple to more complex with multiple exemptions and tax rates. The study countries also included some with federal systems and some that recently implemented a VAT.

GAO does not make any recommendations in this report.

To view the full product, including the scope and methodology, click on GAO-08-566. For more information, contact Jim White at (202) 512-5594 or whitej@gao.gov.

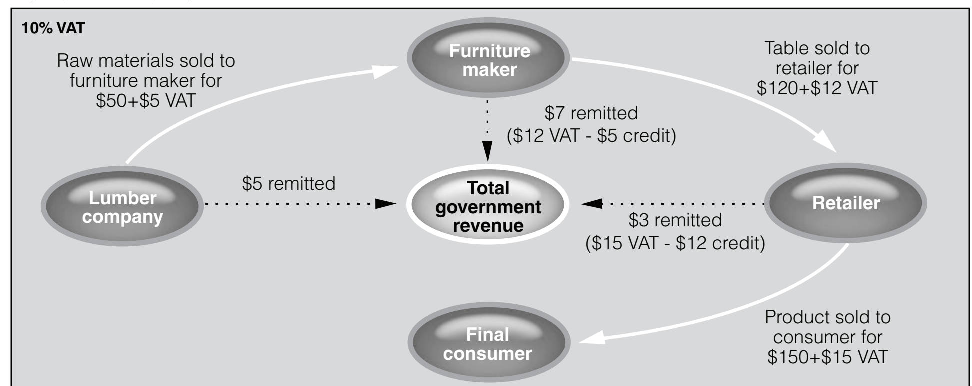
What GAO Found

Like other tax systems, even a simple VAT—one that exempts few goods or services—has compliance risks and, largely as a consequence, generates administrative costs and compliance burden. For example, all of the study countries reported that they devoted significant enforcement resources to addressing compliance. Businesses whose taxable purchases exceed their taxable sales are entitled to a refund under a VAT, which makes VATs vulnerable to fraudsters creating phony invoices in order to falsely claim refunds. Also, similar to other taxes, adding complexity through exemptions of some goods or services and reduced tax rates generally decreases revenue and increases compliance risks because of the incentive to misclassify purchases and sales. Such complexity also increases the record-keeping burden on businesses and increases the government resources devoted to enforcement.

Canada's experience administering a national VAT along with a variety of provincial VATs and sales taxes demonstrates that multiple arrangements in a federal system are feasible, but increase administrative costs and compliance challenges for both the governments and businesses. Businesses, particularly retailers, in provinces with a sales tax face greater compliance burdens than those in other provinces because they are subject to dual reporting, filing, and remittance requirements.

Australia, Canada, and New Zealand, all with relatively new VATs, built on preexisting consumption tax administrative structures to implement the new tax. Nevertheless, they devoted considerable resources to educate, assist, and register businesses and implementation took from 15 to 24 months. Both Australia and Canada provided monetary assistance to qualifying small businesses to help meet new bookkeeping and reporting requirements. Despite their efforts, Australia and Canada had some difficulty getting businesses to register for the VAT by the implementation date.

How a VAT Works



Source: GAO.

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United States Government Accountability Office
Washington, DC 20548

April 4, 2008

The Honorable Jim McCrery
Ranking Member
Committee on Ways and Means
House of Representatives

The Honorable Jim Ramstad
Ranking Member
Subcommittee on Oversight
Committee on Ways and Means
House of Representatives

Concerns about our current income tax system have fueled a debate about fundamental tax reform in the United States. The debate is partly about whether to reform the current income tax, for example by broadening its base and lowering rates, or to switch to some form of a consumption tax. The concerns about our tax system include its economic inefficiency, unfairness, and complexity. In addition, issues have been raised about whether its design provides fertile ground for noncompliance, with an estimated annual gross tax gap of approximately $345 billion for tax year 2001, or 17 percent of federal revenue that year.

In recent years, a variety of tax reforms have been proposed for the United States. Some proposals involve switching to a consumption tax or combining a consumption tax with an income tax. One consumption tax that some have proposed is a value-added tax (VAT). Others have proposed consumption taxes with features similar to a VAT. For example the Department of the Treasury (Treasury) recently outlined a VAT-like tax, called a business activity tax, in a report that discussed alternatives to reform U.S. business taxation.[1]

A VAT is applied to the difference between a business's sales of goods and services and its purchases of goods and services (excluding wages), therefore taxing the value added by each business. Unlike retail sales taxes (RST), VATs are collected at all stages of production and distribution.

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[1] United States Department of the Treasury, *Approaches to Improve the Competitiveness of the U.S. Business Tax System for the 21st Century*, (Washington, DC: Dec. 20, 2007).

VATs have grown in popularity over the past five decades. Today, the United States is the only member of the Organization for Economic Cooperation and Development (OECD) without a VAT.[2] On average, VATs raise over 18 percent of government revenue in OECD countries that have a VAT. Worldwide, by one estimate, more than 130 countries have a VAT.

A VAT is a broad-based consumption tax. As such, it avoids some of the complications of an income tax, such as the need to define and compute depreciation and capital gains. Because VAT is remitted by businesses, it also avoids issues related to collecting taxes from individuals.

As a consumption tax, a VAT has different economic and distributional impacts than an income tax. Treasury, the Congressional Budget Office, and others have studied those impacts.[3] In addition, we reported in 1993 on the estimated cost that the Internal Revenue Service (IRS) and other federal agencies could be expected to incur if a simple VAT were added as a federal revenue source in the United States.[4] However, less has been reported in the United States on how other countries have designed their VATs, including tax rates, exemptions, filing requirements, and enforcement mechanisms, and how those design choices have affected businesses and tax administrators.[5]

You requested that we report on the important lessons learned from selected other countries' experiences administering a VAT. Our specific objectives were to describe for the selected countries (1) how VAT design choices have affected compliance, administrative costs, and compliance burden; (2) how countries with federal systems administer a VAT in

[2] The 30 OECD member countries represent countries that have attained a relatively high level of development and share a commitment to the market economy and pluralist democracy. Its members account for 60 percent of world gross national product, three-quarters of world trade, and 14 percent of the world population.

[3] For examples, see *Tax Reform for Fairness, Simplicity, and Economic Growth: The Treasury Department Report to the President* (November 1984) and Congressional Budget Office, *The Economic Effects of Comprehensive Tax Reform*, (July 1997).

[4] GAO, *Implications of Replacing the Corporate Income Tax with a Consumption Tax*, GGD-93-55 (Washington, D.C.: May 1993).

[5] In most instances, we use the term 'businesses' in this report to refer to the corporations, businesses, partnerships, proprietorships, organizations, government agencies, and other entities that are required to collect and remit VAT. We refer to specific types of entities, as appropriate.

conjunction with subnational consumption tax systems; and (3) how countries that recently transitioned to a VAT implemented the new tax.

We selected five countries—Australia, Canada, France, New Zealand, and the United Kingdom—to study based on several criteria, including the complexity of VAT design, the age of the VAT system, and whether the country had a federal system.[6] We used expert recommendations to help ensure a range of VAT designs in our five study countries. For all of the countries we studied, we performed an in-depth literature review, including government documents, OECD studies, and academic papers. We collected and analyzed data on the countries and their VAT systems, including VAT revenue trends, administrative and compliance activities and costs, and the size and distribution of economic activity within the study countries. To provide assurance that the data used in our report were sufficiently reliable, we used data from commonly used and cited sources of statistical data, such as the OECD, and from publicly available reports from international government agencies. We also discussed these data with OECD officials, government agency officials, and noted VAT experts in several professional services and research organizations. We interviewed knowledgeable government officials from the study countries, including officials from their tax administration agencies and the national audit institutions. We also interviewed VAT experts, including academic and private-sector tax experts and researchers at the OECD and the International Monetary Fund. In addition, we interviewed members of a number of professional services organizations that represent and serve businesses subject to VAT requirements. We provided the national audit institutions and the tax administration agencies of our study countries a copy of our report to verify data and specific factual and legal statements about the VAT in those countries. We made technical corrections to our report based on these reviews. A more detailed discussion of our methodology is in appendix I.

We do not make any recommendations in this report. We conducted this performance audit from December 2006 through April 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions

[6] Australia, Canada, and New Zealand refer to their VAT systems as a Goods and Services Tax (GST). For the purposes of this report, we will use the term VAT when referring to the GST systems of these countries.

based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Results in Brief

The experiences of our five study countries show that all VAT designs have compliance risks that generate considerable administrative costs and compliance burden and that, similar to the U.S. tax system, adding complexity to the tax's design increases these risks, costs, and burdens. While our study countries had VATs of varied designs and complexity, they all devoted significant enforcement resources to addressing compliance that would be found in even a simple VAT—one with a broad base that exempts few goods or services. These risks include refund fraud and missing trader fraud. VATs are vulnerable to refund fraud because businesses with taxable sales less than taxable purchases are entitled to refunds. All of our study countries were concerned about illegitimate businesses or fraudsters submitting fraudulent refund claims based on false paperwork that result in the theft of funds from the government. Missing traders set up businesses for the sole purpose of collecting VAT on sales and then disappear with the proceeds. Because of such compliance risks, even simple VATs require enforcement activities, such as audits, and record-keeping by businesses that create administrative costs for the government and compliance burden for businesses. Of course, compliance risks and the associated administrative costs and compliance burdens are not peculiar to VATs. While the specifics may vary, other types of taxes also carry compliance risks.

Some available data indicate a VAT may be less expensive to administer than an income tax. The tax administration agency in the United Kingdom measured administrative costs for the VAT to be 0.55 percent of revenue collected compared to 1.27 percent for income tax. Officials at the New Zealand Inland Revenue Department also told us that administering their VAT was easier than administering some of their other taxes. Adding complexity through exemptions, exclusions, and reduced rates, which can exist in other tax systems, generally decreases revenues and increases compliance risks, administrative costs, and compliance burden. All of our study countries do not fully include certain goods and services, such as food, health care, commercial property, and sales of religious and cultural services in the tax base for social, political, or administrative reasons. Two of our study countries, France and the United Kingdom, collected less than half of the revenue potentially collectible, due in part to preferential treatment of certain sectors and noncompliance. Adding complexity also increases the risk of noncompliance because of the incentive to avoid tax

by misclassifying goods or services as exempt or excluded. For example, in Australia and Canada, where certain food items are not taxed, businesses need to accurately categorize their sales as taxable or nontaxable.

Canada's experience demonstrates that, while multiple consumption tax arrangements in a federal system are possible, such arrangements create additional administrative costs and compliance burden for governments and businesses. Canada is the only one of our study countries with multiple consumption tax systems across the provinces that include:

- separate federal and provincial VATs administered by a province (Québec),
- joint federal and provincial VATs administered by the federal government,
- separate federal VAT and provincial RSTs administered separately, and
- a federal VAT only.

Tax system complexity and compliance burden in Canada vary among provinces depending on the level of coordination between the provinces and the federal VAT. Businesses in provinces where the provincial and federal VATs tax the same goods and services and are administered by the federal government have less compliance burden since they only have to comply with one set of requirements.

Australia, Canada, and New Zealand, the study countries that most recently implemented a VAT, all built on preexisting administrative structures. All had national consumption taxes that were paid by businesses. Despite the preexisting structure, implementation of the new tax in these countries involved multiple agencies, the development of new policies and processes, and the hiring of additional staff. The countries took 15 to 24 months to implement the VAT with a great deal of time and effort devoted to education activities. For example, Australian officials said a key part of their education and outreach strategy was to target key players in various industry sectors, such as local chambers of commerce. Both Canada and Australia also provided direct monetary assistance to qualifying small businesses to defray the costs of acquiring the necessary supplies needed to meet new bookkeeping and reporting requirements. Despite significant efforts to encourage businesses to submit materials early for VAT registration, both Australia and Canada still had difficulty getting businesses to register prior to the VAT implementation date. In both countries, this resulted in significant spikes in registration and education-related workload just prior to implementation. In Canada, for

example, only 500,000 or 31 percent of the 1.6 million total registrants had voluntarily registered 3 months prior to VAT implementation.

Background

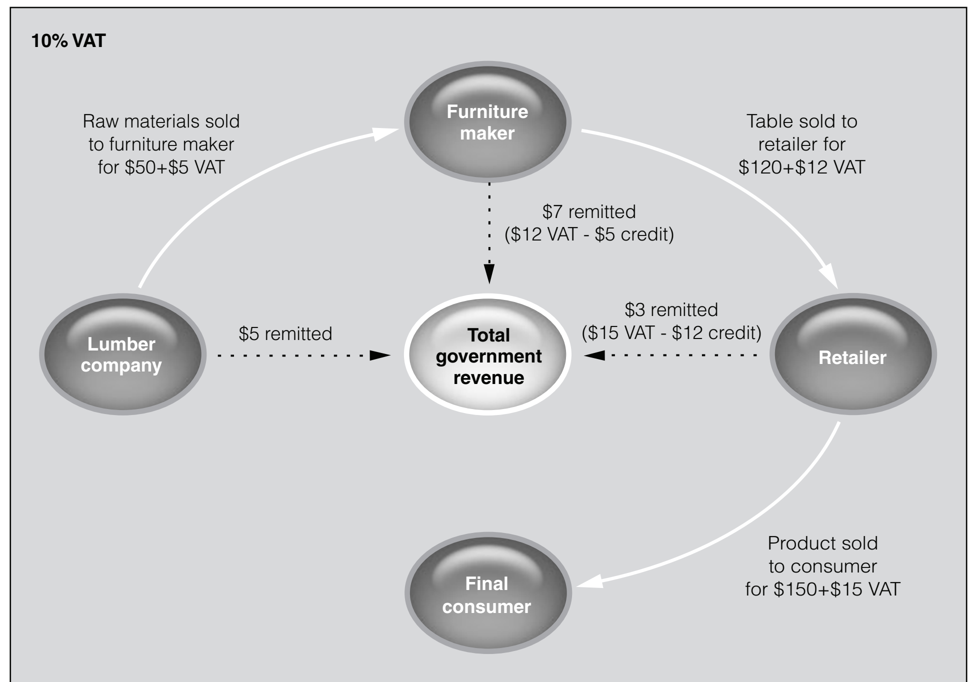
VATs are taxes levied on the difference between a business's sales of goods and services to consumers or other businesses and its purchases of goods and services. Thus, businesses pay tax on the value they add to the goods and services they purchase from other businesses. All types of businesses, not just retail businesses, are subject to the tax, and sales to both consumers and other businesses are taxable.

VAT liability is typically calculated in industrialized countries using the credit-invoice method.[7] Businesses apply the VAT rate to their sales but claim a credit for VAT paid on purchases of inputs from other businesses (shown on purchase invoices). The difference between the VAT collected on sales and the credit for VAT paid on input purchases is remitted to the government.

Figure 1 illustrates a VAT with a 10 percent rate. A lumber company cuts and mills trees and has sales of $50 to a furniture maker. Assuming no input purchases from other businesses to keep the illustration simple, the company adds the tax to the price of the goods sold and remits $5 in tax to the government. The purchase invoice received by the furniture maker would list $50 in purchases plus $5 in VAT paid.

[7] Of the 29 OECD countries that have a VAT, 28 use the credit-invoice VAT. One country, Japan, employs a type of subtraction method VAT which taxes the difference between a business's net outputs and net inputs. Invoices are used to show proof of purchases and sales, but not proof of VAT paid on inputs. For the purpose of this report, we focus only on the credit-invoice method.

Figure 1: Example of How a VAT Works



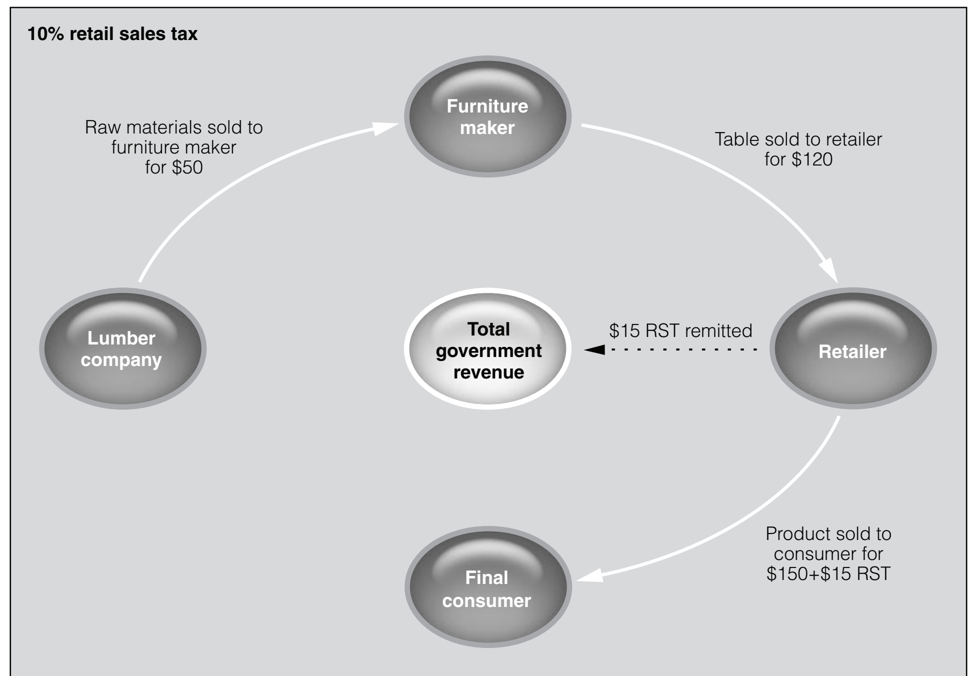
Source: GAO.

If the furniture maker has sales of $120 to a retail store, $12 of VAT would be added to the sales price but the furniture maker could subtract a credit for the $5 VAT paid on purchases and remit $7 to the government. The retailer would receive an invoice showing purchases of $120 and $12 of VAT.

Similarly, if the retailer then has sales of $150, $15 of VAT would be added but the retailer could subtract a credit for the $12 paid on purchases and remit $3 to the government.

In total, the government would receive VAT equal to 10 percent of the final sales price to consumers. Thus, a 10 percent VAT is equivalent to a 10 percent RST in terms of revenue. Figure 2 illustrates a RST. Under both taxes, the final consumer ultimately bears the economic burden of the tax ($15).

Figure 2: Example of How a RST Works



Source: GAO.

A major distinction between these two types of consumption taxes is the number of businesses responsible for collecting and remitting tax. A VAT widens the number of businesses collecting and remitting the tax. However, unlike a RST, businesses do not have to verify the status of the customer as either a business or a final consumer.

Consumption taxes can be administered in a number of different ways—as the previous examples of a VAT and RST demonstrate—but are intended to tax expenditures on goods and services rather than total income.[8] The part of a final consumer's income that is saved is not subject to current taxation under a consumption tax.

[8] In theory, a VAT could be designed as an income tax by not allowing businesses to subtract investment purchases from sales, that is, by not allowing businesses to expense investments. Under an income tax, businesses would be allowed depreciation deductions that account for the loss in value of investments over time. In practice, VATs generally are designed as consumption taxes.

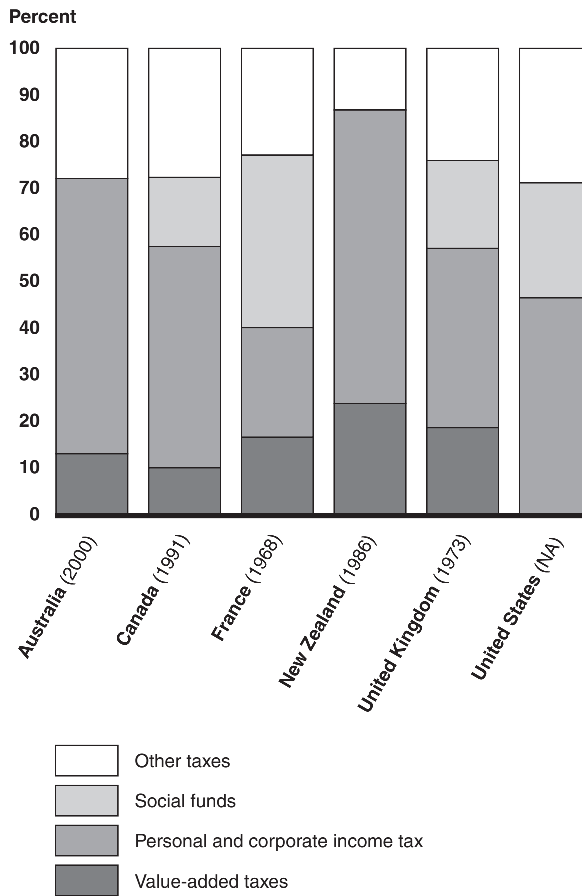
Spread of VAT around the World

A VAT was developed and first introduced in France in 1954.[9] According to an estimate by the OECD, a VAT is now imposed in approximately 136 countries, including every OECD country except the United States. Every OECD country that imposes a VAT also has income taxes.

VATs provide a significant amount of revenue. For example, in 2003, VAT revenues accounted for approximately 18 percent of total tax revenues collected in OECD countries with a VAT. As figure 3 shows, 2005 tax revenues from a VAT range from just over 10 percent in Canada to more than 23 percent in New Zealand. However, personal and corporate income taxes account for a larger percentage of total revenues than a VAT in all of the study countries.

[9] The VAT was not a mandatory method for calculating tax obligations in France until 1968, according to *Restructuring the French Economy* by William James Adams.

Figure 3: Revenues by Tax Type in Selected OECD Countries (2005) and Year of VAT Introduction



Source: OECD.

Note: The "other taxes" category is comprised of various federal, state, and local government taxes that vary in nature and relevant magnitude from country to country. For example, in the case of the United States, this includes excise taxes, property taxes, use taxes, and state and local sales taxes.

The Current U.S. Tax System

The current federal tax system in the United States consists primarily of five types of taxes: (1) personal income taxes; (2) corporate income taxes; (3) social insurance taxes (employee and employer contributions for Social Security, Medicare, and unemployment compensation); (4) estate and gift taxes; and (5) other taxes such as excise taxes on selected goods and services including fuel, tobacco, alcohol, and firearms. At the state and local levels, the important taxes are income, retail sales, and property.

Estimates of the total burden placed on businesses to comply with these taxes are uncertain because neither the government nor businesses maintain regular accounts of these costs and many important elements of the costs are difficult to measure because, among other things, federal tax requirements often overlap with recordkeeping and reporting that businesses do for other purposes. However, based on a review of studies by others, we reported that individual and corporate compliance costs are approximately 1 percent of gross domestic product (GDP) when using the lowest available and incomplete estimates. Other studies estimate the costs to be as high as 1.5 percent of GDP.[10]

IRS estimates the gross tax gap—the difference between what taxpayers actually paid and what they should have paid on a timely basis—to be $345 billion for tax year 2001. IRS also estimates that it will collect $55 billion, leaving a net tax gap of $290 billion.

IRS's budget for fiscal year 2008 is $10.9 billion. In administering the tax laws, IRS's two main functions are to provide (1) service to individual and business taxpayers—including responding to telephone queries and providing Web services, and (2) enforcement activities—including examinations and collections. Major examination efforts include computerized matching of third-party information with tax returns as well as audits.

Criteria for Evaluating Tax Systems

In a 2005 report, we describe the criteria typically used for evaluating tax systems as (1) equity; (2) economic efficiency; and (3) simplicity, transparency, and administrability. [11] A tax system is generally considered better than alternatives that raise the same amount of revenue if it is more equitable, more economically efficient, simpler for taxpayers to comply with, and easier and less costly to administer. Designing a tax system that is superior on each of these criteria is difficult because the criteria frequently conflict with one another and trade-offs often must be made. For example, a tax system that provides credits to low-income individuals may be judged by some to be more equitable than a system without this feature. However, if including credits makes it necessary for more

[10] GAO, *Tax Policy: Summary of Estimates of the Costs of the Federal Tax System*, GAO-05-878 (Washington, D.C.: Aug. 26, 2005).

[11] GAO, *Understanding the Tax Reform Debate: Background, Criteria, and Questions*, GAO-05-1009SP (Washington, D.C.: September 2005).

individuals to calculate their income and file tax returns, the tax system could become more complex, thus decreasing its transparency to taxpayers and increasing the costs of administration. As noted earlier, in this report we focus on the third of the above criteria.

Like Other Taxes, VATs Have Compliance Risks, Administrative Costs, and Compliance Burden That Increase with the Complexity of the Design

VAT design choices include whether to exempt specific goods and services such as real estate and health care and specific entities such as small businesses, nonprofits, and governments from tax. Such design choices generally result in decreased tax revenue and increased compliance risks.

A Conceptually Simple VAT Design Has Compliance Risks and Generates Significant Administrative Costs and Compliance Burden

Our study countries' experiences with noncompliance suggest that even a conceptually simple VAT would have compliance risks and would generate significant administrative costs and compliance burden. A conceptually simple VAT would have a single rate that applies to all goods and services and is outlined in table 1.[12]

Table 1: Elements of a Conceptually Simple VAT System

Element	Definition
Single tax rate	One rate applies to the tax base.
Broad, nonexclusionary tax base	All goods and services are subject to the VAT, including financial transactions and real estate.
All business, government, and nonprofit entities are taxed	All entities are subject to paying VAT on purchases and required to charge VAT on qualifying sales of goods and services.
Destination principle	Goods and services are subject to taxation in the jurisdiction in which they are consumed. Therefore, imports are subject to VAT in the importing country, and exports are excluded from the domestic tax base.

[12] None of our study countries have a VAT as simple as shown in table 1, but New Zealand's VAT—which has a broad base with few exceptions—is generally considered by VAT experts to have the simplest VAT design among OECD countries.

Element	Definition
Credit-invoice mechanism	Tax calculations are based on valid invoices and sales receipts for each transaction by subtracting the taxes paid on all input purchases from taxes collected on all output sales.

Source: GAO analysis.

Compliance Risks

All of the countries we studied faced compliance risks that are associated with the elements of a conceptually simple VAT. Compliance risks for a VAT can stem from either underpayment of taxes owed on sales, or overstating taxes paid on purchases.[13] Table 2 shows major types of VAT compliance risks for a conceptually simple VAT. Although the countries we studied had VATs that varied in complexity and consequently faced a range of additional compliance risks, they all reported that addressing risks outlined in table 2 is an important part of their overall compliance efforts.

Table 2: Major Types of Compliance Risks in a Conceptually Simple VAT System

Compliance risks			
Undercollection of tax due on sales		**Overclaiming of tax paid on inputs**	
Missing trader fraud	A business is created for purposes of collecting VAT on sales and disappears without remitting VAT to the government.	Fraudulent refunds	A business or fraudster submits false returns requesting VAT refunds from the government.
Failed businesses	A business fails or goes bankrupt before remitting VAT collected to the government.	Misclassifying purchases	A business falsely claims input tax credits by misclassifying personal consumption expenses as business expenses.
Underreporting cash transactions	A business either charges a lower, VAT-free price for cash transactions or underreports cash sales and retains VAT collected.	Fictitious or altered invoices	A business creates or alters invoices to inflate the amount of input tax credits they can claim.

[13] Similar compliance risks exist for an income tax stemming from either understating income or overstating deductible expenses.

Compliance risks			
Undercollection of tax due on sales		**Overclaiming of tax paid on inputs**	
Import fraud	A business or individual imports items for personal consumption and under values them for VAT purposes.	Export fraud	A business creates fraudulent export invoices for goods that are not exported to claim input tax credits.

Source: GAO analysis.

The VAT compliance risks in table 2 are shared to varying extents with an income tax or RST. For example, underreporting cash transactions is a compliance issue for the income tax and RST in the United States. Similarly, failed businesses can be a problem if income tax payroll withholdings or RST collected on sales are used to finance business operations rather than being remitted to the government before the business fails.

A VAT's reliance on credits and refunds makes the tax more susceptible than an income tax or RST to the compliance risks of fraudulent refund claims. Fraudulent refund claims could exist under a conceptually simple VAT and are a particular concern for all of our study countries. Businesses in the position of paying more VAT on purchases than they receive through sales are entitled to a refund. Businesses in a legitimate refund position tend to be start-up companies or exporters, neither of whom may have taxable sales. All of our study countries were concerned that illegitimate businesses or fraudsters submitting fraudulent refund claims could result in theft of funds from the treasury through false paperwork. Because of the significance of this threat, our study countries reported that auditing refund claims is an important enforcement activity.

Missing trader fraud would be another problem under a conceptually simple VAT and was another common compliance issue for our study countries. Missing trader fraud is a challenge in a VAT because fraudsters may set up a business for the sole purpose of collecting VAT on sales and then disappear with the proceeds. When a missing trader walks away with the proceeds, the buyer still has an input tax invoice showing VAT paid and is entitled to an input credit. In some countries, imports are particularly susceptible to missing trader fraud, which is discussed in

more detail in appendix V in the context of challenges of carousel fraud in the European Union.[14]

VATs avoid some of the compliance risks of other tax systems. For example, under a RST, sellers must determine whether the buyer is a taxable consumer or has a valid exemption certificate. Improper or fraudulent use of these certificates reduces RST revenue. Under an income tax, businesses must comply with complex depreciation rules, which can result in misclassification of assets and tax calculation errors.

Administrative Costs

The drivers of administrative costs in many tax systems include the number of taxpayers (businesses, individuals, or both) subject to the tax, how often they file returns, and the percentage of taxpayers audited. In the case of a VAT, administration requires the government to process tax returns and provide certain services to businesses. Even a simple VAT warrants education and assistance services, in part, to address compliance risks. Tax administrators also need to spend significant resources on audit and enforcement activities. We estimated in a 1993 report that over 70 percent of annual administrative costs for a VAT would be compliance-related.[15]

Additionally, even in the case of a conceptually simple VAT, a mechanism is needed to assess VAT on imports as they enter the country. In the case of New Zealand, 62 percent of total customs revenue in 2006-2007 was expected to come from VAT on imports. In all of our study countries, the agency responsible for monitoring trade border activity was also responsible for collecting VAT on imports. With the exception of the United Kingdom, this agency was not part of the tax administration agency.

Some data indicate that a VAT may be less expensive to administer than an income tax. HM Revenue & Customs (HMRC) in the United Kingdom estimated in 2006 that collection costs for the VAT were approximately 0.55 percent of revenue collected, compared to 1.27 percent for income tax collection costs. According to European Commission officials, VATs in

[14] Carousel fraud is a form of missing trader fraud that involves a series of contrived transactions, including imports and exports, with the aim of creating large unpaid VAT liabilities and fraudulent VAT repayment claims.

[15] GAO *Tax Policy: Value Added Tax: Administrative Costs Vary With Complexity and Number of Businesses*, GAO/GGD-93-78 (Washington, D.C.: May 3, 1993).

Europe cost between 0.5 percent and 1 percent of VAT revenue collected to administer. In addition, officials at the New Zealand Inland Revenue Department (IRD) told us that administering their VAT has been easier than administering some of their other taxes, including their income tax. For example, only 3 percent of VAT returns are submitted to IRD with errors that require IRD intervention, compared to approximately 25 percent for income tax returns.

Compliance Burden

Under a VAT, as with other taxes, compliance burden is mostly driven by record-keeping requirements, filing frequency requirements, and time and resources to deal with audits. Three studies conducted between 1986 and 1992, the most comparable studies we identified, estimated that compliance burden as a percentage of annual sales by size of business in Canada, New Zealand, and the United Kingdom ranged from approximately 2 percent for businesses with less than $50,000 in sales to as low as 0.04 percent for businesses with over $1,000,000 in sales. The 'fixed cost' nature of many compliance costs associated with a VAT and ensuing economies of scale—whereby average costs fall as business size increases—means that smaller businesses often face a proportionally higher burden than larger businesses in complying with the VAT. Private accounting and tax professionals we spoke with also agreed that as the size of the business grows, the VAT compliance burden decreases per dollar of sales.

Businesses that operate in multiple countries face additional burden, as they would need to understand the rules and rates in each of the countries where they operate. Even if multiple countries had conceptually simple VATs, they would likely have different VAT rates, forms, and rules for remitting VAT to tax authorities. For example, businesses in the European Union may operate in multiple member countries, and therefore would need to register with each relevant tax authority to collect and remit the VAT, increasing compliance burden.

Preventing fraudulent VAT refunds presents a trade-off between minimizing compliance burden and minimizing the risk of issuing a fraudulent refund. Although the risk of fraudulent refunds can be reduced by allowing tax inspectors more time to verify the validity of VAT refunds, legitimate businesses suffer financially if their VAT refunds are delayed. Businesses can face a competitive disadvantage and cash flow difficulties if valid VAT refunds are not paid promptly. In the countries we studied, tax administrators had a service standard for a specified number of days to process and pay VAT refunds before they were required to pay the

business interest on the refund request. Some examples are shown in table 3.

Table 3: VAT Refund Timing and Performance for Three OECD Countries

	Australia[a]	Canada[b]	New Zealand[b]
Days allowed for returns and refund processing	14	21	15
Percent of refunds processed on time	93.6	98	96.2

Sources: Australian Taxation Office; Canada Revenue Agency; New Zealand Inland Revenue Department.

[a] Data are from tax years 2006-2007.

[b] Data are from tax years 2005-2006.

The compliance burden on businesses may be partially offset by certain features of a VAT. Businesses that usually operate in a net debit position, meaning they remit VAT to the government at each reporting period, have cash flow benefits for the period of time between VAT collection and remittance. A 1994 study by the National Audit Office in the United Kingdom estimated that the cash flow benefit of the VAT reduced the overall gross compliance burden by almost 40 percent. Some VAT experts have also suggested that VAT requirements can have a positive effect on small businesses by forcing the businesses to improve their internal accounting and record-keeping.

Adding Complexity through VAT Preferences, Including Exemptions, Exclusions, and Reduced Rates for Goods and Services, Decreases Revenue and Generally Increases Compliance Risks, Administrative Costs, and Compliance Burden

All of the countries we studied have added complexity to their VAT designs, mainly through the use of tax preferences. Tax preferences—also called tax expenditures—result in foregone tax revenue due to preferential provisions that generally shrink the tax base. Such preferences can also exist in other tax systems, such as income taxes or RSTs. Countries' use of preferences—such as exemptions and reduced rates— generally results in reduced revenue and greater compliance risks, administrative costs, and compliance burden.[16] However, some preferences, such as thresholds for businesses, may not increase administrative costs and compliance burden because they reduce the number of entities subject to VAT requirements. Additionally, in most study countries, certain financial services and real estate transactions are exempt for administrative purposes. Table 4 describes some VAT design choices and their application in our five study countries.

Table 4: VAT Design Choices and Their Use in Study Countries

Design choice		Definition	Study country use of design choices[a]				
			Australia	**Canada**	**France**	**New Zealand**	**United Kingdom**
Tax base	**Exempt** good or service (input taxed)	Exempt goods and services are not charged VAT when sold. Businesses that sell exempt goods or services neither collect VAT on the sale nor recover VAT paid on inputs.	5 categories Example: Residential rent	16 Example: Legal aid	18 Example: Hospital and medical care	4 Example: Donated goods and services sold by a nonprofit organization	21 Example: Education
	Exclude good or service (zero-rate or tax free)	Zero-rated goods are wholly excluded from the tax base. Businesses apply a zero rate to the sale of the good or service and reclaim VAT paid on inputs.	13 categories Example: Child care	7 Example: Basic groceries	0	4 Example: Certain sales of gold, silver, or platinum	13 Example: Children's clothing

[16] In some instances where an exempt good or service is used in the production of a taxable good or service, exemptions can produce a cascading effect, whereby a good or service is sold with an imbedded tax in the price, resulting in a tax on the tax. In this case, the exemption may lead to an increase in tax revenue.

Design choice		Definition	Study country use of design choices[a] Australia	Canada	France	New Zealand	United Kingdom
	Exempt businesses (thresholds)	Thresholds are a minimum level of sales activity a business can generate before being required to collect and remit the VAT. In practice, thresholds exempt smaller businesses from the VAT system.	A$75,000[b]	Can$30,000	€76,300	NZ$40,000	£64,000
			$53,426 USD[c]	$24,406	$85,995	$27,038	$103,243
Tax rate	**Multiple tax rates**	Multiple tax rates include a standard rate and one or more other non-zero rates that are applied to specific goods or services. Typically higher rates are typically applied to luxuries and reduced rates are often applied to necessities.	10% standard rate	5%	19.6%	12.5%	17.5%
			N/A reduced rates	N/A	5.5% 2%	7.5%[d]	5%

Sources: OECD, GAO analysis.

[a]For a list of which goods and services are subject to exemption, zero rating or reduced rating, see appendix II.

[b]The thresholds listed are the standard threshold for each country as of January 1, 2008 and are expressed in each country's domestic currency. Some countries have other thresholds that apply to specific types of organizations, such as nonprofit organizations.

[c]Thresholds shown in 2008 U.S. dollars were calculated using purchasing power parity conversion rates.

[d]Long-term stays in a commercial dwelling, such as a hotel or nursing home, are taxed at the standard rate on 60 percent of the total sale, making an effective reduced rate of 7.5 percent.

An exempt good or service is not taxed when sold and businesses that sell exempt goods or services cannot claim input tax credits for inputs used in producing the exempt output. By exempting a good or service, the government still collects tax revenue throughout the other stages of production because only the exempt sale is not taxed. Tax is paid and collected on inputs. On the other hand, excluding a good or service, more commonly referred to as zero rating, removes it from the tax base by charging an effective tax rate of zero on the final sale to the consumer. For goods and services that are zero-rated, VAT that was paid in the production of a good or service that is not subject to VAT when sold to the final consumer can be fully recovered through input tax credits. As a

consequence, no net VAT revenue is actually collected by the government from the sale of zero-rated goods and services.

A threshold is a type of exemption that excludes certain businesses from collecting and remitting the VAT and from being able to claim input tax credits. Businesses with sales below the threshold do not charge VAT on their sales and do not claim input tax credits for VAT paid on purchases. Businesses with annual sales above the threshold level are required to register with the tax agency, and collect and remit the VAT.

Countries Vary in the Application of VAT to Specific Sectors, Including Food, Health Care, the Public Sector, Financial Services, and Real Estate

In our study countries, some economic sectors, such as certain consumer essentials like food and health care and public sector organizations are often provided VAT preferences because of social or political considerations. Other sectors, such as financial services, insurance, and real estate, are provided exemptions or exclusions because they are inherently hard to tax under a VAT system. Tables 5 through 9 show how each of our study countries has applied a VAT to various economic sectors.

Table 5: VAT Treatment of Select Consumer Essentials—Food and Health Care

	Australia	Canada	France	New Zealand	United Kingdom
Food	Basic and unprocessed food is zero-rated.	Basic groceries are zero-rated.	Most food and nonalcoholic beverages are taxed at the reduced rate of 5.5%.	Food is taxed at the standard rate of 12.5%.	Food is zero-rated.
Health Care	Most health care is zero-rated.	Medicines and medical devices are zero-rated. Medical and hospital care are exempt.	Medicines are subject to a reduced rate of either 5.5% or 2.1%. Medical and hospital care are exempt.	Health care is taxed at the standard rate of 12.5%.	Prescription drugs and medicines are zero-rated. Medical and hospital care are exempt.

Sources: OECD, GAO Analysis.

According to some VAT experts we spoke with, consumer essentials, such as food and health care, are often provided VAT preferences for social policy reasons. Study country data indicate that zero-rating basic groceries and food reduced VAT revenues by approximately 11 percent in Canada and 12 percent in the United Kingdom in 2004. Another way Canada offsets the burden of the VAT on low-income households is through rebates that are administered through the income tax system, whereby individuals or families with income that falls within certain limits receive quarterly payments aimed at relieving their overall VAT burden.

Table 6: VAT Treatment of Public Sector, Nonprofit, and Charitable Entities for Selected Countries

	Australia	Canada	France	New Zealand	United Kingdom
Public sector entities (including subnational governments)					
	VAT treatment of goods and services is the same as the private sector.	Partial exemptions applied depending on goods and services supplied. Subnational governments are granted a full to partial rebate of input taxes paid on exempt sales depending on the type of organization.[a]	Complex rules apply when determining whether certain goods or services are taxable or exempt when provided by the public sector.[b] VAT rules in EU countries must follow the VAT 6th Council Directive.[c] Partial rebates of input taxes paid on certain exempt activities.	VAT treatment of goods and services is the same as private sector.	Complex rules apply when determining whether certain goods or services are taxable or exempt when provided by the public sector.[b] VAT rules in EU countries must follow the VAT 6th Council Directive.[c] Local authorities eligible for rebates on certain exempt activities.
Nonprofit and charitable organizations					
	VAT treatment of goods and services is the same as the private sector. Subject to a special registration threshold of A$150,000 (US$106,853). Certain activities, such as sale of donated or undervalued goods and services, are zero-rated.	Partial exemptions applied depending on goods and services supplied. Subject to a special registration threshold of Can$50,000 (US$40,676). Qualifying organizations are entitled to a 50 percent rebate for input VAT for exempt activities.[a]	Exemptions granted for certain goods and services such as health care and education.	VAT treatment of goods and services is the same as the private sector. Certain activities, such as sale of donated or undervalued goods and services, are exempt.	Exemptions granted for certain goods and services such as health care and education.

Source: GAO analysis of information from selected countries and academic research.

[a]Canada's treatment of the public sector and nonprofits is similar to that of Australia and New Zealand; however, unlike those countries Canada exempts large sectors of the economy, such as health care and education. It provides rebates to certain subnational and nonprofit entities to offset some of the VAT paid on goods and services purchased to provide these exempt activities.

[b]Public bodies are required to charge VAT on business sales, which are sales that are determined to be competing with the private sector. According to Schenk, Oldman, *Value Added Tax: A Comparative* Approach, 2007, and Note from the *National Audit Office of the United Kingdom: Value-added Tax in the Public Sector* much of the complexity in applying VAT to the public sector in EU countries occurs when differentiating between business and nonbusiness activities of public sector entities.

[c]State, regional and local government authorities in EU countries do not charge VAT on their supplies of goods and services, except where it would lead to significant distortions of competition, or when the government carries out certain specified activities such as the supply of telecommunication services.

In many cases, the goods and services supplied by public sector, nonprofit, and charitable organizations are treated as final consumption by the organization itself rather than consumption by consumers. Consequently, these entities often charge no VAT on outputs but pay VAT on purchases. As described below, the treatment is sometimes due to the lack of a transaction and sometimes because of choices to exclude socially desirable goods or services from tax. The activities of all these entities can, typically, be placed in one of the three following categories:

Transfer payments redistribute income and wealth. Such transfers do not involve a sales transaction, and therefore, do not constitute a taxable supply of a good or service. However, public sector or nonprofit organizations that manage these transfer mechanisms would, absent a VAT preference, pay VAT on their acquisition of taxed goods and services.

Provision of goods and services that is not transaction-based often occurs when it is difficult or impossible to measure consumption by the individual. Examples of these types of goods and services include national defense, street lighting, and environmental protection. Like transfer payments, the purchases made to produce these goods and services are measurable and would be subject to VAT, absent VAT preferences.

Provision of goods and services that is transaction-based includes toll roads, libraries, museums (when entrance fees are charged), electric and water utilities, postal services, and health care and education services. In some cases, such goods and services may not be taxed because they are seen as socially desirable. In other cases, they may be taxed in order to avoid unfair competition with other entities.

The study countries differ in how they treat the public sector under the VAT. For example, France and the United Kingdom exempt governments, taxing only those activities that are in direct competition with commercial businesses. They apply the basic rule that if the activity is taxable when it is provided by private firms, it should similarly be taxable when provided by governmental units. New Zealand and Australia, on the other hand, tax

the purchase and sale of all goods and services by governments, unless explicitly exempted or zero-rated.

There are some differences in how the study countries treat the nonprofit sector under the VAT. Unlike Australia and New Zealand, Canada, France, and the United Kingdom exempt certain goods and services that nonprofit organizations often provide such as education and health care. Therefore, these organizations must pay VAT on purchases but are unable to charge VAT on sales. A rebate mechanism is used in Canada, through which qualifying organizations recoup fifty percent of the VAT paid on purchases used to produce exempt goods ands services. For additional specific examples of Australia and Canada's treatment of government entities and nonprofit organizations, see appendix III.

Table 7: VAT Treatment of Financial Services and Insurance

	Australia	Canada	France	New Zealand	United Kingdom
Financial services	Financial services are exempt. Australia has apportionment guidance for banks.	Financial services are exempt. Canada has proposed apportionment guidance for banks. Québec's provincial VAT zero rates financial services.	Financial services are exempt.	Certain business-to-business financial transactions are zero-rated. Other financial services are exempt. New Zealand has apportionment guidance for banks.	Financial services are exempt.
Insurance and reinsurance	Insurance and reinsurance are taxed at the standard rate of 10%, except health and life insurance which are zero-rated.	Insurance and reinsurance are exempt.	Insurance and reinsurance are exempt.	Life insurance and reinsurance are exempt. All other insurance policies are taxed at the standard rate of 12.5%.	Insurance and reinsurance are exempt.

Source: OECD, and GAO analysis.

[a]Apportionment guidance for banks and other financial services firms by tax authorities are usually approved methodologies for calculating the portion of the bank's or financial services firm's total input taxes paid that they can claim as credits.

Financial services and insurance are generally considered hard to tax because it is difficult to distinguish between the provision of a service (consumption) and return on investment. For example, deposits represent deferred consumption and interest earned on a deposit account is generally considered return on investment, not consumption.[17] The

[17] Because interest is not consumption, it is not considered to be a tax preference under a consumption tax.

intermediary services of a bank are consumed and should be subject to VAT; however, there is often no explicit charge for the financial intermediation services that are provided. Instead, banks often pay depositors less interest than they charge borrowers and the difference covers the cost of the intermediation service. Some of the countries studied exempt financial services and have apportionment method guidelines for banks to recover some of the VAT paid on inputs. New Zealand allows zero rating of business-to-business financial services. The United Kingdom estimated the exemption of financial services and insurance reduced net VAT revenues collected by approximately 5 percent in 2006. For additional information about financial services and insurance, see appendix IV.

Table 8: VAT Treatment of Real Estate

	Australia	Canada	France	New Zealand	United Kingdom
Commercial property	Sales and leases of commercial property are taxed at the standard rate of 10%.	Sales and leases of commercial property are taxed at the standard rate of 5%.	Leases of commercial property are taxed at the standard rate of 19.6%. Sales of commercial property are exempt.	Sales and leases of commercial property are taxed at the standard rate of 12.5%.	Newly constructed commercial property is taxed at the standard rate of 17.5% for the first 3 years from completion date. Sales and leases of existing commercial property are exempt, but the supplier retains the option to tax.
Residential property	Newly constructed residential property is taxed at the standard rate of 10%. Sales and leases of existing residential property are exempt.	Newly constructed or substantially renovated residential property is taxed at the standard rate of 5%. Sales and leases of existing residential property are exempt.	Sales of existing residential property are exempt. Sales of newly constructed (in past 5 years) or substantially renovated residential property are taxed at the standard rate of 19.6%. Leases of residential property are mostly exempt.	Leases of residential property are exempt. Sales of residential property by registered entities are taxed at the standard rate of 12.5%.	Sales of residential property are zero-rated. Leases of residential property are exempt.

Source: OECD, and GAO analysis.

Real estate, like other long-lived assets, is considered hard to tax under a VAT. Long-lived assets, such as residential housing, are a mix of consumption, as the residence is currently lived in, and savings, as the residence provides future housing consumption. Since consumption

occurs over many years, taxing the full price of a new house would amount to taxing the present value of the stream of future housing services the house will provide. Consequently, taxing the full price of future sales of existing residential houses without providing input tax credits to homeowners would result in double taxation on the house. In such a situation, exempting the sale of existing residential property would not be a tax preference under a VAT.

Tax administrators and tax professionals we spoke with in Australia and New Zealand told us that they face compliance challenges with real estate transactions because the rules are complex and some businesses are unfamiliar with them, as real estate transactions are not a part of their normal business operations. A particular challenge arises with dual use properties, such as a building with both commercial and residential space, that are subject to different sets of VAT rules. According to IRD officials in New Zealand, one quarter of all tax and VAT discrepancies involving small and medium businesses in 2007 arose from property transactions. For additional information on real estate, see appendix IV.

Table 9: VAT Treatment of Select Socially Desirable Goods and Services

	Australia	Canada	France	New Zealand	United Kingdom
Books	Books are taxed at the standard rate of 10%.	Books are taxed at the standard rate of 5%. (The Québec provincial VAT effectively zero rates books.)	Books are subject to a reduced rate of 5.5%.	Books are taxed at the standard rate of 12.5%.	Books are zero-rated.
Fee-for -service cultural and religious services	Cultural services are taxed at the standard rate of 10%, with the exception of religious services which are zero-rated.	Cultural and religious services are exempt.	Cultural and religious services are exempt.	Cultural and religious services are taxed at the standard rate of 12.5%.	Cultural and religious services provided by public and nonprofit organizations are generally exempt.

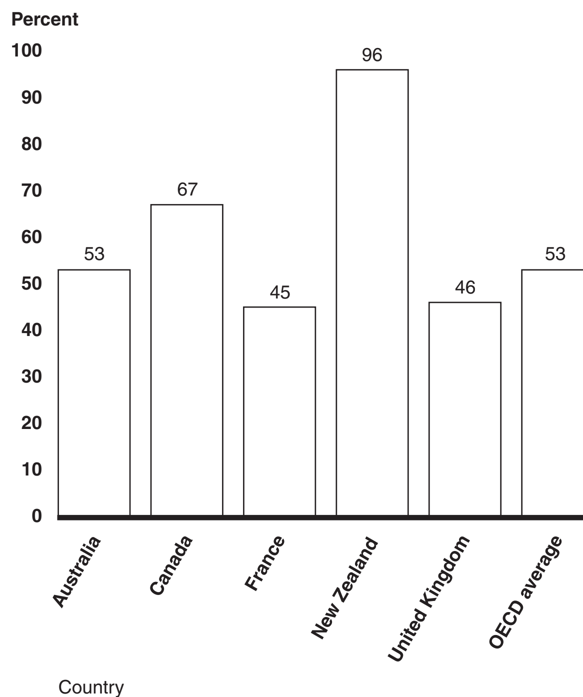
Source: OECD, and GAO analysis.

Similar to preferences in an income tax that are intended to promote certain activities, countries can exempt, exclude, or subject to a reduced rate goods and services that are deemed socially desirable. New Zealand does not exempt or zero rate cultural services, including religious services, but often these services do not involve sales and, therefore, no VAT would be charged.

Tax Preferences Decrease VAT Revenue in the Study Countries

One measure of VAT performance being developed by the OECD is the C-efficiency ratio (CER). The CER is expressed as a percentage and is calculated by dividing total VAT revenues by national consumption times the standard rate for each country. The CER provides an indication of how much of potential VAT revenue is actually collected, so it reflects the extent to which both tax preferences and noncompliance reduce the efficiency. A high CER is usually indicative of a VAT with few preferences and high compliance, while a low CER usually suggests an erosion of the tax base through some combination of preferences and low rates of compliance. Figure 4 shows the CERs for our five study countries and the average among OECD countries.

Figure 4: C-Efficiency Ratios of Five Study Countries and the Average for OECD Countries



Source: OECD.

Of all of Canada's and the United Kingdom's tax preferences, zero rating basic groceries and food have had the largest impacts on VAT revenues, and therefore the CER. For example, in 2004-2005, zero rating food in the United Kingdom cost approximately £10.2 billion, representing a reduction of 12 percent in total VAT revenue collected that year. In Canada, zero

rating basic groceries in 2004 was estimated to cost approximately Can$3.7 billion, reducing VAT revenues by approximately 11.3 percent that year. New Zealand's CER is higher than average likely due to the VAT's broad base and few tax preferences. Although tax preferences are a large contributing factor to the CER, the CER should be viewed with caution as other factors contribute to the overall calculation, primarily revenue loss from noncompliance. Furthermore, not all VAT preferences negatively impact the CER. For example, although exemptions generally decrease the CER by decreasing the tax base, the CER may increase due to tax cascading from exemptions, which increases overall VAT revenue collection.

VAT Preferences for Goods and Services Generally Increase Compliance Risks, Administrative Costs, and Compliance Burden

Although we were not able to find any direct quantitative evidence of how VAT complexity impacts administrative costs, tax officials and VAT experts said that complexity increases administrative costs and compliance burden and creates opportunities for noncompliance. VAT preferences introduce rules that apply only to a specific set of goods or services. Such preferences create the need to define the boundaries between goods and services getting different tax treatments, and may result in businesses misclassifying certain goods or services purchased or sold and reducing VAT revenue. Preferences that add complexity to the tax code also increase the time and resources needed for audits and education activities. Exemptions, reduced rates, and zero-rating also add to compliance burden by increasing the time and resources businesses must spend on accounting and record-keeping activities, in order to categorize their sales and purchases as fully taxable, reduced rated, zero-rated, or exempt. In the case of a business making both taxable and exempt sales, the business must also apportion its use of inputs and claim input tax credits only for inputs in taxable sales.

In Canada, basic groceries are zero-rated. Basic groceries include unflavored milk, bread, and other nonprepared foods, but do not include items such as snacks. These distinctions between goods are not always intuitive. Changes in ingredients, packaging, and temperatures can lead to different VAT treatment. In Canada salted peanuts are taxable and plain peanuts are zero-rated. The sale of five or fewer donuts in a single transaction is taxable, but the sale of six or more is zero-rated. In Australia takeout food is taxable if it is served as a single item for consumption away from the place of purchase. However, hot fresh bread is not subject to VAT unless it has a sweet filling or coating, or is sold in combination, such as sausage and onion on a slice of bread. Businesses that sell groceries have the additional burden of correctly categorizing their sales and face the compliance risk of charging the wrong VAT rate on their

sales. The Australian Taxation Office and Canada Revenue Agency spend administrative resources on maintaining the list of groceries that fit into the definition of zero-rated sales, and on enforcement efforts to ensure grocers and other businesses are properly charging the VAT on appropriate sales. Like the VAT, a RST also has similar classification problems when certain goods and services are exempted.

For another example, in France catered food is subject to a reduced rate while restaurant food is taxed at the standard rate. Restaurants have the additional burden of categorizing their sales. According to French tax administrators, some restaurants overstate the catering portion of their business to fraudulently reduce their VAT liability. French tax administrators address this compliance risk through increased scrutiny of VAT returns filed by restaurants.

Thresholds

Businesses below a threshold that do not register with tax authorities pay VAT on inputs but do not collect VAT on sales. A threshold exempts certain categories of businesses from the VAT and creates compliance risks by making distinctions between businesses. Businesses with sales slightly above the threshold may have an incentive to underreport sales activities to avoid being required to collect and remit VAT. But unlike other VAT preferences, a threshold can decrease administrative costs and compliance burden. Since thresholds reduce the number of businesses in the system, they reduce the number of returns the tax agency processes, the number of businesses seeking services, and the number of businesses that are subject to audit. A high threshold can eliminate a large amount of VAT administrative costs while retaining much of the VAT revenue. Small businesses, by their nature, would generate a relatively small portion of revenue in the countries we studied, but account for a large portion of VAT returns filed. Smaller businesses often face a proportionally higher burden than larger businesses in complying with the VAT. Exempting them from VAT collection and filing requirements reduces the net burden a VAT imposes.

Although thresholds are intended to keep small businesses outside the VAT system, all of the countries we studied allow businesses with sales below the threshold to voluntarily register to collect and remit the VAT. Table 10 shows the percentage of registered businesses in Australia and Canada that are below the threshold but voluntarily register for the VAT. Tax administrators in Australia and New Zealand told us that businesses volunteer for a number of reasons, including wanting to claim input tax credits or misunderstanding the threshold requirements. In Australia, approximately one third of all VAT-registered businesses are below the

stated threshold. They voluntarily register so that they can do business with larger companies. Tax officials told us that many larger companies will only conduct business with other VAT-registered businesses to make record-keeping easier. By purchasing goods or services only from businesses that charge VAT, these larger businesses can calculate input tax credits simply as a fixed percentage of all input costs. If they were to also purchase from a business that does not charge VAT, they must maintain more detailed records to calculate which inputs carry input tax credits and which do not.

Table 10: VAT-registered Businesses with Sales below the Threshold

	Australia[a]	Canada[b]
Threshold (in domestic currency)	A$75,000	Can$30,000
Total VAT registered businesses	1,963,907	2,834,360
Percentage of registered businesses with sales below the threshold	31.7%	34.5%

Sources: Australian Bureau of Statistics; Canada Revenue Agency.

[a]Data as of June 2006.

[b]Data as of 2004.

Risk-based Audit Selection

All of the countries we studied devote a significant amount of resources to audit activities and all used a risk-based audit selection approach in the administration of their VAT. Risk-based audit selection is intended to assist tax authorities with targeting administrative resources on noncompliant businesses and minimizes compliance burden on compliant businesses by reducing their chances of facing an audit. Generally, risk is assessed based on automated processes that compare the values on the VAT return to a series of thresholds, supplemented by information provided by business's interactions with tax administrators. For example, many of our study countries told us that refunds above a certain threshold amount are automatically flagged as risky. The automated process is adjusted periodically to account for changes in compliance trends or VAT filing behavior. Several of our study countries calculate normal VAT activity averages and limits by industry to further strengthen risk assessment tools. For example, if most restaurants remit taxes each time they file a VAT return, a restaurant that requests a VAT refund will receive extra scrutiny. French officials told us that approximately 88 percent of the returns identified as risky and audited are ultimately reassessed.

Because one of the major risks in VAT administration is issuing undeserved refunds, tax administrators pay particular attention to refund

requests. Canadian tax administrators told us that if a fraudulent refund is paid, the refund recovery rate is close to zero if the error is later identified. When a refund request triggers an audit, the refund payment is delayed. This payment delay imposes additional burden on compliant businesses, but allows tax administrators more time to prevent fraudulent refunds from being issued.

Tax administration officials in Australia and Canada told us that preventing fraudulent refunds is their primary enforcement focus. Australia anticipated performing over 84,000 audits, including desk and field audits, on the approximately 2.1 million requests for VAT refunds in 2004-2005. Table 11 shows the average percentage of gross VAT collections that is paid back to businesses in the form of refunds in some of our study countries from 1998 to 2001.

Table 11: Average VAT Refund Level as a Percentage of Gross VAT Collection (1998-2001)[a]

	VAT refunds as a percentage of gross VAT collection
Canada	50.3%
France	21.2
New Zealand	35.5
United Kingdom	40.9

Sources: International Monetary Fund

[a]Australia is not included in the table because it did not introduce a VAT until July 1, 2000.

Accounting and Filing Requirements

Tax administrators and VAT experts in several of our study countries told us that making the filing of forms and accounting for VAT easier on businesses can improve compliance. All of our study countries offer small businesses options in how often they file their VAT returns or how they calculate their VAT liability to address the differing administrative needs of businesses of various sizes. Large businesses are often required to file and remit VAT monthly, but small businesses often have the option to file and remit less frequently, such as quarterly or annually. Longer filing periods often reduce the burden on small businesses, while shorter filing periods for larger businesses maintain a steady monthly VAT revenue flow. By allowing small businesses to file VAT returns less frequently than larger businesses, tax administrators can save processing costs by reducing the number of returns they receive each month.

Tax administrators in all of our study countries also allow small businesses to use modified accounting methods to calculate their VAT

liabilities as a way to further reduce compliance burden. Australia, Canada, and New Zealand offer three accounting options to address the diverse needs of businesses of different sizes, while the United Kingdom and France also offer more than one accounting option to small businesses. Based upon the amount of annual sales, businesses may select the accounting option that creates the least amount of bookkeeping and compliance burden. By allowing certain businesses to use methods that approximate their tax liabilities instead of calculating it for every transaction, they may be able to decrease their compliance burden. Tables 12 and 13 show the accounting options available to businesses in New Zealand and Canada.

Table 12: VAT Accounting Options in New Zealand

New Zealand	Accounting options and description		
	Invoice basis	**Payments basis**	**Hybrid basis**
	GST is accounted for when an invoice is issued or payment is made, whichever comes first.	GST is accounted for in the taxable period in which a payment is made or received.	GST is accounted for by using the invoice basis for sales and payments basis on purchases.
Eligible businesses	All	Businesses with annual sales of NZ$1.3 million (US$878,728) or less	All

Source: New Zealand Inland Revenue Department.

Table 13: VAT Accounting Options in Canada

Canada	Accounting options and description		
	Regular method	Simplified method	Quick method
	Businesses collect 5% VAT on eligible sales and pay 5% VAT on eligible purchases. At the end of the reporting period, the businesses net total VAT collected with total input tax credits and remit the difference to the government, or request a refund if they are so entitled.	Businesses collect 5% VAT on eligible sales and pay 5% VAT on eligible purchases. At the end of the reporting period, the businesses multiply eligible expenses by (5/105). This figure is then subtracted from total VAT collected to calculate total VAT liabilities.	Businesses collect 5% on eligible sales and pay 5% VAT on eligible purchases. At the end of the reporting period, businesses total their sales and multiply by a sector-specific rate that is below the standard 5% rate. Businesses are not allowed to claim input tax credits, but the sector-specific rate incorporates the approximate value of input tax credits they would otherwise claim.
Eligible businesses	All	Businesses with less than Can$500,000 (US$406,762) or less in sales in the latest fiscal year	Businesses with less than Can$200,000 (US$162,705) or less in annual sales

Source: Canada Revenue Agency.

Import Deferral Program

Australia and New Zealand have programs that allow some importers to defer VAT payment on imports, reducing compliance burden. In both Australia and New Zealand, the customs agency is responsible for collecting VAT on imports. With a deferral program, importers can establish a relationship with the customs and revenue agencies and pay their VAT liabilities to the revenue agency during normal filing intervals instead of paying customs on a per shipment basis. Deferral programs decrease some administrative costs and compliance burden by reducing the number of individual payments made by the business to the customs agency. Businesses must apply for this program, and use of the deferral scheme is limited to businesses with an established history of compliance with the tax administration agency.

Reverse Charge on Intangible Imported Goods and Services

Many countries, including all of our study countries, use a reverse charge mechanism to tax certain imported goods or services that are otherwise difficult to tax. For example, imported intangible services, such as marketing or accounting, do not physically cross borders where a customs agency would normally assess VAT. A reverse charge requires the importing business to self-assess the VAT on these imported goods or

services. The self-assessed VAT generally is offset by an input tax credit claim if the good or service was used in the production of other taxable sales. Our study countries use the reverse charge mechanism for several goods and services, including intangible property, or advertising, consulting, accounting, and telecommunication services. The United Kingdom uses a specific reverse charge mechanism for cellular phones and computer chips to address the risk of carousel fraud, which is discussed further in appendix V.

Integrated Tax System

Logically, integrating tax administration and compliance activities across taxes, such as joint administration of a VAT and an income tax, would be beneficial both to tax administrators and businesses. Integrated tax administration would seem to reduce both administrative costs and compliance burden by decreasing the number of interactions between the business and the tax administrators and improve compliance by increasing the amount of information available to tax auditors for review. In an integrated system, a business would face a single audit for all taxes, whereas in a nonintegrated system a business could face a separate audit for each tax for a given tax year.

The countries we studied faced specific challenges that have prevented them from either fully integrating their tax administration or from systematically sharing information across tax programs. Until recently, Canada could not share information automatically across tax programs due to the limitations of its legacy computer systems. Generally, skill sets required by VAT auditors and income tax auditors are different, making separate audits sometimes a more practical approach. Canadian and French tax auditors are now starting to perform joint audits on a limited basis. For example, in Canada corporations and proprietorships reporting less than Can$4 million (US$3.3 million) in revenue are subject to a joint income tax and VAT audit.[18] New Zealand has been undertaking integrated audits of VAT and other taxes since 1990.

VAT Compliance Estimates

All of our study countries dedicate significant administrative resources to addressing VAT compliance risks, but actual or estimated compliance rates generally are not well documented. Of the countries we studied, only the United Kingdom annually estimates a tax gap and VAT revenue losses due to noncompliance. The United Kingdom estimates a VAT Theoretical

[18] Wherever we provide foreign currency values converted to U.S. dollars, they represent 2008 dollars.

Tax Liability (VTTL) using national consumption data, and compares it to actual VAT receipts. The difference is considered to be the VAT tax gap. From 2002 to 2007, the VAT tax gap ranged from 12.4 percent to 16.1 percent of the VTTL.[19] Other European countries have made less rigorous estimates of VAT losses which indicate that VAT losses from fraud are about 10 percent of total VAT gaps. For comparison, the 2001 gross tax gap in the United States was estimated as 17 percent of federal revenues.

Of the total VAT tax gap in the United Kingdom for 2006-2007, up to 16 percent is estimated to be attributed to Missing Trader Intra-Community (MTIC) fraud, which includes acquisition fraud and carousel fraud. Acquisition fraud occurs when a business imports a good and goes missing without paying the required VAT. Carousel fraud, a problem that is mostly contained to the European Union, is an extension of acquisition fraud whereby the original imported good is sold multiple times in the importing country before being exported again. The same goods can go through the carousel multiple times. Carousel fraud is difficult to detect because of the number of transactions involved and the frequent use of small, high value goods, such as cellular phones or computer chips. See appendix V for additional discussion of carousel fraud.

Tax officials in our other study countries told us they do not estimate VAT gaps the way the United Kingdom does, but Canadian tax administrators do have some VAT compliance measures. Some measures of VAT compliance in Canada, defined as registering as required, filing all forms on time, paying all VAT amounts when due, and reporting full and accurate information, are over 90 percent. New Zealand tax officials stated that while they do not measure a VAT gap, they estimate their VAT compliance problems are no worse than those of Australia, Canada, or the United Kingdom.

[19] HMRC's estimates of the VTTL are based on the best available data at the time the estimates are calculated, and are therefore subject to a broad range of uncertainties. HMRC's analysis concludes that the margin of error in these estimates could be as high as +/- 4 percentage points.

In Canada—One of Several Federal Countries with a VAT—Tax System Complexity and Compliance Burden Vary among Provinces Depending on Level of Coordination with a Federal VAT

Of the eight federal countries we identified with national VATs, Canada is the only one with multiple arrangements for administering the federal and subnational consumption taxes. Table 14 describes the VAT administrative arrangements for several countries with national VATs and subnational governments.

Table 14: National and Subnational VATs in Federal Countries

Country	National VAT	Subnational consumption tax	Administrative arrangement
Argentina	Yes	Yes	VAT administered at the national level alongside state sales taxes with states receiving a share of the national VAT revenue.
Australia	Yes	No	VAT administered at the national level with all revenue going to the states.
Austria	Yes	No	VAT administered at the national level with revenue shared by the national and state governments.
Belgium	Yes	No	VAT administered at the national level.
Brazil	Yes	Yes	VAT administered at the national level alongside state sales taxes.
Canada	Yes	Yes	Four administrative arrangements that include a VAT administered at the national level alongside provincial VATs or RSTs.
Germany	Yes	No	VAT administered at the national level with revenue shared by the national and state governments.
Switzerland	Yes	No	VAT administered at the national level.

Source: Bird and Gendron, University of Toronto.

As the table shows, some countries administer a federal VAT and then distribute all or a portion of the tax revenues collected to subnational jurisdictions, such as states and territories. For example, Australia has a federal VAT, but almost all revenues from that tax are distributed to the Australian states and territories. The VAT in Australia replaced a series of inefficient state taxes that were thought to be impeding economic activity. The federal and subfederal governments agreed that the federal government would administer the VAT on behalf of the states and territories. In exchange for federal VAT administration, the states and territories reimburse the federal government for the costs incurred for

administration, but otherwise receive almost all of the revenues collected. Changes in the base and rate or amendments to the original agreement require unanimous support of the states, a federal government endorsement, and agreement by both houses of Parliament.

Canada is the only country that we studied that has both a federal VAT and subnational consumption taxes. Tax system complexity and compliance burden vary among the provinces in Canada, depending on the level of coordination between the federal VAT and subnational consumption taxes. Canada has four different arrangements with the provinces for administering the federal VAT and provincial consumption tax systems:

- separate federal and provincial VATs administered by a province (Québec),
- joint federal and provincial VATs administered by the federal government,
- separate federal VAT and provincial RSTs administered separately, or
- federal VAT only.

Table 15 shows the main features of Canada's four arrangements for VAT administration.

Table 15: Summary of Federal/Provincial Consumption Tax Arrangements

Consumption tax arrangement	Jurisdiction & rate	Type of taxes	Administration
Québec sales tax	• Québec – 7.5% (Applied to VAT inclusive price)	Separate federal VAT and provincial VAT	Provincial
Harmonized federal VAT and provincial VATs	• Newfoundland & Labrador – 8% • New Brunswick – 8% • Nova Scotia – 8% (Combined VAT/HST – 13%)	Joint federal and provincial VATs	Federal
Federal VAT alongside provincial sales taxes	• British Columbia – 7.5% • Manitoba – 7% • Ontario – 8% • Prince Edward Island – 10% • Saskatchewan – 7%	Separate federal VAT and provincial RST	VAT: Federal RST: Provincial

Consumption tax arrangement	Jurisdiction & rate	Type of taxes	Administration
Federal VAT only	Provinces • Alberta – N/A Territories • Northwest Territories – N/A • Yukon Territory – N/A • Nunavut – N/A	Federal VAT	Federal

Source: GAO analysis.

Québec Sales Tax Arrangement (QST)

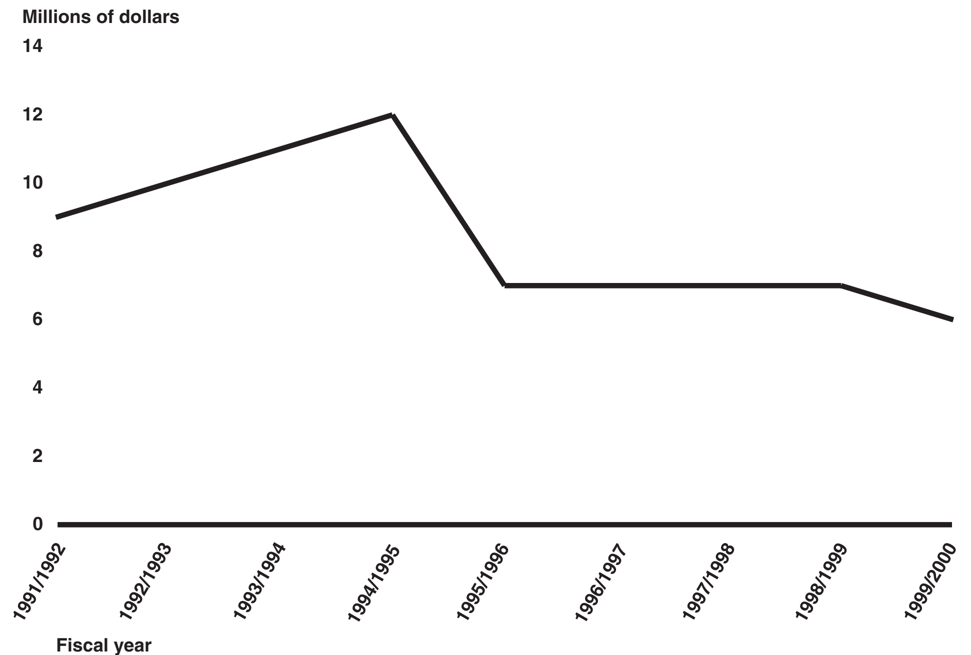
In 1992, the government of Québec agreed to administer the federal VAT on behalf of the federal government alongside a provincial VAT, called the QST. The federal government and Québec split the cost of joint administration. Although allowed some flexibility, Québec must follow the same basic rules that the federal government follows when selecting businesses for audit; conducting enforcement activities; and applying registration, payment, and dispute resolution procedures. This ensures consistent treatment of businesses regardless of geographic location in Canada.

The QST and VAT have almost the same tax base. However, there are a few key differences which create some additional administrative costs and compliance burden because affected entities have to comply with two sets of requirements when determining tax liabilities. For example, certain financial services that are exempt from the federal VAT are zero-rated under the QST. Québec also requires businesses to obtain both a provincial registration number and federal registration number.

Harmonized Sales Tax Arrangement (HST)

Beginning in April 1997, three Canadian Atlantic provinces—New Brunswick, Nova Scotia, and Newfoundland & Labrador—abolished their provincial RST systems and created the HST. The HST was the same as the federal VAT, except a tax rate of 8 percent was added to the federal VAT rate. Currently, the combined tax rate is 13 percent. The federal government agreed to administer the HST at no charge to the three provinces and distribute HST revenues back to the provinces. When the three Atlantic provinces chose to replace their provincial RSTs with the HST, they were able to reduce their tax administration costs. Figure 5 shows the administrative cost reductions achieved in New Brunswick just prior to harmonization. Tax administration costs dropped nearly 43 percent from about Can$11.6 million to just over Can$6.6 million.

Figure 5: Tax Administration Costs in New Brunswick Before and After Harmonization



Source: New Brunswick cost data gathered by Robertson of Fasken Martineau DeMoulin LLP.

However, the three provinces also anticipated a revenue loss because the HST rate of 8 percent was less than the RST rate that had been levied previously. For example, Newfoundland & Labrador had an effective RST rate higher than 12 percent prior to HST implementation. The federal government agreed to pay the provinces a total of Can$961 million over 4 years—Can$349 million in each of the first 2 years, Can$175 million in the third year and Can$88 million in the fourth year—to offset part of the losses in provincial revenues.

Separate VAT and Provincial Sales Tax Arrangement

Five provinces levy RSTs alongside, yet independent of, the federal VAT. Retail businesses that operate within provinces with a RST are required to register for both systems, file returns in both systems, and are subject to separate audits within both systems. There are several notable effects of administering both taxes. Unlike the VAT, very few services are subject to the provincial sales tax. There are also a number of exemptions within the RST system. For example, some provinces do not tax children's clothing, some unprepared foods, or energy resources, such as natural gas. These goods are either fully taxed or defined differently under the federal VAT.

Further, the federal VAT zero rates certain goods or services whereas the RST uses exemptions. This is an important distinction and has administrative and bookkeeping implications. For example, a grocery store would be required to determine which goods are zero-rated under a VAT system, but are exempted under a RST. Under this scenario, the business will have to keep track of purchases and sales and determine separately how they are treated under each tax system.

Some businesses in RST provinces are disadvantaged compared to their counterparts in the HST and QST provinces because they must comply with two consumption tax systems. For example, businesses that operate retail operations in these provinces are required to file both a federal VAT and provincial RST return.

VAT-only Arrangement

Alberta and all three of the Canadian territories do not have a consumption tax at the subnational level. Therefore, purchases in these provinces are only subject to the federal VAT. Businesses that operate in these areas have a smaller compliance burden than those in provinces where a RST is also administered. Tax administration officials told us that one issue that arises from these areas is interprovincial sales, because some Canadians who live in one province will travel to Alberta or the territories to make purchases in order to avoid paying the provincial RST or VAT in their home province. This results in lost tax revenue.

VAT Implementation in Australia, Canada, and New Zealand Built on Preexisting Administrative Structures and Involved Considerable Resources to Educate, Assist, and Register Businesses

Multiple agencies in Australia, Canada, and New Zealand were involved in VAT implementation. Each of these countries also developed multiple strategies for educating and assisting businesses, but getting some to register for VAT in advance of implementation was still a challenge.

Developing the VAT Administration in Several Study Countries Involved Multiagency Coordination, Development of New Policies and Processes, and Additional Staff

VAT implementation in Australia, Canada, and New Zealand involved multiple agencies, the development of new policies and processes, and hiring of additional staff. All three countries built on preexisting administrative structures to initially implement a VAT. Since the 1930s all had a national consumption tax before the VAT was adopted. For example, the Manufacturer's Sales Tax (MST) in Canada was a single-stage sales tax generally applied to the manufacturer's sales price of goods produced in Canada and to the customs value of goods imported into Canada. Wholesalers and retailers would pay the tax when they purchased certain goods.

Building up the administrative structure for the VAT in Australia, Canada, and New Zealand involved coordination among several government agencies. In all three countries this also involved the establishment of interagency committees to facilitate and coordinate implementation efforts. In Canada the former Customs and Excise division was responsible for administering the Excise Tax Act and the Department of Finance was responsible for sales tax policy and legislation. New Zealand's implementation involved coordination among five government agencies. The Ministry of Finance in New Zealand held public meetings and managed correspondence from constituents. The New Zealand Treasury's primary responsibility was the development of VAT policy, while the Inland Revenue Department was responsible for VAT registration and compliance. The Ministry of Social Welfare was responsible for managing the benefit increases associated with VAT implementation and the overall tax reform efforts. The Customs Service was responsible for terminating the wholesale sales tax and collecting VAT on imports. Also during implementation, all three countries gave agencies specific responsibility for monitoring the transition and its impact on consumer pricing. These offices worked to ensure businesses did not artificially inflate prices to take advantage of uncertainty during implementation.

Introduction of the VAT also involved efforts to develop and test forms and returns. According to International Monetary Fund guidance on VAT implementation, development of forms early in the implementation process is important because they are a key part of the education effort. Australia's implementation showed that if VAT implementation also involves an overhaul of business tax payment and filing procedures, new legislation would be necessary and more time would likely be needed for forms development. Australia coupled VAT implementation with new business accounting and reporting requirements that had to be detailed on a Business Activity Statement (BAS). The BAS was intended to capture

information on multiple business taxes in the country. Government officials in Australia told us that the BAS was responsible for the majority of VAT-related compliance burden at implementation due to the increased filing requirements and information reporting. Forms development took about 2 to 3 months in New Zealand, where both the VAT and VAT forms are relatively simple. Canada allocated 12 months to develop, test, print, and distribute its forms.

All three countries had some staff in place for administering the VAT; however, all also hired and trained large numbers of additional staff. For example, Canada hired over 3,900 additional personnel at the time of transition. This more than tripled the total staff previously responsible for administering the MST. Of the staff Canada initially hired, about 1,500 were to perform various educational functions, which included providing walk-in services, seminars, written correspondence, business information sessions, advisory visits, and extensive distribution of printed material. Advisory visits—in which administration officials would travel to specific businesses to educate its employees on the VAT—were continued only through the first quarter after VAT implementation.

Time Taken to Implement VATs Ranged from 15 to 24 Months

The amount of time tax administrations in Australia, Canada, and New Zealand had to implement a VAT ranged from 15 to 24 months due to the varying circumstances leading up to initial implementation in each of these countries. Australia and its states and territories reached agreement on a VAT in April 1999, 15 months prior to the effective implementation date of July 1, 2000. In Canada, much of the planning and early efforts to prepare for VAT implementation occurred before legislation was actually passed. According one Canadian official involved in implementation, planning began nearly 2 years in advance, but Canadian tax authorities had only 2 weeks between final passage of legislation and implementation. New Zealand originally allowed for 18 months between the publication of a policy paper on the VAT and actual implementation. However, because of delays in education activities, implementation was delayed an additional 6 months.

Government Agencies Used a Variety of Methods to Educate and Assist Entities Subject to VAT Requirements

Before entities subject to VAT requirements can be expected to comply, they must know what those requirements are and what they mean to specific economic and industry sectors. For Australia, Canada, and New Zealand, this resulted in the development and administration of extensive education and outreach efforts through a variety of direct and indirect assistance. Although all three countries implemented education and

outreach efforts, Australia's approach is the most recent and provides the most detail on the strategies and programs that were in place.

According to officials involved in the initial implementation of the VAT in Australia, a major part of the education and outreach strategy was to target specific players in the various industry sectors and get them involved in educating others. The Australian government spent approximately A$500 million (US$464 million) on education efforts at transition. Australia established a Start-up Assistance Office within the Department of Treasury to assist small and medium-sized businesses and the community sector in preparing for and implementing VAT requirements. This office established and administered the programs described in table 16.

Table 16: Strategies Used in Australia to Educate and Assist Businesses

Grants to community groups and organizations	Program issued over 220 grants to a variety of community organizations, industry groups, and other organizations that worked with or on behalf of specific economic sectors. For example, grants were given to state chambers of commerce to develop and administer education programs to member businesses.
Advisor education	Program provided a series of tax education classes and seminars to a large network of informal advisors, such as accountants and tax preparers, who could then pass on their knowledge to the businesses or community and educational institutions with which they were affiliated.
Business skills education	Program developed and distributed a range of products and services to interested businesses that would be subject to VAT requirements. This included a telephone helpline, two VAT-specific Web sites, over 16 publications covering many topics of interest to VAT businesses, and specialized assistance to non-English speaking businesses.
Direct assistance to small businesses	Program delivered a A$200 (US$186) certificate to qualifying small business and community groups. The certificate could be redeemed with a registered supplier for goods or services that would assist the registrant in preparing for the VAT. The certificate could be redeemed to provide computer hardware, computer software, stationary, training courses, and financial advice. Over 1.9 million certificates were issued and could be redeemed at over 14,000 suppliers.

Source: GAO analysis of Australian Taxation Office documents.

Industry partnerships were important to the education strategy implemented by the Australian Taxation Office and Treasury. According to Australian officials and others with knowledge of implementation,

education materials produced by industries were well-received by businesses. In addition, industry partnerships established lines of communication that allowed the government to understand industry concerns about the VAT. For example, one concern was about the costs businesses needed to incur to come into initial compliance with the VAT. VAT experts in several of Australia's professional services and accounting organizations told us that corporations with large and diverse inventory items incurred significant transition costs. According to tax administration officials, one benefit of the industry partnership strategy is that many of the partnerships formed during VAT implementation still exist.

Canada also made informing the public about the VAT and registering businesses subject to the tax an important part of the implementation effort. The Canadian Revenue Agency launched an extensive program to provide information to the business community on the VAT through seminars, publications, and telephone support. Tax administration officials also conducted widespread consultation programs to seek input from businesses, trade associations, and professionals on how to disseminate information and develop administrative procedures. A publication committee was also formed to steer the development of guides, information pamphlets, and technical memoranda. Consultants were retained to conduct focus testing to review some of the publications and make them more understandable.

The budget for education and outreach activities during the implementation of the VAT in Canada was substantial. According to one study, the Canadian government spent more than Can$85 million (US$98.5 million). To put this in context, this exceeded the amount spent by the nation's largest private-sector advertiser at the time by nearly Can$30 million (US$34.8 million). The VAT education and outreach campaign in Canada drew on the resources of several government agencies, which were coordinated by a cabinet-level committee on communications. Table 17 provides additional details on the agencies that were involved, the activities they conducted, and their associated costs.

Table 17: Summary of Education and Outreach Activities for VAT Implementation in Canada

Agency	Activity	Cost (Can$ millions) 1989-92
Department of Finance	Print, radio, and television advertising	11.6
	Direct mailings to 10 million households and over 500,000 industry group members Production and broadcasting of video on the VAT	5
	Operating costs for a Communications Working Group, including a toll-free hotline which, at peak, handled 6,000 calls a day	5
Canada Revenue Agency	General advertising	10.6
	Direct mailings to businesses and consumers	9.2
	Efforts to educate households on the VAT credit that would be administered through the income tax system	2.8
Consumer Information Office	Operating and advertising costs for a special office that was established to "limit confusion among consumers" about the GST. The office planned to spend $7.4 million on advertising in 1990-1991, another $6.9 million on the production of material, and $19.6 million for its costs of operation. The budget for these activities in 1991-1992 amounted to $8.4 million.	42.3
Approximate total		**86.5**

Source: Alasdair Roberts and Jonathan Rose, Queen's University.

Canada, like Australia, also provided assistance to small businesses during the implementation. For example, qualifying small businesses received one-time credits of up to Can$1,000 (US$1,159) to help them adapt to the VAT. The Canadian government also helped certain businesses offset the burden of double taxation created by transitioning from one type of consumption tax to another. Specifically, certain wholesalers' and retailers' inventories consisted of some goods on which the old MST had already been paid. The Canadian government provided refunds to offset payments made under the old tax. Determining the exact amount of tax that each individual business paid was difficult because the MST was a hidden tax and not identifiable for specific items in a business's inventory. Therefore, to approximate the amount of MST paid on goods in inventory, the Canada Revenue Agency established a series of refund percentages based on the type of business activity.

Australia and Canada Had Difficulty Getting Businesses to Register Early for VAT Prior to Implementation

Despite efforts to educate and reach out to businesses, both Australia and Canada still had difficulty in getting all businesses to register to collect and remit VAT prior to implementation. In Canada, the tax administration assumed it would have 12 months from the time the proposed VAT legislation was enacted to the date the tax would take effect. However, the legislation for the proposed VAT was enacted only 2 weeks before the effective date of January 1, 1991. Until the legislation was enacted, the requirement to register was neither mandatory nor enforceable. According to tax administration officials, the delay in passage of the legislation may have led potential registrants to question whether the VAT would indeed come into effect. Others may have refused to register voluntarily before the legislation became effective.

Despite having little authority to enforce registration until the VAT was passed, tax administration officials recognized they needed to identify and register businesses anyway if they were to be effective in administering the tax. The first step in the registration process was to identify and contact potential registrants. Because the VAT had an expansive reach, the Canada Revenue Agency was tasked with contacting every business and organization in Canada to determine whether or not they were required to register. To do this the agency prepared a master list for an initial mailing from information contained in four income tax system databases: (1) corporate, (2) individual, (3) payroll deduction, and (4) charitable organization. Second, it mailed approximately 1.9 million registration kits to potential registrants, followed by two sets of reminder notices. An additional 180,000 registration kits were sent to newly identified potential registrants identified using updated information in the income tax database. Third, a final registration kit was sent to potential registrants who had not yet responded.

Three months prior to implementation there were 500,000 registrants—one-third less than the administration's goal. To increase registrations, the Canada Revenue Agency began contacting potential registrants by telephone. Upon passage of the legislation, registration requests increased and continued to increase in January 1991. Four months after the VAT went into effect, the targeted goal of 1.6 million registrants was achieved.

Though the circumstances were different, the Australian Taxation Office also had difficulty getting businesses to register in advance of VAT implementation. Officials said that ensuring timely business registration was an important aspect of VAT implementation. Following an examination of registration times in other countries, tax officials tried to register as many businesses as possible prior to July 1, 2000. The tax

administration was successful in getting most businesses to register before the VAT was implemented. However, according to officials involved in implementation, many registrations were filed close to the deadline, creating significant workload just before the VAT was to go into effect. Tax administration officials also said they experienced some challenges registering nonprofit and charity organizations because these organizations were not included in other tax systems.

Concluding Observations

Administering a VAT presents the same fundamental challenges as other tax systems, including the current U.S. income tax. They all have compliance risks, administrative costs, and compliance burden. While these challenges may differ in some specifics, they exist for all tax systems, including even simple VATs.

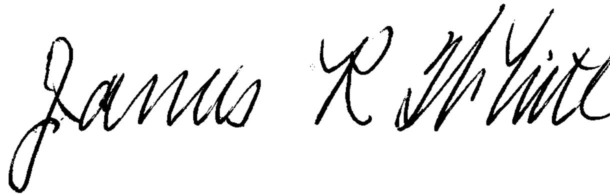
One overriding lesson about VAT design is that, like our income tax system, adding tax preferences to the system may satisfy economic, distributional, or other policy goals but at a cost. Tax preferences—in the form of exemptions, zero rates, or reduced rates—often reduce revenue, add complexity, and increase compliance risks. To mitigate the increased risk, countries have imposed additional record-keeping and reporting requirements on businesses, delayed refunds, and done more auditing of businesses. The end result is an increase in compliance burden for businesses and administrative costs for the government.

The choice of tax type is typically heavily influenced by criteria other than administrability. Revenue needs, impact on economic performance, and distributional consequences are prominent considerations and have been at the forefront of the debate in the United States about tax reform. Administrability and the details of how a new tax would be implemented often get less attention. However, administrability and design details do matter. The benefits of a new or reformed tax system, in terms of revenue, economic performance, or equity, would be at least partially offset by poor design that unnecessarily increased compliance risks, administrative costs, and compliance burden.

As agreed with your staff, unless you publicly announce the contents of this report earlier, we plan no further distribution of it until 30 days from the date of this letter. At that time, we will provide copies of this report to interested congressional committees and other interested parties. Copies of this report will also be made available to others upon request. In

addition, the report will also be available at no charge on GAO's Web site at http://www.gao.gov.

If you or your staff has any questions about this report, please contact me at (202) 512-5594 or whitej@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are listed in appendix VI.



James R. White
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Strategic Issues Team

Appendix I: Objectives, Scope, and Methodology

The objectives of this report were to describe for selected countries important lessons learned from experiences on (1) how value-added tax (VAT) design choices have affected compliance, the cost of administration, and compliance burden; (2) how countries with federal systems administer a VAT in conjunction with subnational consumption tax systems; and (3) how countries that recently transitioned to a VAT implemented the new tax.

In choosing the countries to study, we interviewed a number of VAT experts, including academics, private practice tax practitioners, researchers at the Organization for Economic Cooperation and Development (OECD), and government officials. We reviewed academic articles, books, and government publications on VAT compliance risks, administrative costs, compliance burden; federal and subnational tax coordination issues; and the topic of VAT implementation to identify these VAT experts. We contacted those experts who had a broad understanding of VAT issues related to our research objectives, who were recommended by other experts, and who were available to speak with us.

Based on our research and expert recommendations, we selected Australia because it implemented a VAT more recently; Canada because it has a federal system with a number of subnational consumption taxes; France because it is has the oldest VAT system; New Zealand because it has a simple system with a broad tax base; and the United Kingdom because of its work on VAT noncompliance and fraud. Like the United States, all of the countries we selected are members of OECD and are modern industrial nations for which a broad set of comparative economic and tax data were available.

We performed an in-depth literature review of government and academic literature related to each selected country's VAT. We visited Australia, Canada, France, and New Zealand and interviewed government officials and private practice tax professionals. In each country we visited we interviewed officials with the tax administration agency and the national audit institution; and VAT professionals from global taxation and audit firms. In Australia, Canada, and New Zealand, we also interviewed officials in their treasury departments and customs agencies, and academics. In Australia and Canada we also interviewed officials at relevant provincial and state agencies. For the United Kingdom, we communicated with appropriate officials in the National Audit Office and reviewed government documents on VAT administration and compliance. To obtain further information on our study countries, we met with VAT experts from the OECD, the European Commission, and the International Monetary Fund.

We conducted an extensive number of interviews for this report and corroborated as much testimonial evidence as possible with official government reports and documents, or published academic articles. We indicated in the report when evidence was based solely on the testimony of government officials or experts.

We collected and analyzed data on the countries and their VAT systems, including VAT revenue trends, administrative and compliance activities and costs, and the size and distribution of economic activity within the study countries. We gathered these data mostly from the OECD and government agencies in our study countries, including the national statistics agencies and national revenue agencies, but also from academic articles. In most cases the data used in this report come from the OECD or international government agencies. We determined the data were sufficiently reliable for the purposes of our report. We considered the OECD information we reviewed to be a reliable source of comparable statistical, economic, and social data and confirmed the data with government officials in our study countries. Most of the data used from international government agencies, including tax administrations, were publicly reported by these agencies. To provide additional assurance that these and all other data reported in our report were sufficiently reliable we discussed this information with the appropriate government officials, tax experts, and OECD officials. Additionally we provided the national audit institutions and the tax administration agencies of our study countries a copy of our report to verify data and specific factual and legal statements about the VAT in those countries. We made technical corrections to our report based on these reviews.

We conducted this performance audit from December 2006 through April 2008 in Atlanta, Ga.; Boston, Mass.; San Francisco, Calif.; and Washington, D.C.; Canberra and Sydney, Australia; Brussels, Belgium; Montreal, Ottawa, Québec, and Toronto, Canada; Paris, France; and Wellington, New Zealand, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Goods and Services in Study Countries Subject to Exemptions, Zero Rating, or Reduced Rating

Table 18 lists the broad categories of goods and services that are subject to exemptions, zero-rating, or reduced rating in our study countries. Exports are not included in the list of zero-rated goods or services because this is included in the definition of the destination principle.

Table 18: Exempt, Zero Rated, and Reduced Rated Goods and Services in Study Countries

	Exempt	Zero rate	Reduced rate
Australia	financial services; residential rent and premises; certain supplies of precious metals; school canteens operated by nonprofit bodies; fund raising events conducted by charitable institutions	most food and beverages; health care (including health insurance); education; child care; religious services; activities of charitable institutions; water sewage and drainage; going concerns; precious metals; international travel; international mail; farm land; cars for use by disabled people	N/A
Canada	transport of sick or injured persons; hospital and medical care; human blood, tissues, and organs; dental care; charitable work; education; noncommercial activities of nonprofit making organizations; sporting services; cultural services; insurance and reinsurance; letting of immovable property; financial services; certain fund-raising events; legal aid; ferry; road and bridge tolls	medicine; basic groceries; certain financial services; certain agricultural and fishing products; medical devices; precious metals; international organizations and officials	N/A
France	postal services; hospital and medical care; human blood, tissues and organs; dental care; charitable work; education; noncommercial activities of nonprofit making organizations; sporting services; cultural services; insurance and reinsurance; financial services; betting, lotteries, and gambling; supply of land and buildings; certain fund-raising events; construction, improvement, repair and maintenance work on monuments; cemeteries and graves commemorating war victims undertaken for public authorities and nonprofit bodies, new industrial waste and recyclable material; commodity futures transactions carried out on a regulated market; services rendered by resource consortia to their members composed of natural or legal persons that are VAT exempt or not subject to VAT	N/A	most food, nonalcoholic beverages; medicine; equipment for disabled; books; hotels; entertainment; author's rights; museums; transport; accommodation; agriculture; catering; newspapers; water; work on dwellings over 2 years old
New Zealand	financial services (including life insurance policies); supply of residential accommodation in a dwelling; fine metal; supply by a nonprofit body of donated goods and services	businesses as a going concern; fine metal; specific supplies by local authorities; supply of financial services to registered GST businesses	long term accommodation in a commercial dwelling (taxed at 60% of the value of the sale for an effective reduced rate)

	Exempt	Zero rate	Reduced rate
United Kingdom	postal services; transport of sick or injured persons; hospital and medical care; human blood, tissues and organs; dental care; charitable work; education; noncommercial activities of nonprofit making organizations; sporting services; cultural services; insurance and reinsurance; letting of immovable property; financial services; supply of land and buildings; certain fund-raising events; burials and cremations; investment gold; sports competitions; certain luxury hospital care; works of art; some gambling activities	children's clothing; food, passenger transport, books; newspapers; sewerage and water; prescribed drugs; medicine; certain aids and services for disabled people; new housing; residential and some charity buildings; alterations to listed buildings; certain services and goods supplied to charities	fuel and power for domestic and charity use; installation of certain energy saving materials; certain installations of heating equipment or security items; women's sanitary products; children's car seats; residential renovations; contraceptives; welfare advice; installation of mobility aids for elderly; smoking cessation products

Source: OECD.

Appendix III: Specific VAT Treatment of Public Sector Entities and Nonprofit Organizations in Australia and Canada

In Australia, public sector entities must pay VAT on taxable supplies just as a business would. However, they are also able to fully recover VAT paid for creditable purchases. Public sector entities are required to be registered for the VAT and file VAT returns just like private entities in order to remit VAT and claim credits.

Similar to Australia, Canadian federal government agencies also pay VAT on purchases from external suppliers. These agencies account for VAT paid on purchases throughout the year and, in March, present the account to the federal tax administration. The government is responsible for collecting VAT and, therefore, must file a tax return and remit funds on a monthly basis to meet this obligation.

Canada uses a rebate mechanism, rather than zero-rating, to refund VAT paid on inputs to tax-exempt sales by subnational and government-funded entities such as municipalities, universities, schools and hospitals. These organizations often provide tax-exempt services, and therefore, are unable to claim input tax credits for VAT paid on purchases used to provide those services. However, they are entitled to full to partial rebates on VAT paid on purchases. The percentage of recoverable tax paid varies by type of organization. For example, hospitals receive 83 percent of the total VAT paid to provide exempt goods and services while universities receive 67 percent. The rebate ratios were established to ensure that the sales tax burden of these entities did not increase as a result of moving to the VAT system from the previous consumption tax system.

Canada also provides VAT rebates of 50 percent to certain charities and nonprofits. Registered charities are eligible to claim a 50 percent rebate of VAT paid on purchases that are not used to produce taxable goods and services. Other nonprofit organizations may also claim the rebate, provided they receive at least 40 percent of their funding from the government.

Appendix IV: Applying the VAT to Hard-to-Tax Sectors

Some sectors of the economy, specifically financial services, insurance, real estate, and second hand goods, are inherently difficult to tax under conventional value-added tax (VAT) rules. For financial services and insurance, there is often no clear distinction between the provision of a service and a return on investment. For some real estate transactions and the sale of secondhand goods, it is difficult to calculate the implied input taxes.

Financial Services

Applying a VAT to financial services has proved challenging to many of the countries that implement a VAT. Determining the value added for each financial service is not a clear calculation. While some financial services, such as renting a safety deposit box, are fee based and therefore have a price that can be considered taxable consumption, others such as financial intermediation in the form of accepting deposits and making loans, do not. Rather than charging a fee for a specific service, the institution pays lower interest rates on deposits and charges higher rates on loans than they otherwise would. To tax these services, the value of the services would have to be imputed. The interest on deposits or loans is considered a return on investment and not the price for goods or services sold, and is therefore not subject to VAT. Taxing interest earned on deposit accounts results in a tax on savings rather than a tax on consumption.

Exempting

As a condition of membership, European Union (EU) member states are required to employ a partially harmonized VAT that follows the rules set forth in the Sixth Council Directive. As outlined in the Sixth Council Directive, EU member states are required to exempt from their VATs a series of specific financial services that include services related to credit, deposits, transfers, payments, debts, checks, and other negotiable instruments; transactions involving legal currency; transactions in shares, interests, debts, or other securities; and management of special investment funds. Many countries around the world have taken the EU approach and have opted to exempt financial services from their VAT base, but exemptions have created further complexities in how the VAT is ultimately applied. Of our study countries, only New Zealand has changed from exempting to zero rating some business-to-business financial services.

Input Tax Apportionment

Exempting financial services requires businesses to accurately calculate the amount of their overall inputs that are used for providing exempt financial services. In the case of inputs that are used for making both exempt and taxable services, such as computers, businesses must apportion what percentage of the input taxes of the dual-use input are associated with taxable sales to be able to claim proper input tax credits.

Some countries have specific apportionment guidelines for banks and financial services firms. These apportionment guidelines set methodologies for calculating VAT paid on business inputs that can be claimed as input tax credits.

Impacts on Outsourcing Decisions

By exempting financial services, as is done in most countries with a VAT, businesses have an incentive to vertically integrate as much as possible to reduce their noncreditable VAT paid on supplies. For example, a financial services firm that purchases pamphlets from an outside printer pays VAT for the printing services but does not claim input tax credits to reclaim the VAT paid. The firm would benefit financially if it could produce the pamphlets in house for less than the VAT inclusive price charged by the printer. To address this issue, countries use apportionment agreements or other VAT specific rules.

Tax Cascading

Exempting financial services also can create tax cascading. Tax cascading occurs when an exempt good or service is later used in the production of a taxable good or service, leading to a tax being levied on a tax. When a financial service is exempt, the supplier cannot recover the VAT paid on inputs, and therefore passes the VAT paid on inputs onto the consumer in the final price of the financial service. If the exempt financial service is then used in the production of a taxable service, the VAT is levied on the final price of the taxable service, which includes the input taxes passed on by the exempt financial service, resulting in a tax on a tax.

Zero Rating

While most VAT systems exempt financial services, some have more recently opted to zero rate them. New Zealand began applying a zero rate to business-to-business financial services in 2005. Zero rating business-to-business financial transactions effectively eliminates any distortions tax cascading would have created, but it does not eliminate the need for apportionment agreements with banks because sales to final consumers are still exempt. In Canada, Québec's provincial VAT applies a zero rate to financial services. Officials we spoke with indicated that zero rating financial services increased Québec's ability to attract and retain banks within the province.

Insurance

Insurance poses the same challenges to VAT taxation as financial services, and many countries include insurance into their definition of exempt financial services. While insurance and reinsurance are exempt in most countries, a few have designed methods to tax them. For example, New Zealand exempts life insurance policies, but levies the VAT on the margin between premiums collected and claims paid on all other types of

insurance policies. Consumers pay the VAT when purchasing the policy and insurance companies receive input tax credits when paying out on a policy. For example, if a consumer purchases an automobile insurance policy for $500 annually, he/she is charged the 12.5 percent VAT rate, for a total of $562.50. If the consumer has an accident and claims $500 for the cost to repair the vehicle, the insurance company pays the policyholder $562.50 and claims $62.50 as input tax credits. The net VAT revenue collected on the policy is $0. Australia taxes property and casualty insurance but employs a different mechanism for allowing VAT registered policyholders to claim input tax credits.

Real Estate

Real estate transactions are considered difficult to tax due to the inherent challenges in determining input tax credits and the consumption value of long-lived assets, such as real property. If a VAT is intended to tax current consumption, taxing the purchase of a new home is in effect taxing future consumption, as the purchaser may live in the home and "consume housing" for several years. Charging a VAT on real estate can also create problems at the time of transition to a VAT. For example, in Australia, where new residential housing is taxed at the standard rate but existing housing is exempt, new residential housing prices increased at the time of transition as a result of the new tax. The Australian government developed a program that gave new home buyers a grant of A$7,000 (US$6,497) to help offset the increase in housing prices. Similarly, Canada has a housing rebate that allows for individuals to reclaim some VAT paid on purchases of a new house or on substantial renovations to an existing house.

Margin Scheme

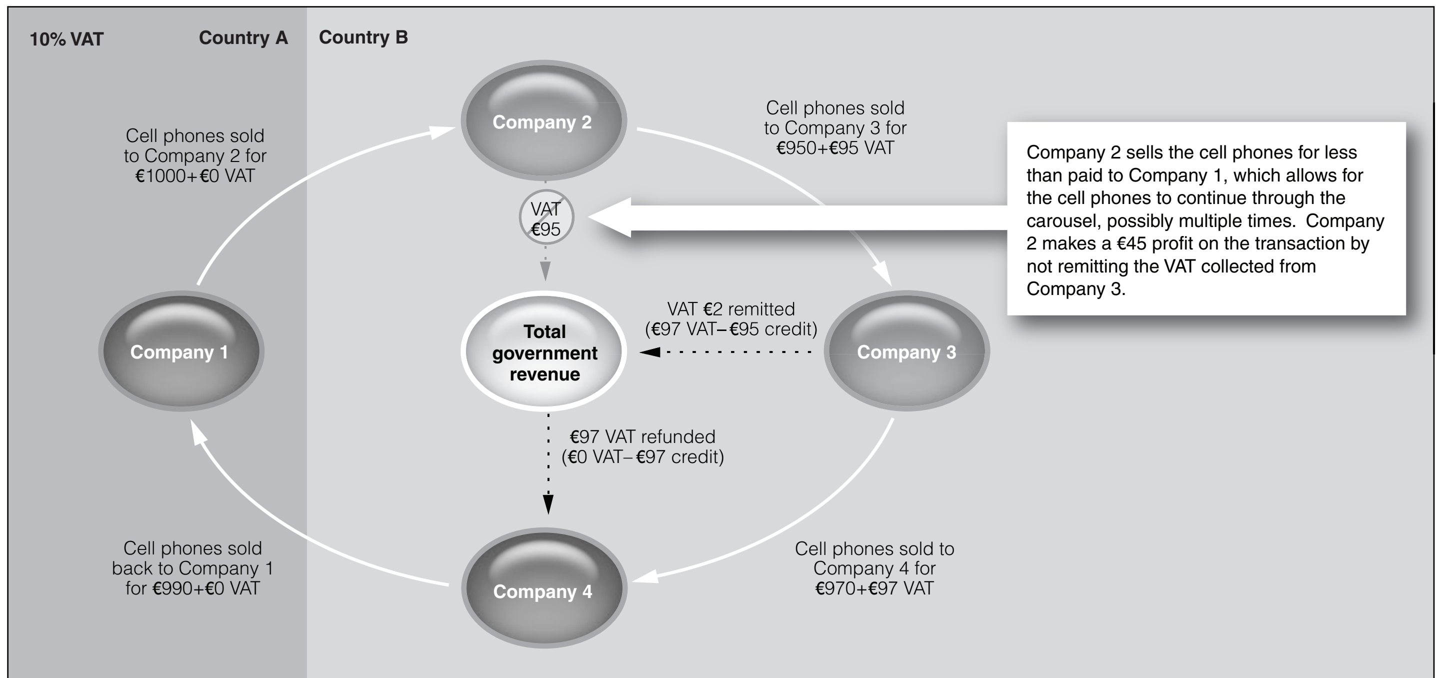
Australia uses a margin scheme for certain real estate transactions to address the sale of existing property. In general, under the margin scheme the VAT is paid on the difference between the selling price and the value of the property on July 1, 2000—therefore taxing the value added since the introduction of the VAT. The seller cannot claim input tax credits from the original purchase. Similar margin schemes are used in other countries on the sales of high-value secondhand goods, such as works of art or antiques.

Appendix V: Carousel Fraud in the European Union

Carousel fraud is mainly a compliance challenge in the European Union, where trade borders between member countries no longer exist. With no customs or border agency collecting value added tax (VAT) at the border, fraudulent businesses take advantage of VAT-free imports. Since companies do not pay input VAT on imported goods and services at the time of importation, it opens up the opportunity for stealing the entire amount of VAT collected on sales.

Figure 6 shows how carousel fraud can occur using as examples two European Union (EU) countries. Company 1 exports cell phones to Company 2, and does not charge a VAT, as exports are zero-rated by the destination principle. Because there are no physical trade borders between EU countries, Company 2 is supposed to self-assess and remit VAT upon importing the cell phones. Company 2 does not self-assess a VAT but does collect VAT on the sale to Company 3. Because Company 2 does not remit the VAT collected to the government, Company 2 can charge a lower price to Company 3 than what was paid on the import and still make a profit. The lower priced cellular phones then can continue through the carousel until Company 1 imports them again, beginning the process anew.

Figure 6: Carousel Fraud



Source: GAO.

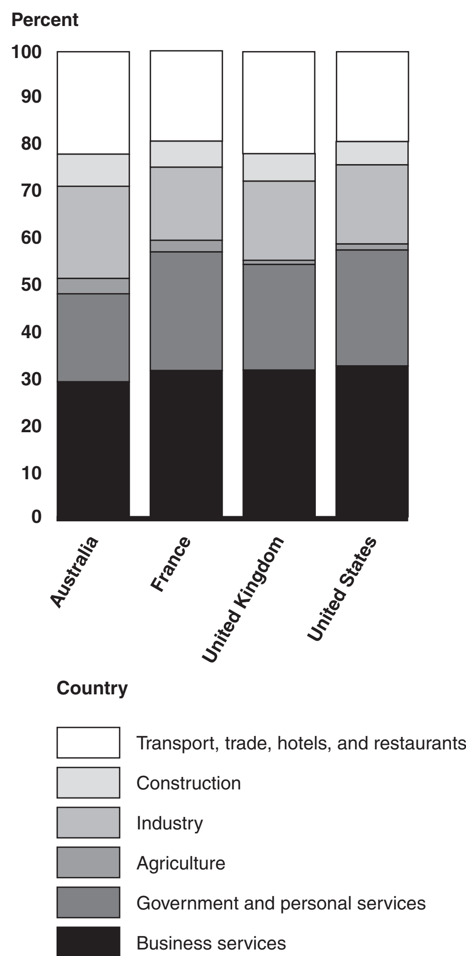
The United Kingdom employs a VAT Compliance Strategy (VCS) aimed at closing the tax gap. One main objective of the VCS is curbing carousel fraud within its borders, including requiring businesses that sell specific goods that are often used in carousel fraud, such as cellular phones and computer chips, to use a specific reverse charge. The specific reverse charge on these items requires each business purchasing cellular phones or computer chips to self-assess VAT on their purchase. Because businesses selling these goods to other businesses will claim an input tax credit equal to the self-assessed VAT, the only collection of VAT by the government is at the final retail stage, similar to a retail sales tax. Since implementation of VCS in 2002, HM Revenue & Customs estimates the VAT gap has decreased by almost 2 percentage points.

Canadian officials told us that carousel fraud, which they refer to as asset flipping, does occur to a limited extent in used automobile sales. Tax officials in Australia and New Zealand told us they have not had significant problems with carousel fraud because almost all imported goods are verified and assessed VAT at the border by their customs agencies.

Appendix VI: Distribution of Economic Activity by Industry Sector in Several Study Countries

Figure 7 shows the mix of economic activity in the United States, Australia, France, and the United Kingdom, countries for which the Organization for Economic Cooperation and Development (OECD) value-added data were available. Data for Canada and New Zealand were not available.

Figure 7: Value-added by Economic Sector in Select OECD Countries



Source: OECD.

Gross value added is defined as output minus intermediate consumption and equals the sum of employee compensation, gross operating surplus, and taxes less subsidies on production and imports, except for net taxes on products. The shares of each sector are calculated by dividing the value

added in each sector by total value added. Total gross value added is less than the gross domestic product (GDP) because it excludes VAT and similar product taxes.

Industry consists of mining and quarrying, manufacturing, and production and distribution of electricity, gas, and water; trade consists of retail and wholesale trade and repair services; real estate covers rents for dwellings including the imputed rents of owner-occupiers; and government includes public administration, law and order, and defense.

Appendix VII: GAO Contact and Acknowledgments

GAO Contact

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