Three VAT Studies

Sijbren Cnossen

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CPB Netherlands Bureau for Economic Policy Analysis
Van Stolkweg 14
P.O. Box 80510
2508 GM The Hague, the Netherlands

Telephone +31 70 338 33 80
Telefax +31 70 338 33 50
Internet www.cpb.nl

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Abstract in English

This volume presents three studies on the VAT. The first study is a VAT primer for lawyers, economists, and accountants who rarely talk to each other about tax issues, particularly in the Netherlands. The different views illuminate the nature and workings of the VAT. The second study examines and evaluates VAT coordination in the EU against the backdrop of an analysis of VAT fraud. Carousel fraud is dwarfed by shadow economy fraud and contrived insolvency fraud. The taxation of intracommunity exports is not the solution to VAT coordination problems. Rather the focus should be on cross-border VAT audit, followed up, if necessary, by investigation and prosecution of fraudsters. The third study argues that value changes in exempt immovable property should be brought into the VAT base, similar to value changes in other second-hand goods that are traded by taxable dealers. This extension of the VAT base should replace the inequitable and distortionary transfer or registration taxes and stamp duties on transactions in immovable property that are currently levied in the various member states.

Key words: VAT , European Union, VAT coordination, carousel fraud, retail sales tax, consumption taxes, VAT treatment of housing

JEL code: H2, H7, K34

Abstract in Dutch

Deze bundel bevat drie studies over de BTW. De eerste studie is een kort begrip van de BTW voor juristen, economen, en accountants die zelden met elkaar praten over belastingvraagstukken, met name in Nederland. De verschillende zienswijzen werpen licht op de aard en de werking van de BTW. De tweede studie onderzoekt en beoordeelt de coördinatie van de BTW in de EU tegen de achtergrond van een analyse van BTW-fraude. De belasting van intracommunautaire uitvoer is niet de oplossing voor BTW-coördinatieproblemen. In plaats daarvan dient de aandacht zich te richten op grensoverschrijdend boekenonderzoek en, zo nodig, opsporing en vervolging van fraudeurs. De derde studie pleit er voor om waardeveranderingen van vrijgesteld onroerend goed in de BTW-heffingsgrondslag te betrekken, zoals ook gebeurt met tweedehands goederen die door BTW-plichtige personen worden verhandeld. Deze uitbreiding van de heffingsgrondslag dient in de plaats te komen van de unfaire en verstorende overdrachts- of registratiebelastingen en zegelrechten op transacties in onroerend goed die thans door de verschillende lidstaten worden geheven.

Steekwoorden: BTW, Europese Unie, BTW-coördinatie, carrouselfraude, kleinhandelsbelasting, consumptiebelastingen, BTW-behandeling van woningen

Contents

Preface

Recently, the European Commission has issued a Green Paper on the future of VAT in the European Union. It believes that the Member States should aspire towards simpler, more robust and efficient VAT systems. Having been harmonised in 1977, long before the internet and the onset of globalisation, the common VAT appears an anachronistic tax compared with modern VATs in New Zealand, Canada, Australia, South Africa, and Singapore. The exemptions and differentiated rates that are prevalent throughout the EU violate the logic and functionality of the VAT. More importantly, they are highly distortionary and greatly complicate the administration and compliance with the tax.

The three studies in this volume attempt to make a contribution towards a better understanding of the VAT. The first study does this by analysing the nature and role of the VAT and comparing the views of lawyers, economists, and accountants. Base broadening and domestic rate unification should be high on the tax reform agendas of the Member States. Two issues, that is, VAT coordination aspects and the treatment of exempt immovable property are singled out for separate treatment. The study presents evidence that domestic shadow economy fraud and contrived insolvency fraud are far more important than carousel fraud, which receives so much attention. Little can be said in favour of some form of exporter rating, that is, the imposition of VAT on intracommunity supplies and a credit for VAT on intracommunity acquisitions, together with the payment of the VAT collected by supply states to acquisition states (to maintain the destination principle, that is, revenue allocation to the state of consumption). Instead, present arrangements should be retained, although compliance control should be extended across borders in the form of joint audits. Finally, the author proposes to replace the current inequitable and highly distortionary transfer, registration and stamp duties on immovable property by the imposition of the VAT on changes in the value of exempt immovable property. This would eliminate the cascade effects of the current taxes and duties, although the locked-in effect would remain. The proposal merits further consideration.

The studies, written by Sijbren Cnossen at CPB, are based on papers presented at conferences held in Vienna, Washington DC, and Oxford, and published in the related proceedings. The author wishes to thank the organisers of the conferences for their support, and Jeannette Verbruggen for preparing the studies for publication.

Coen Teulings
Director CPB

Summary

VAT primer for lawyers, economists, and accountants

Lawyers, economists, and accountants with a grounding in taxation hardly talk to each other about professional issues, particularly in the Netherlands. Each profession tends to confine the circle of discussion to colleagues with a similar educational background. Joint conferences to learn from each other's insights and experiences are rare. The value-added tax (VAT) is a good example of this insular attitude. The first paper in this volume attempts to bridge the gap between the three professions by articulating and comparing the views that are peculiar to each group. In practice, lawyers view the VAT as a tax on transactions, emphasizing the importance of unambiguous legislation on who should be taxed, on what, where, and to what extent. In the process, the nature of the VAT and its economic effects and costs tend to overlooked. Economists, on the other hand, are aware of the economic distortions of exemptions and differentiated rate structures, but tend to be dismissive of the legal design requirements for a good tax, which are essential for tax certainty. Economists enhance the understanding of the VAT by showing that it is a tax on labour income and business cash flow. Unlike the income tax, the VAT does not tax the normal rate of return on capital. Accountants emphasize that the VAT is not a cost for business. It does not enter a business firm's profit & loss account, although this account can be used to calculate the VAT liability. There is much to be learned from the views of the various professions.

As background to these views, the paper outlines the nature and basic workings of the VAT and other broad-based consumption taxes by reference to a stylized example of the production-distribution process. Given identical bases and rates, it is shown that exactly the same amount of tax can be levied under a retail sales tax (RST), a direct subtraction method tax levied on the difference between sales and purchases, an addition method tax imposed on the sum of wages and business cash flow, a flat tax applied to business cash flow combined with a tax on individual wage earners, and a personal expenditure tax levied on the difference between incomings and savings. Although in theory identical, design and feasibility considerations have important implications for the ability to achieve basic tax objectives, such as fairness, neutrality, revenue allocation to the country of consumption, minimization of administration and compliance costs, and political robustness with respect to the various taxes. The comparative review indicates that the VAT emerges as the consumption tax of choice. It is a highly neutral, productive, stable, and flexible source of government revenue. Not surprisingly, the VAT is found in some 150 countries around the world.

VAT coordination in common markets and federations: Lessons from the European experience

While there is wide agreement on the basic design features of a VAT, the consensus on the most appropriate way to coordinate the VATs levied by different taxing jurisdictions is smaller. Some believe that an RST, which is inherently destination-based, is the best consumption tax in a common market without border controls or in a federation. The RST is found in 45 out 50 states in the United States and in 3 out of 10 provinces in Canada. It has also been advocated by Germany and Austria as a solution to the problem of carousel fraud, that is, the VAT-free importation of goods from other states and their subsequent sale, inclusive of VAT in the domestic market, but without payment of the VAT collected from the purchaser to the tax authorities. To begin, this paper, basically written for American readers, shows that the VAT is to be preferred over the RST, essentially because it is more conducive in distinguishing exempt producer use of goods and services from taxable consumer use; hence, it is a more neutral tax. Also, the multistage collection feature of the VAT means that large firms collect most of the tax paid by the consumer on behalf of the tax office, in contrast to an RST under which retailers remit the full tax to the tax authorities, although they are the weakest link in the tax collection process. The preference of VAT over RST is backed up by the experience of various countries, which were faced with the choice.

Some continue to prefer the RST, because it is inherently destination-based and does not seem to require border tax adjustments (exports exempt, imports taxed). Accordingly, it is argued, an RST is not susceptible to carousel fraud. Currently, in the absence of (physical) customs controls, these border tax adjustments are effected through the accounts of exporters and importers under the so-called deferred payment system. The system requires purchasers of out-of-state goods and services to self-assess the VAT. Instead of the seller being liable to account for the VAT (the normal procedure), the buyer has to account for the tax (and give himself a credit at the same time). This is called reverse-charging. The European Commission has long sought to replace the deferred payment system, called transitional regime, by a definitive regime under which the exporter is taxed, the importer receives a credit for the exporter's tax, and the exporting country remits the VAT collected from the exporter to the importing country – a regime which is called 'exporter rating'. Various high-profile exporter rating proposals have also been made in the tax literature, which go by the names of Viable Integrated VAT (VIVAT), Compensating VAT (CVAT), and Dual VAT (D-VAT).

This study argues that the current deferred payment system is to be preferred over any of the exporter rating proposals. Basically, it is not the break in the VAT-collection chain (the zero-rating upon export), which undermines the efficacy of the VAT, but the break in the VAT-audit trail. This break can be repaired by extending the jurisdictional reach of each state's VAT administration through cross-border audits, followed up, if indicated, by investigations and prosecutions. Replacing deferred payment by exporter rating simply would shift fraudulent practices from the export stage to the import stage through the use of false invoices showing VAT credits. Perhaps, it is time to put the various exporter rating proposals, which have dominated the debate for the last 20 years, to rest.

The study also shows that the size of carousel fraud is much smaller than shadow economy fraud, that is, the VAT-free provision of all kinds of personal services, ranging from home and car repairs to hairdressing and consultancy services in violation of the law. Understandably but incorrectly, carousel fraud receives so much attention because it is a mafia type of activity involving few transactions but large sums of money. By contrast, shadow economy fraud – much larger in terms of VAT revenue foregone – entails numerous small transactions across the whole spectrum of personal services provision. Germany and Austria have proposed to solve the smaller problem, that is, carousel fraud, by reverse-charging the VAT throughout the entire production-distribution process (effectively transforming it into an RST) and backing this up with a pervasive Stasi-like monitoring system under which the details of every transaction have to be fed into a central computer to match the VAT on purchases of one taxable person with the VAT on sales of some other taxable person. Drawing on the Chinese and Korean experience, the study argues that wholesale data matching is largely unproductive and does not uncover fraudulent practices. In short, it is no substitute for comprehensive audit.

Improving the VAT treatment of exempt immovable property in the European Union

The European VAT, harmonised in 1977 (before the internet and globalization) and not changed since then, is riddled with largely senseless exemptions and differentiated rate structures. It is an anachronism compared with modern VATs found in, for instance, New Zealand, Canada, South Africa, Australia, and Singapore. One of the most difficult areas concerns the appropriate treatment of immovable property. Since rental values and by extension rents cannot be taxed, the value of newly created immovable property is taxed instead. At the time of creation, the tax on the full value equals the tax on the discounted present value of all future building services. Subsequent transactions in immovable property are exempt from VAT, although taxable persons can elect to include business property in the VAT base, meaning that a VAT credit is available for purchases and that tax must be charged on sales.

The exemption of transactions in residential property and business property (unless use is made of the tax option) implies, however, that future increases (and decreases) in the value of the property are left out of the VAT base. This hole in the VAT's coverage can be repaired by taxing the increase in property values (and refunding the tax on the decrease in property values falling below the taxed acquisition price). The VAT on the increase/decrease in value should replace the current transfer/registration duty on the sale of immovable property (although consideration could be given to retaining the tax collection mechanism of the duty). The transfer duty is a highly inequitable and distortionary element in the tax system, which can be likened to a cumulative turnover tax that is levied whenever there is a change in the ownership of property. This verdict applies also to the crazy quilt of stamp duties found in most EU member states. These anachronistic levies should be abolished, the sooner the better. Another improvement would be to tax all non-residential property sales (and to abolish the tax option), which is what is done under modern VATs. Last but not least, a strong case can be made for applying the standard rate across-the-board to all transactions in or relating to immovable property.

Nederlandse samenvatting (Dutch summary)

Kort begrip van de BTW voor juristen, economen, en accountants

Juristen, economen, en accountants onderlegd in de belastingheffing praten bijna niet met elkaar over beroepsmatige vraagstukken, zeker niet in Nederland. Elke beroepsgroep is geneigd de discussiekring te beperken tot collegae met eenzelfde educatieve achtergrond. Gemeenschappelijke conferenties om van elkaars inzichten en ervaringen te leren zijn zeldzaam. De BTW is een goed voorbeeld van deze kortzichtige houding. De eerste studie in dit geschrift probeert de kloof tussen de drie beroepsgroepen te verkleinen door de verschillende zienswijzen te articuleren en te vergelijken. In de praktijk beschouwen juristen de BTW als een belasting op transacties en benadrukken zij het belang van ondubbelzinnige wet- en regelgeving omtrent wie dient te worden belast, waarover, waar, en in welke mate. Daarbij worden de aard van de BTW en haar economische effecten en kosten veelal over het hoofd gezien. Economen, aan de andere kant, zijn zich bewust van de economische verstoringen van vrijstellingen en gedifferentieerde tariefstructuren, maar neigen er toe geringschattend te doen over de wettelijke vormgeving van een goede belasting, die van essentieel belang is voor de rechtszekerheid. Economen dragen bij aan een beter begrip van de BTW door er op te wijzen dat zij een belasting is over arbeidsinkomen en ondernemingscashflow. In tegenstelling tot de inkomstenbelasting, belast de BTW niet de normale beloningsvoet van kapitaal. Accountants benadrukken dat de BTW geen kostenpost is voor de onderneming. Zij komt niet in de verlies- en winstrekening van een onderneming voor, hoewel die rekening wel kan worden gebruikt om de BTW-verplichting te berekenen. Er valt veel te leren van de zienswijzen van de verschillende beroepsgroepen.

Als achtergrond voor deze zienswijzen, schetst de studie de aard en de basiskenmerken van de BTW en andere brede consumptiebelastingen aan de hand van een gestileerd voorbeeld van het productie-distributieproces. Gegeven identieke grondslagen en tarieven wordt aangetoond dat precies eenzelfde bedrag aan belasting kan worden geheven onder een kleinhandelsbelasting, een subtractiebelasting over het verschil tussen verkopen en inkopen, een optelbelasting over de som van lonen en ondernemingscashflow, een vlaktaks over de ondernemingscashflow gecombineerd met een belasting van individuele loontrekkers, en een persoonlijke consumptiebelasting geheven over het verschil tussen ontvangsten en besparingen. Hoewel in theorie identiek, zijn de mogelijkheden en beperkingen die verband houden met de vorm en de uitvoering van de onderscheidene belastingen van groot belang bij het in de praktijk brengen van elementaire doelstellingen van belastingheffing, zoals fairness, neutraliteit, opbrengsttoewijzing aan het land van consumptie, minimalisatie van administratieve en nalevingskosten, en politieke weerbaarheid. De vergelijkende beschouwing geeft aan dat de BTW de voorkeur verdient. Zij is in hoge mate een neutrale, productieve, stabiele en flexibele bron van overheidsinkomsten. Het wekt dan ook geen verbazing dat de BTW is ingevoerd in zo'n 150 landen rond de wereld.

BTW-coördinatie in gemeenschappelijke markten en federaties: Lessen uit Europa

Hoewel er in het algemeen overeenstemming is over de grondtrekken van een goede BTW, is de consensus over de meest geëigende manier om de BTW te coördineren tussen verschillende landen geringer. Sommigen zijn van oordeel dat de kleinhandelsbelasting de beste consumptiebelasting in een gemeenschappelijk markt is zonder douanecontroles of in een federatie. De kleinhandelsbelasting wordt geheven in 45 van 50 staten in de Verenigde Staten en in 3 van de 10 Canadese provincies. Zij is ook naar voren geschoven door Duitsland en Oostenrijk als oplossing voor het probleem van carrouselfraude, dat wil zeggen, de BTW-vrije invoer van goederen uit andere staten, die vervolgens met BTW op de binnenlandse markt worden afgezet, echter zonder de door de koper betaalde BTW af te dragen aan de belastingdienst. Om te beginnen, toont deze, voornamelijk voor Amerikaanse lezers geschreven studie, aan dat de BTW de voorkeur verdient boven de kleinhandelsbelasting, omdat zij in beginsel beter een onderscheid kan maken tussen vrijgesteld producentenverbruik van goederen en belast consumentenverbruik; daarom is het een neutralere belasting. Ook betekent de gefractioneerde inning van de BTW dat grote ondernemingen het leeuwendeel van de door de consument betaalde belasting afdragen, in tegenstelling tot een kleinhandelsbelasting waaronder kleinhandelaren de volle mep aan de belastingdienst dienen te betalen, ook al zijn zij de zwakste schakel in de keten van belastinginning. De voorkeur van de BTW boven de kleinhandelsbelasting blijkt ook uit de overwegingen van verschillende landen die tussen een BTW en een kleinhandelsbelasting konden kiezen.

Echter, sommigen blijven de voorkeur geven aan een kleinhandelsbelasting, omdat zij van nature naar de bestemming wordt geheven. Grenscorrecties om de uitvoer van belasting te schonen en de invoer te belasten zouden niet nodig zijn. Daarom, zo wordt beweerd, is een kleinhandelsbelasting minder gevoelig voor carrouselfraude. Na de afschaffing van (fysieke) douanecontroles in de EU, worden grenscorrecties thans geëffectueerd via de boekhoudingen van exporteurs en importeurs onder de zogenoemde verleggingsregeling. Deze regeling eist dat kopers van uit andere landen geïmporteerde goederen en diensten zichzelf aanslaan voor de daarover verschuldigde BTW. In plaats van dat de verkoper verantwoordelijk is voor de heffing (de normale procedure), is het de koper die zichzelf de belasting in rekening dient te brengen (terwijl hij zichzelf tegelijkertijd een belastingaftrek voor hetzelfde bedrag kan verlenen). Dit wordt wel ‘reverse-charging’ genoemd. De Europese Commissie heeft lang geprobeerd de verleggingsregeling, overgangsregime genoemd, te vervangen door een definitieve regeling waaronder de uitvoerder wordt belast, de invoerder een aftrek krijgt voor de aan de uitvoerder betaalde belasting, en het uitvoerland de BTW van de uitvoerder afdraagt aan het invoerland – een regime dat met ‘exporter rating’ wordt aangeduid. In de literatuur zijn voorstellen van eenzelfde strekking gedaan onder de etiketten van ‘Viable Integrated VAT’ (VIVAT), ‘Compensating VAT’ (CVAT), en ‘Dual VAT’ (D-VAT).

Deze studie beargumenteert dat de huidige verleggingsregeling de voorkeur verdient boven welk exporter-rating voorstel dan ook. In principe is het niet de breuk in het BTW-inningsproces (de nultarifering bij uitvoer) die de doeltreffendheid van de BTW ondermijnt, maar de breuk in het controlesysteem. Deze breuk kan worden gerepareerd door de controlespanne van elke staat te vergroten door middel van boekenonderzoek over de grens, en, zo nodig, opsporing en vervolging. De vervanging van de verleggingsregeling door exporter-rating zou de frauduleuze praktijk eenvoudig verleggen van de uitvoer naar de invoer door het gebruik van vervalste inkoopfacturen waarop belastingaftrek staat genoteerd. Wellicht is het moment gekomen om de verschillende exporter-rating voorstellen, die het debat van de afgelopen 20 jaar hebben gedomineerd, in de la te leggen.

De studie toont ook aan dat de omvang van carrouselfraude veel kleiner is dan de fraude in het binnenlandse informele circuit (en gekunstelde faillissementsfraude) in de vorm van allerlei vormen van BTW-vrije persoonlijke dienstverlening, van woning- en autoreparaties tot kappers- en adviesdiensten – in strijd met de wet. Begrijpelijkerwijs maar ten onrechte, krijgt carrouselfraude zoveel aandacht, omdat het een maffia-achtige activiteit is bestaande uit een gering aantal transacties waarmee veel geld gemoeid is. In tegenstelling gaat het bij de informele circuitfraude, waarmee een veelvoud van BTW is gemoeid, om een groot aantal kleine transacties die het hele spectrum van de persoonlijke dienstverlening beslaan. Duitsland en Oostenrijk hebben voorgesteld het kleinere probleem, dat wil zeggen, carrouselfraude, aan te pakken door de verleggingsregeling verplicht te stellen voor het hele productie-distributieproces (waarmee de BTW een kleinhandelsbelasting wordt), ondersteund door een Stasi-achtig controlesysteem waarbij de details van elke transactie in een centrale computer moeten worden ingevoerd om de BTW van kopers en verkopers met elkaar te kunnen vergelijken. Onder verwijzing naar de Chinese en Koreaanse ervaringen op dit gebied, vestigt de studie er de aandacht op dat grootscheepse datavergelijking grotendeels onproductief is en echte fraude niet op het spoor komt. Om kort gaan, het is geen substituut voor grondige boekhoudcontroles.

Verbetering van de BTW-behandeling van vrijgesteld onroerend goed in de Europe Unie

De Europese BTW, geharmoniseerd in 1977 (lang voor het internet en de globalisering) en sindsdien niet veranderd, is doorschoten met grotendeels zinloze vrijstellingen en gedifferentieerde tariefstructuren. Zij is een anachronisme vergeleken met de moderne BTW's in, bijvoorbeeld, Nieuw Zeeland, Canada, Zuid Afrika, Australië en Singapore. Een van de meer problematische aspecten betreft de geëigende behandeling van onroerend goed. Omdat huurwaarden en in het verlengde daarvan huren niet kunnen worden belast, wordt in plaats daarvan de waarde van nieuw gebouwd onroerend goed in de heffing betrokken. Op het moment van oplevering is de belasting over de nieuwwaarde gelijk aan de belasting over de verdisconteerde tegenwoordige waarde van alle toekomstige huisvestingsdiensten van het goed. Daaropvolgende transacties in gebruikt onroerend goed zijn vrijgesteld van BTW, hoewel belastingplichtigen er voor kunnen kiezen om zakelijk gebruikt onroerend goed in de heffingsgrondslag te betrekken, hetgeen betekent dat de belasting bij aankoop kan worden afgetrokken en dat belasting geheven dient te worden bij verkoop.

De vrijstelling van transacties van in gebruik genomen woningen en zakelijk onroerend goed (tenzij gebruik wordt gemaakt van de belastingoptie) impliceert echter dat de toekomstige toename (en afname) van de waarde van onroerend goed, gerealiseerd bij verkoop, niet in de heffing wordt betrokken, hoewel dat wel zou moeten. Dit gat in de BTW-heffingsgrondslag kan worden gerepareerd door BTW te heffen over de waardetoename van gebruikt onroerend goed (en de BTW terug te geven indien de waarde daalt beneden de belaste aankoopprijs). De BTW over de toename/afname zou in de plaats moeten komen van de huidige overdrachtsbelasting geheven bij de verkoop van onroerend goed (onder handhaving van het inningsmechanisme van de overdrachtsbelasting). De overdrachtsbelasting is een buitengewoon unfair en verstorend element in het belastingstelsel dat kan worden vergeleken met een cumulatieve omzetbelasting die wordt geheven telkens wanneer onroerend goed wordt overgedragen. Dit oordeel gaat ook op voor de lappendeken van zegelrechten die in de meeste EU-landen voorkomt. Deze anachronistische heffingen dienen te worden afgeschaft, hoe eerder hoe beter. Een andere verbetering zou zijn om alle transacties in zakelijk onroerend goed aan de BTW te onderwerpen (en de belastingoptie af te schaffen), hetgeen de vigeur is onder moderne BTW's. Ten slotte kan een sterk pleidooi worden gehouden voor de toepassing van het standaardtarief over de volle breedte van transacties in of gerelateerd aan onroerend goed.

1 VAT primer for lawyers, economists, and accountants[1]

On the basis of a comparative analysis of various broad-based consumption taxes, this paper argues that the value-added tax (VAT), which has been adopted by more than 150 countries, is the preferred form of consumption tax. The nature and workings of the VAT can be illustrated by the perceptions that lawyers, economists, and accountants have of the tax. Lawyers emphasize that the VAT is a transactions-based tax. Economists point out that the VAT is a tax on wages and business cash flow. Accountants show that the VAT is accounts-controlled, just like the business income tax. The world-wide experience with the VAT indicates that its base should be designed as broadly as possible and that it should be levied at a single, uniform rate.

1.1 Introduction

The value-added tax (VAT) is the consumption tax of choice of some 150 countries. With the exception of the United States (U.S.), all countries that are member of the Organization for Economic Cooperation and Development (OECD) have a VAT, including the partners of the U.S. in the North American Free Trade Agreement (NAFTA) – Canada and Mexico. In the European Union (EU), which comprises 27 member states, the adoption of the VAT is a prerequisite for membership because it is uniquely equipped to tax imports on par with domestically produced goods and services and to free exports from tax.

This paper examines the nature and workings of the VAT by comparing it with other broad-based consumption taxes. The paper contains four sections. Following this introduction, the second section discusses the different forms of consumption tax. In theory, the base of the various consumption taxes is the same; hence, their economic impact and revenue yield should not differ. In practice, however, open economy aspects and feasibility constraints imply that there are important differences among them. The VAT emerges as the preferred choice, primarily because it is the most neutral and feasible alternative. The VAT does not affect the forms and methods of doing business or, more broadly, trade and investment, and does not discriminate between domestically produced and foreign-made products. Importantly, the VAT is not a cost to business.

These observations form the background for a discussion in the third section of how the tax is perceived by lawyers, economists, and accountants. Lawyers emphasize that the VAT is a tax on transactions – sales and purchases – made by registered businesses. This requires clear definitions of who should be taxed, on what, where, when, and to what extent. In short,

[1] This paper was originally presented at a conference on Value Added Tax and Direct Taxation: Similarities and Differences, organized by the Institute for Austrian and International Tax Law in Vienna, 26-28 March 2009. Subsequently, the paper was published in *Tax Notes International* (27 July 2009) and included in the proceedings of the conference, which were edited by Michael Lang, Peter Melz and Eleonor Kristoffersson, and published in 2009 by Amsterdam's International Bureau for Fiscal Documentation.

unambiguous legislation is essential if the VAT is to be effectively implemented. Economists argue that the VAT is a tax on labour income and the business cash flow component of capital income. Unlike the income tax, the VAT does not include the normal or hurdle rate of return on capital in its base; that is, at the margin, it does not interfere with investment. As accountants show, consumption taxes can be best understood by working through the intricacies of a profit & loss (P&L) account in determining the tax bases and liabilities. It appears that there is much to learn from the insights provided by the views of the various professions. Finally, the fourth section sums up the three major lessons learned from world-wide experience. It is important that the VAT should be as broadly based as possible and that a single rate apply to all transactions. Only exports should be freed of tax.

Note that this paper is a primer on VAT, not a detailed treatment of all its legal aspects, economic effects, or political implications. Readers whose appetite has been wetted should refer to Ebrill et al (2001); Schenk and Oldman (2007); Bird and Gendron (2007); Crawford, Keen and Smith (2010); and the many references cited in these publications.

1.2 Broad-based consumption taxes

Much can be learned about the VAT by comparing it with other broad-based consumption taxes. Therefore, this section defines the various forms of consumption tax that can be distinguished. This is followed by an exposition of the computation of the tax base of each consumption tax, highlighting its equivalence with other consumption taxes. Subsequently, the practical and economic differences between the various taxes are noted. The VAT emerges as the consumption tax of choice, a view that finds support in the VAT's prevalence around the world.

1.2.1 Forms of consumption tax

The nature of the VAT can be best understood by comparing it to the following broad-based consumption taxes, which are levied or have been proposed in the U.S., the EU, or in the tax literature.

- A retail sales tax (RST) that is applied to sales of goods and services by registered businesses to consumers and unregistered entities.
- A credit-invoice method of VAT that taxes all sales by registered businesses but permits these businesses a credit (deduction) for the tax on purchases (including investment goods) invoiced by other registered businesses against the tax on sales.
- A direct subtraction method tax (also called business transfer tax (BTT) in the U.S.) that permits registered businesses to deduct purchases (including investment goods) from other

registered businesses from sales and that taxes the difference between sales and purchases directly rather than indirectly as under the VAT.[2]

- An addition method tax that taxes aggregate wages as well as residual value added (capital income) by registered businesses as computed from their P&L accounts.
- A flat tax, much discussed in the U.S. tax literature, that allows registered businesses to deduct wages from value added as calculated under the direct subtraction method, but that taxes these wages at the level of individual wage earners (permitting a basic exemption). Residual value added is taxed at the business level, without an exemption – hence the name “flat tax.”
- A personal expenditure tax that taxes expenditures on goods and services at the level of the taxpaying individual by subtracting savings (including loan repayments and purchases of stocks, bonds and non-residential real estate) from aggregate incomings (including loan receipts and proceeds from the sale of assets), both calculated on a cash-flow basis.

1.2.2 Equivalence of consumption taxes

The equivalence of the various consumption taxes can be illustrated best by reference to the stylized example in table 1.1, which traces the manufacture and sale of the desk at which the first draft of this paper was written.[3] Following the production and distribution cycle, we start with the lumber company P (the primary producer), who sells wood to the furniture manufacturer M, who delivers the desk to the wholesaler W, who distributes it to the furniture store R (the retailer), who in turn puts the desk at our disposal. For simplicity, it is assumed that each stage purchases the whole output of the previous stage and that P has zero inputs.

In each stage, the value of the inputs increases by the value of labour (wages) and capital (to be defined below) applied in the production or distribution of the desk. In terms of the example: A.2 + A.3 = A.1, which can also be written as: A.3 = A.1 – A.2. In other words, value added is identical to the difference between sales and purchases. Consequently, at the final (retail) stage, the sum of all values added throughout the production-distribution process, and, by the same token, the sum of all the differences between sales and purchases (in either case, €2.000 in the example), equals the consumer price, exclusive of tax.

[2] In this paper, the acronym VAT is reserved for the credit-invoice method of consumption tax, although, in principle, the direct subtraction method tax, the addition method tax and the flat tax also can be considered variants of value added taxation.

[3] The example is based on Cnossen (1998).

Table 1.1 Tax liabilities under various forms of consumption tax levied at a rate of 10% (in €)

Basic information/kind of tax	P	M	W	R	Total
A. Transactions (exclusive of tax)					
1. Sales	400	1.200	1.400	2.000	-
2. Purchases	0	400	1.200	1.400	-
3. Value added (A.1 – A.2)	400	800	200	600	-
a. Wages	(380)	(750)	(190)	(560)	-
b. Capital income	(20)	(50)	(10)	(40)	-
B. Retail sales tax					
4. Tax on retail sales (10% of A.1/R)	-	-	-	200	**200**
C. Value-added tax (VAT)					
5. Tax on sales (10% of A.1)	40	120	140	200	500
6. Tax on purchases (10% of A.2)	0	40	120	140	300
7. Net tax (C.5 – C.6)	40	80	20	60	**200**
D. Direct subtraction method tax					
8. Tax on sales minus purchases (10% of A.3)	40	80	20	60	**200**
E. Addition method tax					
9. Tax on aggregate wages (10% of A.3a)	38	75	19	56	188
10. Tax on capital income (10% of A.3b)	2	5	1	4	12
11. Total tax	40	80	20	60	**200**
F. Flat tax					
12. Tax on individual wages (10% of A.3a)[a]	38	75	19	56	188
13. Tax on capital income (10% of A.3b)	2	5	1	4	12
14. Total tax	40	80	20	60	**200**

Source: Adapted from McLure (1989).
[a] Ignoring the basic exemption applied at the individual level.

The example incorporates a number of accounting identities, which are worth repeating because they are fundamental to a good understanding of the VAT. Thus, the consumer price is always equal to the algebraic sum of all values added, is always equal to the sum of the differences between sales and purchases, and is always equal to the sum of wage payments and capital income. If this is borne in mind, it will readily be apparent that exactly the same total tax can be collected in either of two ways:

- In full under a retail sales tax.
- Fractionally throughout the production-distribution process by confining the tax to the value added at each stage. In turn, the fractional or multistage collection technique can be implemented in either of four ways:
  - Indirectly by crediting the tax on purchases against the tax on sales under the indirect subtraction technique, called credit-invoice VAT;
  - Directly by subtracting purchases from sales and applying the tax rate to the difference under the direct subtraction method;

- Directly by taxing aggregate labour income and capital income jointly at the business level under the addition method; or
- Directly by taxing labour income and capital income separately at the individual and business level, respectively, under what is called the flat tax.

Table 1.1 illustrates these accounting identities. Under the basic assumption that the tax base and tax rate are identical, the total net tax collected under a retail stage tax (that is, €200, line B.4) equals the tax collected throughout the production-distribution process under the VAT (C.7), which equals the tax under the direct subtraction method tax (D.8), which equals the tax under the addition method tax (E.11), which, finally, equals the tax collected under a flat tax (F.14).

The computation of the tax liability under the personal expenditure tax is not shown in table 1.1 because it is not derived from P&L accounts but from aggregate recordings of incomings and outgoings (savings) by individuals. Nevertheless, given the same base and rate, the tax liability under the personal expenditure tax should be the same as under the other consumption taxes.

1.2.3 Differences between consumption taxes

Although in theory all consumption taxes are economically equivalent, in practice various important differences arise between them. Design and feasibility constraints, and open economy aspects have important implications for achieving basic, if sometimes conflicting, tax objectives, such as:

- Fairness in the tax burden distribution;
- Neutrality with respect to producer and consumer choices;
- Tax revenue allocation to the country of consumption (destination principle);
- Minimization of administration and compliance cost; and
- Restraining the ability of special interest groups to tinker with the tax base and rate (political robustness).

Each of these implications is examined briefly below.

Fairness

The retail sales tax, VAT, direct subtraction method tax, and the addition method tax are *in rem* taxes collected at the business level, without regard to the personal circumstances of individual consumers, who are assumed to bear the tax. In this context, fairness simply means that all goods and services should be taxed alike. The flat tax and, especially, the personal expenditure tax, on the other hand, are *in personam* taxes, primarily collected at the individual level and hence equipped to incorporate basic allowances and graduated rates in order to achieve vertical equity goals. In fact, the personal expenditure tax, just like the income tax, can be levied fully in accordance with the ability-to-pay principle.

Neutrality

If consumption taxes are not to interfere with producer and consumer choices, the base should be defined as comprehensively as possible, while producer goods should not be taxed. As shown in real world experience, this is possible under the VAT, but the retail sales tax has difficulty reaching services performed by small establishments (there is no tax on purchases that can be linked to the tax on sales) and in freeing dual-use goods (which can be used for exempt business as well as taxable personal purposes) from tax. Under the VAT, a tax credit will not be permitted unless the taxpayer proves to the satisfaction of the tax authorities that the dual-use goods have been applied for business purposes.[4]

There is no widespread experience with the design and administration of other *in rem* consumption taxes, but since they are accounts-based rather than transactions-based, in practice equal treatment of all goods and services may be more difficult to achieve than under the VAT. Presumably, the flat tax and the personal expenditure tax should be judged primarily because of their effects on the work-leisure choice and the intertemporal consumption choice. All consumption taxes are neutral regarding the choice between present and future consumption, but they discriminate in favour of leisure, which cannot be taxed. By contrast, an income tax distorts both the work-leisure choice and the intertemporal consumption choice. However, since the base of the income tax is broader than the base of a consumption tax, the rate of an income tax can be set at a relatively lower level to yield the same amount of revenue. This lower rate should mitigate distortions whose size tends to increase with the square of the tax rate. Accordingly, it is an empirical question whether an income tax or a consumption tax is, on balance, more distortionary.

Destination principle

In an open economy, the revenue of the retail sales tax, VAT and the direct subtraction method tax is allocated to the country of consumption by applying appropriate border tax adjustments (BTAs). Exports are freed of tax, and imports are taxed on par with domestically produced goods. In practice, the VAT is better equipped to apply correct BTAs than either the retail sales tax or the direct subtraction method tax. The difficulty of freeing dual-use goods from tax under the retail sales tax means that the tax enters into export prices, while imports (whose price does not include any tax on dual-use goods) tend to be undertaxed compared with similar domestically produced goods. Under the direct subtraction method tax, furthermore, there is no

[4] This favours the VAT on the plausible assumption that a taxpayer is less likely to cheat the tax authorities under the VAT than his suppliers under the retail sales tax. Under the retail sales tax, moreover, a taxpayer has an incentive to treat his customer no less favourably (by refusing the exemption) than his competitor might do. For a thorough comparison of the VAT and the retail sales tax, see the next paper in this study.

presumptively correct documentary evidence (such as VAT invoices) of tax paid in previous stages of production and distribution, which hampers the application of unambiguous BTAs.[5]

In contrast, the addition method tax, the flat tax and the personal expenditure tax would be levied on an origin basis (exports taxed, imports free of tax) or a source basis, to use income tax terminology. Generally, this means the primary impact of the tax is on producers, because consumers can buy goods at world prices without tax. In economics literature, origin taxation is more likely to violate production efficiency than destination taxation (Diamond and Mirrlees, 1971).[6] The taxation of exports, moreover, would invite transfer pricing issues similar to those that bedevil the corporation tax under an arm's length separate accounting system.

Administration and compliance costs

Compliance and tax administration costs should be largely the same under the VAT, the retail sales tax and the direct subtraction method tax, but these costs would probably be greater under the flat tax and the personal expenditure tax, which are mainly collected at the level of individuals. Presumably, the retail sales tax, the direct subtraction method tax and the addition method tax are more vulnerable to evasion than the VAT. Administratively, the retail level tends to be the weakest link in the production-distribution chain. The account-based nature of the direct subtraction method tax and the addition method tax also implies that the tax is not shown on invoices. Hence, there is less of an audit trail than under the VAT. Also, sellers and buyers do not have opposing interests in the amount of tax that is being charged. The personal expenditure tax probably is the most complicated consumption tax, because it requires the registration and monitoring of wealth.

Political robustness

Politically, the VAT is the most robust consumption tax, primarily because pre-retail firms do not benefit from exemptions that make it impossible for them to pass the tax of their suppliers on to customers. By contrast, the subtraction method tax, the flat tax and the personal expenditure tax, and to a lesser extent the retail sales tax, are vulnerable to erosion through political favouritism. Under the direct subtraction method tax, it would be tempting to exempt some "worthy" product, sector, or activity. The flat tax and the personal expenditure tax would be susceptible to the same politically motivated concessions as the individual income tax.

[5] This feature might invite objections from trading partners, who would argue that the direct subtraction method tax is not a tax on products per se but rather an accounts-based tax on value added comparable to the business income tax, and hence not eligible for export rebate under the rules of the World Trade Organization (WTO).

[6] See the lucid exposition in Crawford, Keen, and Smith (2010). These authors point out that under the equivalence theorem, it is asserted that it does not matter for trade and investment whether goods and services are taxed on a destination or an origin basis. Since imports are exchanged for exports, a tax on exports is equivalent to a tax on imports. In practice, however, the conditions for the equivalence theorem to hold are so restrictive that it is of little value for policy purposes.

1.2.4 VAT: the preferred choice

The VAT emerges as the consumption tax of choice. A well-designed VAT does not distort trade and investment and is highly successful in applying appropriate BTAs. This neutrality feature is important for the proper functioning of common markets, such as the EU, and free trade areas, such as NAFTA, which do not permit discriminatory taxes on imports or subsidies on exports. Beyond that, the VAT is a productive, stable and flexible source of government revenue. Since a VAT is collected on a current basis, say, monthly, its revenue generating capacity is not affected by inflation and the effect of rate changes on revenue is immediately visible. While the VAT scores high on neutrality and feasibility grounds, as an *in rem* tax it cannot be levied on an ability-to-pay basis, but this should be acceptable if adjustments to the income tax and social benefit schemes can be made.

Table 1.2 Workings of the value-added tax

a. Basic transactions, excluding VAT (in €)

Production distribution chain	Purchases	Sales
Producer	0	400
Manufacturer	400	1200
Wholesaler	1200	1400
Retailer	1400	2000
Consumer	2000	

b. VAT payments to suppliers and by buyers (10% tax in €)

Production distribution chain	VAT paid to supplier	VAT paid by buyer
Producer	0	40
Manufacturer	40	120
Wholesaler	120	140
Retailer	140	200
Consumer	200	

c. Fractional collection of VAT paid by consumer (in €)

Production distribution chain	Tax paid to supplier	Tax paid to government
Manufacturer	200	
Wholesaler	140	60
Retailer	120	20
Consumer	40	80
Producer		40

The VAT's neutrality deserves to be emphasized. For this purpose, the basic transactions, shown in table 1.1, are replicated in table 1.2a. Value added – the difference between sales and purchases – is not shown, simply because businesses, unlike authors of textbooks, do not compute it. In practice, for any business, the VAT is shown on the invoices that it issues to its registered buyers and that it receives from its registered suppliers, while VAT payments to suppliers and by buyers are made accordingly, as shown in table 1.2b. Generally, the VAT on all purchases made for the purpose of the business is immediately creditable against the tax on (unrelated) sales, or, if there are no sales, any excess credit is eligible for refund without undue delay.[7] Consequently, no VAT is collected by government on transactions between registered businesses.

But if no net tax is borne by registered businesses in relation to their own value added, why does each firm nevertheless remit some tax to the tax authorities? To understand this apparent paradox, look upstream at financial flows rather than downstream at the flow of goods and services. The answer is then, as shown in table 1.2c, that the consumer pays the full tax that is collected, again in full, by the retailer, but which is remitted to the tax authorities by all registered businesses in proportion to their share in the total value added embodied in the final product. Any net tax remitted by upstream firms is simply paid to them by their successors in the production-distribution chain. The only plausible assumption that needs to be made for this to occur is that the average length of time for remitting tax and processing any net refunds is the same as the average length of time required for settling accounts receivable and payable (inclusive of VAT).[8]

It is this feature that has made the VAT such a neutral tax from a business point of view. It ensures that the effective rate of tax does not depend on the forms or methods of doing business. The rate is the same (and equal to the legal rate) regardless of how many stages a good passes through before it reaches the consumer or, for that matter, whether the value is added in earlier rather than later stages in the production-distribution process. The VAT is also neutral between capital-intensive or labour-intensive modes of production, between the corporate and the non-corporate form of business, or between home-produced and foreign-made goods.

In sum, the timing of tax collections under the VAT is the same as under a retail sales tax. Under both taxes, net tax is collected only when taxable products leave the "ring" of registered firms and are sold to final users or consumers (or to small, unregistered firms). So, why not impose the tax at retail only? Because retailers are less likely to default on the VAT invoiced to them by their suppliers than on the tax they would have had to pay in full to the tax authorities if, instead, an equivalent retail sales tax had been imposed. This feature makes the VAT particularly robust from a tax collection point of view that is reinforced by requiring sellers to state the VAT on invoices. This facilitates the correct and expeditious application of BTAs (the VAT shown on the exporter's purchase invoices is simply refunded) and compliance control

[7] In legal terms (as stated unequivocally in Article 167 of the EU's Council Directive (2006), a taxable business's right to a tax credit (and refund) arises *at the same time* that the supplier has to account for the tax: the date of both events is based on the same VAT invoice date.

[8] To be sure, cash flow benefits (or costs) arise under the VAT (as well as a retail sales tax) if a taxable business's collection date (the date at which the tax is collected from customers before being handed over to the tax authorities) does not coincide with the remittance date (the date after the collection date but before the latest day designated for handing over the tax). For a general treatment of cash flow benefits and costs, see Sandford, Godwin, and Hardwick (1989).

(cross-checking). In other words, the tax leaves a clear audit trail. The invoice method also facilitates the calculation of the tax liability: the tax shown on all purchase invoices is simply summed and subtracted from the tax shown on all sales invoices.

1.2.5 Prevalence of consumption taxes

Not surprisingly, the VAT is the most prevalent form of consumption tax in the world. Some 150 countries have adopted it, although in practice differences can be large. Viewed globally, the advance of the VAT is the most significant development in the field of taxation in the past 50 years. The march of VAT started in the 1960s in the EU (where the introduction of the harmonized VAT is a nonnegotiable condition for membership) and South America, and ended in the 1990s in Central and Eastern Europe and the countries that are now members of the Commonwealth of Independent States (CIS, the republics of the former Soviet Union). Australia is the latest industrialized country that has converted to VAT. India is set to introduce a dual VAT, levied separately at the state as well as the federal level. The spread of the VAT owes much to the IMF's Fiscal Affairs Department, where Michael Keen has been the intellectual driving force.

The retail sales tax (RST) is levied by 45 out of 50 U.S. States and the District of Columbia (plus some 9,000 local governments), as well as 3 out of 10 Canadian provinces.[9] The retail sales taxes in the U.S. are not as broad-based and neutral as most VATs are because they exclude most services from the base and widely tax investment goods. The Nordic countries and Switzerland also used to levy a retail sales tax, but these countries switched to the VAT because it is better equipped to free producer goods of tax and easier to enforce. In the U.S., the retail sales tax received support (generally, as a replacement for the income tax) from Sen. Richard G. Lugar, R-Ind., former House Ways and Means Committee Chair Bill Archer, former Reps. Dan Schaefer and Bill Tauzin, and the lobbying group Americans for Fair Taxation.

The direct subtraction method tax used to be levied in Belarus, apparently with little success (Bird, 1995). Further, some CIS countries used to impose a tax credit type of VAT through producer stages, but taxed distributors on their margins. Although this does not seem to make much sense (the difference in function between producers and distributors can hardly be made relevant for tax purposes), the explanation should be sought in the way in which businesses were taxed under the old turnover tax (Summers and Sunley, 1995). In the U.S., the direct subtraction method tax has been pushed by Rep. Sam Gibbons and the lobbying group

9 The Federal Government in Canada levies a VAT, called Goods and Services Tax (GST) as does the province of Québec. The Atlantic provinces (New Brunswick, Newfoundland and Labrador, and Nova Scotia, as well as, recently, Ontario and British Columbia) have piggybacked the federal VAT in the form of surtaxes. Oil-rich Alberta has neither a retail sales tax nor a GST.

American Council for Capital Formation. The appeal of this tax lies in its resemblance to a business tax, which may enhance its acceptability to consumers.

The flat tax has been proposed by Robert Hall and Alvin Rabushka (1985, 1995). It has received much attention in the U.S. because its wage component resembles a progressive income tax through the application of a basic exemption. As a result, it mitigates the regressivity of a consumption tax for lower-income groups. What the flat tax cannot do, of course, is make the tax burden distribution more progressive for higher-income groups who receive capital income. In the U.S., legislation for a flat tax has been tabled by former House Majority Leader Richard K. Armey and Sens. Richard C. Shelby, R-Ala., and Arlen Specter, D-Pa.

The addition method tax is used in some countries to tax the value added by financial institutions, which is difficult to compute under a tax credit invoice VAT, because the intermediation charge that should be taxed is embedded in the interest, premium, or return, which should not be taxed. Israel, Argentina, and France have experience with the addition method tax. Italy administers a direct addition method tax, called IRAP, at the regional level. It is not a destination-based VAT, however, because the tax is not refunded at export or levied at import.

India and Sri Lanka used to levy a non-cash flow type of personal expenditure tax in the 1950s, but abandoned it after a few years because the tax proved difficult to administer properly. Subsequently, the feasibility of the expenditure tax has greatly improved following the pioneering work of an able lawyer, William Andrews (1974), and in his wake the U.S. Department of the Treasury (1977) and the Meade Committee (1978). Andrews showed that annual taxable consumption expenditures can be computed on an aggregate cash flow basis as the difference between incomings and savings rather than by having to add up all individual expenditures made during the year. In the U.S., the expenditure tax, called Unlimited Savings Allowance Tax (USA) tax, has been tabled by the Strengthening of America Commission under the leadership of former Sens Sam Nunn and Pete V. Domenici, who proposed that it be combined with a direct subtraction method tax at the business level (Seidman, 1997).

1.3 Lawyers, economists, and accountants

This section discusses the views of the legal, economic, and accounting professions on the VAT. There is much to learn from the opinions, which emphasize different aspects of the tax.

1.3.1 The rigor of lawyers

VAT law design

Lawyers are indispensable in making the VAT operationally possible. Unambiguous legislation is essential if a VAT is to be effectively implemented. Under any tax, but particularly a tax that is based on voluntary compliance, clear definitions are required of who should be taxed, on what, where, when, and to what extent. In legal jargon, the terms, “taxable person,” “taxable and exempt supplies,” “place and time of supply,” and “taxable value” should be minutely prescribed.[10]

Taxable persons, who must apply for registration, are liable to tax for all amounts received or receivable by them for taxable supplies made in the course of a business, trade, or similar activity. Persons, natural and legal, are considered taxable persons only if they make taxable supplies independently. This excludes employees and agents acting for and on behalf of a principal from the taxable persons category. Only taxable persons can issue VAT invoices, which entitle buyers of taxable supplies to a credit for the tax shown on the invoice. In addition, they must keep prescribed records of their economic activities, which serve as the basis for verifying whether or not they have met their obligations.

The VAT is imposed on “supplies of goods and services,” meaning all economic activity unless specifically exempted. A supply of goods is defined as “the transfer of the right to dispose of tangible property as owner,” a civil law concept. Generally, tangible property includes “electricity, gas, heat, refrigeration, and the like.” Services, tangible as well as intangible, are defined in catch-all fashion as “any transaction that does not constitute a supply of goods,” including “obligations to refrain from an act or to tolerate an act or situation.” To be taxable, supplies must be made against consideration, called the “taxable value,” which includes all forms of payment received by the supplier, in cash or in kind, whenever and however paid, regardless of who pays them. Gifts are not taxable, but non-business use of a supply, e.g. for personal or employee consumption, is taxable if provided free of charge. Exceptionally, arm’s length prices may be substituted for actual realized values, for example if the parties to a transaction are the same or related.

[10] For an excellent summary treatment of the legal issues, see Williams (1996).

When it has been determined that a supply of goods and services has taken place, it is important to ascertain the place and time of the supply. The charge to VAT extends only to goods and services supplied within a particular taxing jurisdiction or imported into that jurisdiction. Supplies of goods are located where the goods are delivered, made available, or handed over, except if goods are to be assembled or installed, in which case the place of supply is the place where the goods are assembled or installed. Since services cannot be the subject of physical observation and control, some other definition of the place of supply is needed. Under the EU's new rules the place of supply for business-to-business (B2B) services is the place where the recipient of the services has his business, while business-to-consumer (B2C) services are taxed at the place of the provider of the services.[11]

Furthermore, the timing of the supply is important for deciding when a VAT invoice has to be issued. This in turn determines the tax period in which the VAT is due regarding the supply. As a rule, the time of supply occurs when an invoice is issued, generally within a week of the time when goods are delivered, made available, transported or paid for – whichever event occurs earlier. The time of supply of services occurs when the services are rendered. Generally, input tax credits follow these timing of supply rules. Apportionment rules are in place for those cases when taxable persons make exempt as well as taxable supplies, or when they make personal use of business assets. No input tax credit is allowed for a number of goods and services which although used in the course of taxable activities are indistinguishable from goods and services bought by consumers. Examples are personal or living expenses, employee benefits, recreational equipment and facilities, and passenger vehicles.

The VAT as a transactions tax

As implied by this very brief description of VAT rules, the legal profession is quite adamant about viewing the VAT as a tax on transactions by registered entities against consideration. Lawyers also maintain that the VAT is a tax on consumption expenditures rather than on, more broadly, consumption activities. Moreover, they assert that the VAT is a tax on current consumption – on all goods and services that leave the ring of registered entities, regardless of whether they are consumed immediately or embody a stock of services that are consumed over the lifetime of the asset (for example, residential housing, cars, household appliances, and furniture).

This contrasts with the view held by economists that, ideally, the VAT should tax all consumption activities, including self-produced items of consumption, such as meals, because this would ensure equal treatment with other products bought in the marketplace. Lawyers would not consider this a taxable event, although they would tax, say, vegetables withdrawn

[11] Both rules are subject to major overriding exceptions concerning, among others, services to immovable property (taxed where the property is situated), cultural and educational services, and restaurants (taxed where actually performed), transportation (taxed proportionate to distance), and vehicle rentals (taxed where provided).

from business stock for personal use by the greengrocer as a taxable self-supply on the argument that the vegetables are produced in a business context, not in a personal capacity. Accordingly the greengrocer's home-grown carrots used for personal consumption (and not sold to customers) would not be subject to VAT. Economists would like to tax both events.

Furthermore, economists maintain that the VAT is a tax on flows rather than stocks. In other words, ideally, the home-owner should be taxed periodically on the rental value of his property, just as the tenant should be taxed on the rent invoiced by the landlord. However, lawyers would argue that residential property should be taxed when the house is transferred from the taxable builder to the exempt owner-occupier. This follows from the legislator's point of view that owner-occupiers should not be registered for VAT purposes. Lawyers point out that the i*n rem* nature of the VAT does not support the position that durable consumer goods should be treated differently from nondurable goods. As a transactions-based tax, VAT should be imposed when the title to a durable consumer good passes on to the exempt consumer.[12]

Finally, the tendency of lawyers to accept the legislator's product as given means that they tend to pay notably less attention to the distortions caused by the VAT than do economists. These distortions, which are a cost to society over and above the revenue yield of the VAT, result mainly from exemptions and, to a lesser extent, from rate differentiations. Exemptions distort input choices (for example, outsourcing) and harm exports. Rate differentiations interfere with consumer preferences and hence producer choices.

1.3.2 The insight of economists

Economists are good in analyzing the nature of a consumption tax.[13] This can be done on the basis of a simple equation showing the identity between the sources (wages and capital income) and the uses of income (consumption and savings) in a household budget or a country's national accounts. The following identity shows the relationship between the two sides of the budget for a closed economy and abstracting from government operations.

$$Y \equiv W + R \equiv C + S \; (\equiv I) \qquad (1)$$

or

$$C \equiv Y - S \equiv W + R - I \qquad (2)$$

[12] Both views result in the same tax liability when the VAT on the value of newly created residential property is viewed, as it should be, as the tax on the present discounted value of the future dwelling services of the property. This implies, of course, that increases or decreases in the value of the dwelling services, reflected in changes in the value of the property, are not included in the tax base. For a more detailed treatment of the differences between an economist's and a lawyer's point of view of VAT (illustrated by the treatment of real estate), see Cnossen (1996).

[13] For a useful treatment, see Auerbach (1997).

Y is total income composed of labour income W and capital income R, C is consumption, and S is savings (which equals I, that is, investment). R is the sum of the risk-free or normal return on capital (in other words, its opportunity cost), entrepreneurial rewards for risk-taking (which can also be considered as labour income), and economic rents. In sum, R represents business profits, conventionally computed. The opportunity cost of capital is also called the hurdle rate of return. At the margin, it equals the rate of return on a riskless project. Accordingly, it can be likened to the inflation-adjusted, risk-free world rate of interest. A business will go on investing up to the point at which the expected rate of return on the project just equals the discount rate, which is the opportunity cost of capital.

Each of the three terms in identity (2) can serve as the base for a particular consumption tax. Basically, the retail sales tax has C as its base. The retail sales tax is paid by consumers to businesses selling at retail, who remit the tax to the government. Similarly, the personal expenditure tax can be identified with a tax on Y – S levied at the individual level. It resembles the current tax on wage income, which permits a deduction for pension contributions, but taxes the contributions plus accumulated capital income on later payout, while the income net of the pension contribution is currently consumed.

The term W + R – I, representing value added, forms the base for the other forms of consumption tax. It is readily apparent that at the business level this value added is equivalent to the difference between sales and purchases in the P&L account, but calculated on a cash flow basis.[14] In other words, investments (including inventories) are expensed immediately; the tax is fully creditable against the tax on sales, to use VAT terminology. This contrasts with the income tax's matching principle under which the cost of investments is expensed over their economic life; hence, the normal return on capital is taxed.

As stated above, value added is taxed directly under the direct subtraction method tax, while it is taxed indirectly under the VAT. Under the flat tax, wages (W) are also deducted from value added (as calculated under the direct subtraction method) and subsequently taxed at the level of individual earners. The remaining tax base, that is, R – I (appropriately called business cash flow rather than capital income), is taxed at the business level. An important question under the flat tax is what to do with pension contributions: tax them as wages and exempt payouts (prepayment method) or exclude them from wage income and tax later payouts along with the capital income accumulated in pension funds (standard method). The flat tax, as proposed in the U.S., follows the standard method. In principle, the present discounted value of the tax liability under this standard method equals the tax liability under the prepayment method.[15]

[14] Cash-flow accounting should not be confused with cash basis accounting. In contrast to cash basis accounting, cash-flow accounting is accrual based.

[15] For the equivalence and the conditions under which it holds, see US Department of the Treasury (1977).

The taxation of business cash flow distinguishes a consumption tax from a wage tax, which taxes W only. The two are equal if R – I is zero, which it is in a fully competitive market in which there are no economic rents to be earned. These rents can be associated with, for instance, head starts, such as a favourable location, a well-known brand name, or a new technique or product. Furthermore, investment (I) may be taken to represent the present value of the services rendered by new business assets discounted at the normal rate of return on capital. Therefore, R – I represents the inframarginal return on old business assets. On the introduction (or increase) of a consumption tax, this tax is capitalized in the form of a lower value of the old assets suffered by the owners. For this reason, economists often refer to the VAT as a tax on wages plus old capital.

This discussion shows that the only difference between a consumption tax and an income tax concerns the tax treatment of the normal risk-free return on capital, which is exempt under a consumption tax but taxed under an income tax. It follows that a VAT can be converted into an income tax by disallowing an immediate credit for the tax on investment goods against the tax on sales, but permitting this credit to be spread over the economic life of investment goods. By the same token, an income tax can be converted into a VAT by taxing wages plus business profits after permitting an immediate write-off for investment goods and clawing back any deduction for interest.[16]

Although their insights are most illuminating in understanding the nature of the VAT, economists tend to be dismissive of the legal requirements for a good tax, which are essential for tax certainty. VAT practice, which has to be rooted in civil and commercial usage, is often more obstinate than economists realize or are willing to admit.

1.3.3 The precision of accountants

Accountants rightly believe that the VAT and other consumption taxes are best understood by working through the computations that are required to ascertain their bases and liabilities from the P&L accounts of taxable business firms. Moreover, this makes it possible to compare the consumption tax base directly with the base of the business income tax, which is also derived from the P&L account.

VAT and the profit & loss account

The P&L account is the central summary statement of a business firm's activities. Consider the stylized example in table 1.3, which shows the P&L account of a EU trading firm (re-arranged to aid the understanding of the subsequent computations) as well as the items that enter into the VAT base and the corresponding gross and net tax liabilities.

[16] For an interesting legal analysis showing the link between an income tax and a consumption tax, see Slemrod (1997).

Table 1.3 VAT and the profit & loss (P&L) account (in €, excluding 10 percent VAT)

Costs	P&L Account	VAT Base	Tax	Proceeds	P&L Account	VAT Base	Tax
A. Purchases	800	1.100	110	B. Sales	1.900	1.900	190
Goods	950	950	95	Goods	1.600	1.600	160
Services	50	50	5	Services	300	300	30
Inventory - open: 150							
close: 350	– 200	-	-				
Machinery	-	100	10				
(depreciation - 4 yrs)							
C. Factor rewards	1.300	-	-	D. Inv. income	200	-	-
Wages	450	-	-	Dividends	125	-	-
Depreciation	25	-	-	Interest	75	-	-
Interest paid	35	-	-				
Net profits	790	-	-				
E. Totals (A + C; B + D)	2.100				2.100		
F. Value added and tax (B - A)		800	80				

The business sells goods and services that it produces by adding the value of the services of its labour and capital (understood as business cash flow, as defined above) to its purchases from other firms. The left side of the table, under A, shows the firm's purchases of goods and services, including a piece of machinery, which is depreciated over four years. Also, opening and closing inventories are shown; €200 has been added to inventory in the reporting period. The right side of the table, under B, shows the firm's sales of goods and services. Furthermore, C, factor rewards, gives details of the value added by the firm's labour and capital in the form of wages, depreciation, interest paid and net profits earned. Also, the firm has some stocks and bonds on which it earns investment income, which is shown under D.

The VAT computations are shown in the top of the table under A and B. VAT is charged at a rate of 10 percent on sales of goods and services, and a credit is permitted for the VAT on purchases. Accordingly, the net VAT liability is €80 (line F).

Clearly, the entries for purchases in the conventional P&L account cannot be used directly to ascertain taxable value added. The reason is obvious. Although the P&L account and the VAT both record the transactions on an accrual basis, the VAT is also levied on a cash-flow basis of accounting. Thus, no correction needs to be made for the change in the value of inventory, which must be made in the P&L account to match sales and purchases in the reporting period for business income or commercial purposes. Further, the cash flow basis of accounting implies that the tax on the purchase of machinery is credited immediately against the VAT on sales.

Note that the VAT does not enter the P&L account; it is not a cost to business. VAT would be included in the value of purchases shown in the P&L account if the purchases were exempt, yet VAT had been levied on the inputs used in producing the purchases. Of course, VAT may appear on the balance sheet under accounts payable or receivable.

Comparing consumption taxes

The figures in the P&L account (table 1.3) can also be used to compute the tax liabilities of other consumption taxes (and the business income tax), except the personal expenditure tax. For this purpose, the figures are regrouped in table 1.4. Cash flow accounting is applied to inventory and machine purchases, but the matching principle is applied to the calculation of the base and the liability of the conventional business income tax. The top of the table shows the tax base calculations, the bottom the computation of the tax liabilities.

The calculation of value added under the VAT, the direct subtraction method tax and the flat tax can be performed without much ado, but the calculation is less straightforward under the addition method tax. Wages are shown on a cash flow basis, but rents (inframarginal profits) must be ascertained by starting with taxable profits for business income tax purposes (that is, €790 EUR, line 13), subtracting investment income (€200, line 11; this is not value added by the firm), the purchase of machinery (€100, line 9) and the addition to inventory (€200, line 8), and by adding interest paid (€35, line 7) and depreciation (€35, line 6). Accordingly, rents total €350, which is added to wages (that is, €450) to obtain taxable value added of €800 (line 12).

The calculation of the retail sales tax is not shown in table 1.4. It would be imposed on sales (€1.900 in table 1.3) at a rate of 10 percent, so the tax liability would be €190. This amount is the same as the sum of the net VAT liability in table 1.4, that is, €80 (€190 VAT on sales minus €110 VAT on purchases)) plus the VAT on purchases, that is, €110, which, under VAT, is paid by the firm to its suppliers, who remit this amount to the government in proportion to their own value added.

The calculations in table 1.4, like the earlier accounting identities, establish that the four *in rem* consumption taxes and the flat tax are economically identical given the same base and rate. And, as noted above, this holds true for the personal expenditure tax.

Table 1.4 Computation of consumption tax and business income tax liabilities (In €, excluding 10% VAT)

P&L Account	Consumption taxes				Business income taxes	
	Tax credit method VAT	Direct subtraction method tax	Flat tax	Addition method tax	Conventional business income tax	Cash flow business income tax
Tax bases						
1. Sales	1.900	1.900	1.900		1.900	1.900
2. Purchases	– 1.100	– 1.100	– 1.100		– 800	– 1.100
3. Value added / gross profits	= 800	= 800	= 800		= 1.100	= 800
4. Wages			– 450	+ 450	– 450	– 450
5. Rents / cash flow			= 350		= 650	= 350
6. Depreciation				+ 25	– 25	
7. Interest paid				+ 35	– 35	
8. Inventory change				– 200		
9. Purchase of machinery				– 100		
10. Operating profits				+ 590	= 590	
11. Investment income					+ 200	
12. Taxable value added	800	800	800	800		
13. Taxable profits / cash flow					790	350
Tax liabilities						
A. VAT	80					
a. VAT on sales (10% of 1)	190					
b. VAT on purchases (10% of 2)	– 110					
B. Direct subtraction method tax (10% of 3)		80				
C. Flat tax			80			
a. Tax on wages (10% of 4)			45			
b. Tax on rents (10% of 5)			35			
D. Addition method tax (10% of 12)				80		
E. Business income tax (10% of 13)					79	
F. Cash flow business income tax (10% of 13)						35

Business income taxes

For comparison purposes, table 1.4 also shows the computation of the tax liabilities of two kinds of business income tax:

- A conventional business income tax, under which purchases are related to sales in the same reporting period (matching principle) and machinery is depreciated over a four-year period; and
- A cash flow business income tax, which allows the immediate expensing of inventory additions and machinery, but which does not allow a deduction for interest.[17]

[17] It should be noted that the cash flow variant is equivalent to a business income tax, conventionally computed, which permits a deduction from profits of the normal return on equity (equal to the inflation-adjusted world rate of interest) and which does not tax this return at shareholder level (nor the deductible interest on debt at debtholder level). This variant goes by the name of allowance for corporate equity (ACE) (Institute for Fiscal Studies (1991).

The application of the matching principle implies that a conventional business income tax includes the normal return on capital as well as rents (inframarginal profits) in its base. By contrast, a cash flow business income tax excludes the opportunity cost of capital from its base by allowing immediate expensing. In other words, its tax base consists of inframarginal profits. Not surprisingly, the base of a cash flow business income tax is the same as the item 'rents' in the base of the flat tax, that is, €350. Accordingly, the return on marginal investments, the hurdle rate of return, is not affected by a consumption tax. Other things being equal, this should promote saving and investment compared with an income tax.

Finally, the calculation of the various consumption and business income tax liabilities from the P&L account clearly indicates that all of these taxes are basically identical for tax compliance purposes. The VAT, like the business income tax, is an accounts-controlled tax. Accordingly, there is little difference between a VAT audit and a business income tax audit. This implies that these taxes should be administered by the same tax organization. VAT registration, return and payment processing activities could be placed in a separate department, but VAT audits should be performed jointly with income tax audits. Also, tax enforcement procedures should be closely linked to similar procedures for income tax purposes.

1.4 Lessons from world-wide experience

This paper has shown that a discussion of various alternative consumption taxes sheds light on the nature of VAT. Economically, the VAT is equivalent to a retail sales tax even with respect to the timing of tax collections. VAT is the preferred form of consumption tax, however, because it is collected piecemeal throughout the production-distribution process, does not interfere with the forms and methods of doing business, unambiguously relieves exports of tax, is politically robust, least vulnerable to evasion and avoidance, and relatively easy to understand for the business community. By not taxing the normal return on capital, VAT does not affect the hurdle rate of return on investment.

With VAT, the eye should be on the ball, and the ball is revenue. As an *in rem* tax, VAT can not be used to achieve vertical equity goals. Its main objective is to raise revenue as neutrally as possible. This requires the broadest possible base and a single rate. In this respect, the European VATs leave much to be desired (Cnossen, 2003). The EU pioneered the VAT and mistakenly tried to align its burden distribution as closely as possible to the old turnover taxes, although all member states had other more sophisticated instruments in place, such as income taxes and social benefit schemes, to manipulate overall tax and government expenditure distribution patterns.

With VAT, it is crucial to get it right from the start (Keen, 2009). Deviations from the undisputable requirements of a modern VAT are nearly impossible to undo once the tax has been introduced. Basically, the following lessons can be learned from the experience in new VAT countries, such as New Zealand, Singapore, and South Africa, and, to a lesser extent, Australia and Canada (which have unnecessarily muddled up the VAT rate structure).

- Limit exemptions to those dictated by strict administrative cost benefit considerations. Exemptions violate the logic and functionality of the VAT. They distort input choices and harm exports. Accordingly, most health, education, government, cultural and financial services should be brought into the VAT base.[18] Exemptions should be confined to elementary education and the sale of used residential housing.
- Levy the VAT at a single rate and do not impose a zero rate on so-called basic necessities, such as groceries. A zero rate on food is not a well targeted instrument to alleviate the VAT burden on the poor. In absolute terms, the benefit of a zero rate accrues mainly to middle- and higher-income consumers who buy more expensive varieties of food, eat out more often, and throw food away more easily.[19] Consequently, the concessionary treatment of food tends to give twice as much relief to higher-income groups than to low-income groups, an odd way of alleviating the plight of the poor. The zero rate should be confined to exports.
- Provide for a high threshold of at least €100,000 so that small businesses and farmers do not have to register and pay VAT, saving on administration and compliance costs. Of course, small entities would still pay VAT on inputs purchased from taxable businesses, implying that only a part of the potential revenue would be foregone.[20] At the same time, optional registration should be provided for small businesses, so they can pass the tax on inputs on to their customers, if desired.

[18] Surprisingly, the OECD calls these “standard exemptions,” although they do not meet basic standards of rationality or functionality (OECD, 2008).

[19] For these and other reasons why an industrialized country should levy the VAT at a single rate, see Cnossen (1999).

[20] Based on an earlier publication (Cnossen, 1994), Cnossen (2002) calculated that in the U.S. a $100,000 exemption would reduce the number of potential registrants (25 million at that time) to approximately 9 million (including 5 million voluntary registrants) – less than the registrants under a national retail sales tax. The exempt registrants would account for 2.6 percent of aggregate gross receipts. In other words, if their value added would be one-third of gross receipts and the VAT rate would be 10 percent, the revenue foregone would be less than 0.1 of gross receipts.

2 VAT coordination in common markets and federations: Lessons from the European experience[21]

2.1 Introduction

Against the background of an analysis of the choice between a VAT and an RST as the best broad-based consumption tax to deal with goods and services entering cross-border trade, this study examines the phenomenon of carousel fraud in the European Union. Although carousel fraud is by no means as important as shadow economy fraud and contrived insolvency fraud, it receives much attention. Various proposals have been made to deal with carousel fraud, principally by subjecting exports to VAT and giving an equivalent tax credit to importers. At the same time, exporting member states would pay the VAT collected by them to importing countries, which would restore the destination principle. This study argues that it is not the break in the VAT collection chain that is at the root of the problem, but the break in the VAT audit trail, which proscribes the reach of each state's VAT monitoring powers. Accordingly, cross-border audits are indicated, followed up by investigations and prosecutions, if necessary. The taxation of exports would simply shift fraudulent practices to the import stage through the use of false invoices. The German and Austrian proposal for converting the VAT into an RST is found wanting.

There is wide agreement that a broad-based consumption tax should be levied either in the form of a retail sales tax (RST) or a value-added tax (VAT). In theory, an RST and a VAT are both comprehensive, destination-based forms of consumption tax that take domestic consumer expenditures, not producer goods, as their base, and that cover the retail stage, either by definition (RST) or by design (VAT). An RST excludes producer goods through the suspension technique, while a VAT achieves this objective through the tax-credit invoice method. Both taxes include imports in the base but free exports of tax. Given equal coverage and tax rates, an RST and a VAT are identical, therefore, in their economic effects and in the distribution of their respective tax burdens. In principle, the only difference between the two taxes is the way in which the tax is collected by the tax authorities – in full from retailers under an RST and fractionally throughout the production-distribution process under a VAT.[22]

Important questions remain, however, about the feasibility of either tax at the state or provincial level in a common market or federation. To implement the destination principle (that is, to

[21] This paper was presented at two conferences organized by the American Tax Policy Institute, held September 14, 2008, and February 18-19, 2009, and subsequently published in *Tax Law Review* (Cnossen, 2010a). The author is grateful to Charles McLure for closely reviewing this paper and to Richard Bird, Pierre-Pascal Gendron, Bernd Genser and Walter Hellerstein for helpful comments on an earlier version.

[22] It should be emphasized that this does not effect the timing of tax payments to the government, which is the same under an RST and a VAT. Net VAT is collected only after the consumer (or non-registered trader) has been invoiced for the full amount of tax on his purchases, and it is this amount that is subsequently collected throughout the production-distribution process. In other words (just as under an RST), no net VAT is collected within the ring of registered firms, provided, quite plausibly, that the average length of time required for remitting tax and for processing any refunds is the same as the average length of time required for settling accounts receivable and payable. See Cnossen (1987).

effect taxation in the jurisdiction of consumption), it must be possible to apply and administer correct border tax adjustments (BTAs). How can (sub)national governments ensure that imports into their jurisdiction are included in the consumption tax base and that exports leave their jurisdiction free of tax? Since an RST seems inherently destination-based, is it in this respect superior to a VAT in taxing consumers and consumers only? Does the application of BTAs under state VATs depend on an overarching tax or coordination mechanism at the central or federal level? These questions are pertinent in a common market, such as the European Union (EU), but also in the United States (U.S.) where the debate on the most appropriate form of consumption tax – at both federal and state level – seems to be gaining momentum. If a federal VAT was adopted, could the states follow suit if they decided to convert their RSTs into VATs? More pertinently, can states introduce a VAT in the absence of a federal VAT?

The experience of state VATs in a borderless EU can be helpful in answering these questions. As background, the paper starts with a review in section 2.2 of the consumption taxes that are actually levied in the G-7 countries and the reasons that led various countries to prefer a VAT over an RST. In practice, an RST seems less effective than a VAT in confining the base to consumer goods and services and in effecting correct BTAs. A VAT emerges as the preferred form of broad-based consumption tax, but a VAT imposes tax throughout the entire production-distribution process and therefore requires explicit BTAs for goods as well as services. Prior-stage VAT has to be refunded to exporters and VAT has to be applied to imports from other taxing jurisdictions. Currently, in the EU, these BTAs, described in section 2.3, are affected through the accounts of exporters and importers.

The EU BTA arrangements are susceptible to fraud. VAT may not be paid at import (or a credit may be claimed for nonexistent imports) and refund claims may be filed for nonexistent exports (or goods may not actually be exported). Most attention is given to so-called carousel fraud, under which an importer charges VAT to his customer on goods or services bought VAT-free in another member state, but subsequently disappears without paying the VAT over to the tax authorities. His customer can take credit for the VAT, however, and even a refund if he subsequently exports the goods bought from the importer. VAT would be refunded without having been paid in previous stages of production or distribution. Section 2.4 examines the nature and extent of this type of fraud and other malpractices in the EU.

The European Commission and various authors have argued that intra-EU VAT fraud can be prevented by charging VAT on exporters in exporting states and remitting the proceeds to importing states to finance the VAT credits permitted to importers. This would repair the so-called break in the VAT-collection chain at internal EU borders, but maintain the revenue allocation under the destination principle. The proposals go by the name of "exporter rating" and are evaluated in section 2.5. Under another proposal, recently put forward by Germany and Austria, and reviewed in section 2.6, carousel fraud would be defined away by putting the liability for the VAT on buyers of goods and services rather than sellers. Reverse charging throughout the entire production-distribution process would transform a VAT into an RST. In effect, reverse charging would imply that no net VAT would be collected in any pre-retail stage of production or distribution.

Finally, section 2.7 summarizes the evaluation of current and proposed BTA arrangements in the EU. For the time being, the current setup is preferred. Exporter rating would simply shift VAT fraud from the export stage to the import stage. Actually, it is not the break in the VAT collection chain which matters to enforcement but the break in the VAT audit trail. This audit trail should be extended across EU borders, similar to the cross-border extension of states' police and judicial powers. In the U.S., it would be possible, of course, to charge the Internal Revenue Service (IRS) with monitoring the audit trail of state VATs. The paper concludes, therefore, that state VATs are feasible in the U.S., with or without a federal VAT.

2.2 Experience with RSTs and VATs

There is ample experience with RSTs and VATs at national and sub-national levels of government. Of particular interest for the U.S. debate are the reasons that countries have advanced in choosing VAT over RST, particularly as they affect interstate (and international) trade.

2.2.1 G-7 countries

Table 2.1 lists the consumption taxes that are levied in the G-7 countries: (a) by the U.S. and Canada – members of the North America Free Trade Agreement (NAFTA) along with Mexico, (b) by France, Germany, Italy, and the United Kingdom – four of the 27 member states of the EU (together accounting for nearly 80 percent of the EU's total gross product), and (c) by Japan, the fourth largest trading partner of the U.S. At the national level, the EU member states, Japan and Canada impose VATs. At the sub-national level, RSTs are found in the U.S. and Canada, while the province of Québec has a VAT.

In the U.S., an RST is levied by 45 out of 50 States[23], accounting for on average 31.8 percent of total state tax revenue (including RST-revenue collected by local governments), or 7.8 percent of total national tax revenue (2.2 percent of GDP) (OECD, 2008a). The coverage of the various RSTs differs widely across states and is far from comprehensive. Most states, for instance, do

[23] In addition, the District of Columbia levies an RST, as do some 9000 local governments, including counties, cities, school boards, and police departments. Local government RSTs are mostly piggy-backed on state RSTs. For a comprehensive treatment, see Due and Mikesell (1994) and for up-to-date information, Duncan (2010).

Table 2.1 G-7 Countries: Consumption Taxes in 2010

Country	Type of Consumption Tax[a]	States or Provinces	Tax Base	Rates[b] Standard	Rates[b] Lower[c]	Revenue as % of Total tax revenue[d]	Revenue as % of GDP
United States							
Federal	–	–	–	–	–	–	–
State	RST	45 out of 50 states plus DC; exceptions are Alaska, Delaware, Montana, New Hampshire, and Oregon	Goods; some services	4.0-9.25[e]	X	7.8	2.2
Canada							
Federal	VAT (GST)		Goods and services	5	0	17.3	3.1
Provincial	RST	Manitoba, Prince Edward Island, Saskatchewan	Goods; various services	5-10	X	..	..
	VAT (QST)	Québec	Goods and services	7.5	0	..	..
	GST-HST	British Columbia, Newfoundland and Labrador, New Brunswick, Ontario, Nova Scotia	Goods and services	8 (+5)	0	..	..
EU							
France	VAT	–	) Goods and	19.6	5.5	16.3	7.2
Germany	VAT	–	)services;	19	7	17.8	6.3
Italy	VAT	–	) common tax base	20	10	14.9	6.3
UK	VAT	–	) and administrative	15	0	18.1	6.7
			) procedures				
Japan	VAT	–	Goods and services	5[f]	–	9.2	2.6

Sources: Type of consumption tax and rates – U.S.: Duncan (2010); Canada: Bird and Gendron (2010); EU: European Commission (2010); Japan: International VAT Services (available on the internet).

[a] RST = Retail Sales Tax; VAT = Value-Added Tax, called Goods and Services Tax (GST) in Canada, Québec Sales Tax (QST) in Québec, and Harmonized Sales Tax (HST) in the Atlantic provinces, British Colombia, and Ontario.
[b] As percentage of the tax-exclusive value of taxable goods and services. The zero rate universally applicable to interprovincial and interstate exports is not shown.
[c] The letter "X" means that essential products (mainly food items) are exempted. In addition to the lower rates shown in the table, France, Italy, and the UK levy special lower rates of 2.1 percent, 4 percent, and 5 percent, respectively. These rates, however, are only applicable to one or two products. In France, special, generally lower rates are levied in Corsica.
[d] Revenue figures, drawn from OECD (2008a), relate to 2006 and are for all levels of government.
[e] Inclusive of (highest) local RST rates.
[f] Inclusive of the special 1 percent local consumption tax that is levied on the same base and collected along with the VAT.

not tax services, apart from the rental of tangible personal property, transient accommodation, and (selected) utility services.[24] Furthermore, while all states tax food consumed outside the home, less than half of all states tax food purchased for home consumption. Nearly all states exempt prescription drugs and several exempt clothing and footwear. Beyond that, all states include various producer goods in the tax base, which distorts the choice of production technique. Thus, one-half of all states explicitly taxes industrial and agricultural machinery. Furthermore, nearly all states tax various dual-use goods and services, such as building materials, utility services, computers, small transport vehicles, office equipment, stationery, and various other items that can be used for business as well as private purposes. Again, this distorts producer choices.

In Canada, an RST is levied by three out of ten provinces. The provincial RSTs resemble those levied by the U.S. states, although the tax base generally is somewhat broader. Interestingly, the province of Québec imposes its own VAT, basically on the same base as the federal VAT (GST).[25] The Canadian VAT resembles the EU VAT, although the rate of 5 percent is much lower than the average standard rate of 19.5 percent in the EU.[26] Noteworthy features of the Canadian VAT are the zero rating of basic groceries and prescription drugs, the partial rebates of VAT on purchases of inexpensive new homes and on purchases by the MUSH sector (municipalities, universities, schools, hospitals – recently renamed the MASH sector to reflect substitution of academic for universities) which is exempt in the EU, and VAT refunds for lower-income groups (presumptively established amounts based on previous year's incomes).

In the EU, all 27 member states – not just the four states listed in the table – levy VAT, because its adoption is a condition for membership.[27] The VATs in the EU are much more comprehensive than the RSTs in the U.S. Whereas the RST-bases cover on average 35 percent of total consumption expenditures, the harmonized EU VAT-base covers on average 67

[24] Only Hawaii, New Mexico, South Dakota, and West Virginia tax 100 services or more of 168 enumerated services (Tax Administrators News, 2005). Of course, all states with RST tax the value of distribution activities, such as wholesaling and retailing, carried on in the normal course of selling goods and included in the price of the goods. Also, the value of many services, although not taxed explicitly, is taxed indirectly if rendered to businesses that use the services to produce taxable goods.

[25] For a useful account of coordinating the Québec VAT with the federal VAT, see Bird and Gendron (2010). Oil-rich Alberta is the only Canadian province that levies neither RST nor VAT. This is also the situation in the three northern territories: Northwest Territories, Nunavut, and Yukon.

[26] Of course, the provincial GST or RST rates have to be added for the comparison. In Québec, for instance, this results in a combined rate of 12.88 percent, because the federal VAT of 5 percent is levied on prices inclusive of the provincial VAT of 7.5 percent. The HST rate in the Atlantic provinces, British Columbia and Ontario, on the other hand, is levied jointly with the federal GST, while revenues are allocated to the provinces on the basis of consumption statistics.

[27] The VATs of the EU member states have been harmonized under the Sixth Directive on Value Added Tax agreed to by the Council of the European Economic Community in 1977. For an updated and consolidated version, see Council Directive (2006).

percent.[28] In principle, all services are taxed. Exemptions are limited to services provided in the public interest (health care, education, social services) and services that are too difficult to tax for administrative reasons (tenant-paid rents and imputed rents of owner-occupied housing, insurance and banking). Food products are also taxed, often at lower-than-standard rates (exceptions are the UK and Ireland, which tax food purchased for home consumption at a zero rate). The tax-credit invoice system comprehensively eliminates the tax on producer goods. As indicated in table 2.1, VAT rates in the EU are higher than RST rates in the U.S. In conjunction with the much broader base, this means that VAT collections in the EU, as a percentage of GDP, are on average more than three-and-a-half times higher than RST collections in the U.S.

The base of the Japanese VAT is also similar to that of the EU VAT, but the rate of 5 percent is much lower. A noteworthy feature is the treatment of small businesses. An exemption of ¥10 million excludes most potentially VAT-liable business firms from tax coverage. To prevent cumulative effects from occurring when these exempt firms (not being able to claim a credit for the VAT on their taxable inputs) sell their output to registered firms, the latter are permitted to compute their input tax credits on the basis of presumptively tax-inclusive prices.[29] As a result of this arrangement more tax than actually has been paid is refunded at the point of export and more tax than is actually paid with respect to similar domestically produced goods is imposed on imports, possibly in violation of the WTO treaty.[30]

2.2.2 Considerations affecting the choice between VAT and RST

Experience indicates that most countries, when faced with the choice, have favoured a VAT over an RST, taking the view that in practice a VAT would be more broadly based than an RST, better equipped to free producer goods of tax and to apply correct BTAs, and easier to enforce. This can be illustrated by the experience in the EU, Norway, Canada, New Zealand, and Australia.

In the 1960s, the then member states of the EU opted for a VAT because, unlike the cascade type of turnover tax levied previously, a VAT permits the precise and unambiguous computation of export rebates and compensating import taxes (Cnossen and Shoup, 1987).

[28] For the U.S. states, see Mikesell (2005 and 2008). Mikesell takes actual sales tax collections from the Census Bureau (with a few adjustments) and based on the statutory rate for each state, he develops an implicit tax base that he then compares to total personal income in the state. In each of the two fiscal years cited above, the mean implicit base is equal to about 44 percent of total personal income. In addition, personal consumption expenditures generally run about 83-84 percent of personal income, meaning that the implicit sales base averages about 36.5 percent of personal consumption expenditures (.44 x .83). This includes tax on business inputs in computing the implicit sales tax base. About 40 percent of sales taxes are collected from businesses or business inputs. If those revenues are accounted for, the implicit sales tax base would equal to about 22 percent (.365 x .60) of personal consumption expenditures. For the EU, see Cnossen (2002).

[29] Letter from Hiromitsu Ishi (May 2010) (on file with the author). This approach, which effectively exempts the value added by non-registered firms, contrasts sharply with that of the usual VAT that increases the tax burden on non-registered firms selling their output to registered firms, inducing them to register and pay VAT.

[30] See Agreement on Subsidies and Countervailing Measures, April 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, Legal instruments – Results of the Uruguay Round, vol. 1, available at http://www.wto.org/english/docs_e/legal_e/24-scm.pdf

Correct BTAs are considered to be an indispensable feature of any tax on goods and services that enter intra-EU trade. Subsequently, therefore, the adoption of a VAT became a condition for EU membership. Although an RST was considered by the Neumark Committee (1963) appointed to study the most appropriate consumption tax, it was rejected (p. 124) “on practical technical grounds … (given particularly the large number of small retailers of whom the majority are unable to maintain precise bookkeeping).”

Denmark and Sweden switched from RST to VAT even before they became member of the EU (Shoup, 1969) and Iceland, Norway and Switzerland (Due, 1997), all non-EU European countries, have also done so. These countries cited foreign trade considerations as the main reason for the switch. The prices of both exports and import-competing goods included an RST on certain producer goods and other business purchases. This implied that the equal-rate compensating import tax and the export rebate were insufficient to fully offset the burden of the RST on domestic products. More generally, a VAT's ability to tax goods and services more broadly and neutrally than an RST, and an expectation that a shift to a VAT would result in increased revenues – ostensibly, in many cases, as part of a general shift in emphasis from direct to indirect taxes – were cited in support of the switch.

Norway is the only country in which the debate on the relative merits of a VAT vs. an RST continued long after the VAT was introduced in 1970 (Due and Brems, 1986). As reported by John Due and Ulla Brems, opponents of the VAT claimed that it was more costly for business firms and the tax administration than the RST had been. The majority of a government-appointed committee that reported in 1975 supported their views. The committee also believed that the opportunity for fraud was somewhat greater under a VAT. Accordingly, it recommended that the government revert to an RST. Subsequently, the Norwegian Treasury (1985) was instructed to review the issues. Reporting in the mid-1980s, it concluded in favour of a VAT, pointing out that the exclusion of producer goods was more comprehensive under a VAT; that a large part of the tax was collected upstream from large firms with well-organized accounting systems, whereas under an RST much of the tax would have to be collected from small retailers; that VAT had a beneficial effect on accounting standards, with spillover benefits for the income tax and the property tax; that the number of businesses that had to be registered under a VAT was not significantly larger than the number that had been registered under an RST; that the transitional costs of a return to RST would be high; and, finally, that the claim that a VAT was more costly to administer and to comply with than an RST was ill-founded. This settled the controversy in favour of a VAT, which was maintained.

Initially, the Government of Canada did not take an explicit position on the relative merits of a national RST vs. a national VAT. In June 1987, it put up for discussion the alternative of an integrated RST combining the existing provincial RSTs with a new federal RST or a separate national VAT without any link with the provincial RSTs.[31] Despite extensive negotiations with the provinces, the integrated RST proved to be beyond reach. It was simply not possible to reform nine different RST regimes and consolidate them into one unified system. Perhaps this was not surprising, because as the Minister of Finance opined: "this had never been accomplished before anywhere in the world." In April 1991, therefore, the Government went ahead with the introduction of a federal VAT.

The choice between an RST and a VAT has also been debated in New Zealand and Australia. The Government of New Zealand, which introduced a VAT in 1986, took the view that a VAT would be more effective than an RST in ensuring compliance, owing to its multistage collection feature, its inclusion of imports in the tax base, and the more complete audit trail that the tax provided (New Zealand, 1985). Retailers, the least reliable participants in the collection process, would not be accountable for the full amount of the tax. Moreover, as in the EU, small taxpayers could be excluded by reference to their turnover, yet they would still pay tax on their inputs (being exempt, they would not be entitled to take credit for the tax on purchases). This arrangement would minimize administrative and compliance costs. The Government also concluded that, given a comprehensive tax base and a single rate, a VAT would be a more flexible revenue instrument than an RST.

In Australia, the RST vs. VAT debate waxed and waned for more than 20 years. The Asprey Committee (1975) which was, perhaps, influenced by the recent introduction of a VAT in the UK, favoured a VAT over an RST, arguing that an RST was more susceptible to evasion. In contrast, the subsequent Australian Government Draft White Paper (1985) argued that an RST had significant administrative and compliance advantages relative to a VAT. The Government believed that the self-policing properties of a VAT (that is, the ability to cross-check invoices) had been overstated. While it accepted the argument that producer goods and exports could be more readily freed from tax under a VAT than under an RST, the longer lead-in time of a VAT persuaded it that RST was the right choice. Subsequent governments, however, leaned towards a VAT which, finally, emerged as the consumption tax of choice in 1998, largely on the basis of the same arguments as used earlier in New Zealand (Howard Government's Plan, 1998).

2.2.3 Conclusions

This review shows a clear preference of a VAT over an RST. A VAT is the first consumption tax that has successfully integrated the taxation of goods with the taxation of services (Kay and Davis, 1990). A VAT is also better able to exclude business inputs, including dual-use goods and services, from the tax base, and thus to effect more even and complete BTAs. Beyond this,

[31] This left open the question whether the direct subtraction method (taxation of the difference between sales and purchases) or the indirect subtraction method (credit for tax on purchases against tax on sales) should be used. The study group appointed by the Minister of Finance initially favoured the direct subtraction method (called business transfer tax, or BTT) which, because of its resemblance to a business income tax, would minimize overlap and conflict with the provinces (with their RSTs).

a VAT is a more robust tax by requiring (large) pre-retail firms to collect the bulk of the tax from retailers, administratively the weakest link in the tax-collection chain.[32] The pre-taxation of business inputs, moreover, implies that a VAT can afford a much larger small-business exemption than an RST for the same amount of revenue foregone, which lessens collection and compliance costs.

Prima facie, the main advantage of an RST is that it is inherently destination-based. An RST does not appear to require the explicit BTAs necessary under a VAT, that is, refunds of prior-stage tax upon export and the imposition of an equal-rate tax upon import. In actual fact, the widespread taxation of business purchases means that RSTs contain a significant origin-based component. Moreover, it would not be simple or practical to apply BTAs that would accurately reflect the RST hidden in the prices of domestic products. Furthermore, the ease with which goods and services can be bought out of state increasingly calls the presumed advantage of "no BTAs" into question. VATs score higher on this point, at least with respect to business-to-business (B2B) transactions. It may be that state VATs in the U.S. would be more neutral and robust tax instruments than current RSTs are. In this respect, the European experience and debates about VAT coordination may be instructive for U.S. policymakers.

2.3 VAT coordination in the European Union

In discussing the arrangements for BTAs in the EU, this paper makes a distinction between goods and services.[33] Prima facie, arrangements for BTAs on goods cannot deal effectively with (non-tangible) services whose location of supply or purchase is difficult to ascertain.

2.3.1 Cross-border transactions in goods

From 1993 onward, physical controls for the VAT on goods at interstate borders in the EU have been replaced by accounting controls at the first in-state stage of the production-distribution process. The VAT does not have to be paid upfront at the border.[34] Deferred payment had proven its feasibility in the Benelux. Its members (Belgium, the Netherlands, and Luxembourg) successfully applied the system to most of their interstate and international trade ever since they

[32] Presumably, the rationale of this arrangement is that taxable retailers are less likely to default on tax invoiced by their suppliers than on tax payable directly to the tax authorities as is the case under an RST.

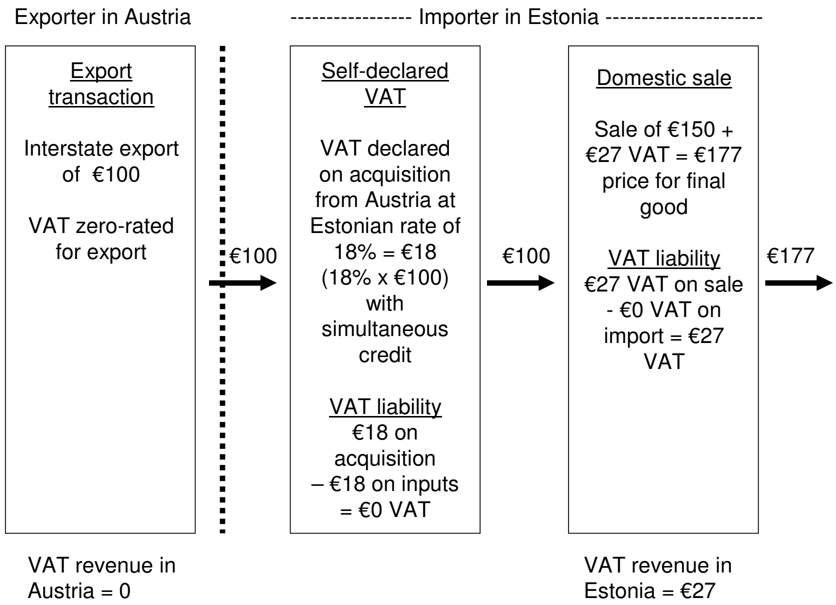
[33] In EU VAT legislation (Article 24 of the 2006 VAT Directive), "supply of services" is defined simply as any transaction which does not constitute a supply of goods.

[34] Although correct if looked at from the border-VAT point of view, deferred payment is a misnomer when viewed in the domestic context, because it treats imported goods exactly on par with domestic goods, that is, the right to a tax credit arises at the same time that the VAT on supplies is accounted for – and this is as it should be.

introduced the VAT in the late 1960s and early 1970s.[35]

Deferred payment places the charge to VAT on the acquisition of imported goods rather than on the physical import itself. The charge is reversed, as it were, by making the importer/buyer liable to tax, rather than the exporter/supplier. Registered firms of taxable imported goods have to include these goods (intra-community acquisitions are deemed to be a separate chargeable event) in the return due for the period in which the goods are imported. The VAT is self-assessed and a credit is provided at the same time. Accordingly, no net VAT is due and payable (unless the acquisition is made by an exempt firm). This situation is depicted in figure 2.1.

Figure 2.1 EU: VAT Treatment of Interstate Transactions in Goods



For compliance purposes, the "self-declared VAT" replaces the previous "border VAT," but no net VAT is due on the self-declaration; no "advance payment" is made. The two separate taxable events, that is, the acquisition and the domestic sale of goods, performed by one taxable person, may require only one return if the events take place in the same tax period. In either case, the full VAT is payable to the government (and receivable from the customer) when the importer sells the imported goods to the next stage of production or distribution. At that time the net VAT liability is €27 since there is no credit for the import VAT, which has already been permitted under the self-declared VAT or not yet if the acquisition occurs in the same tax return period.

[35] As early as 1982, the European Commission proposed the EU-wide introduction of deferred payment (Draft Fourteenth VAT Directive), although border controls were to remain in place. In fact, importers of VAT-liable goods still had to hand over VAT documentation to customs authorities at the point of importation without actually being assessed for VAT at that point. Prior to 1993, deferred payment –called postponed accounting in the UK and Ireland – involved a one-time loss of revenue in the year of introduction, just like the withdrawal of deferred payment involved a one-time (perhaps politically opportune) revenue gain.

At the time the deferred payment system – called the transitional regime in abeyance of some definitive regime, discussed below – was introduced, customs controls for goods were replaced by a functionally equivalent, if perhaps less certain, VAT information exchange system (VIES).[36] VIES requires registered firms to report their intra-EU supplies (exports) to registered firms in other member states (indicating their VAT identification numbers preceded by a country code) on a monthly basis to the VAT authorities if the supplies exceed €100.000 in any of the previous four quarters (or quarterly if supplies are less than €100.000 (Council Directive, 2008). Similarly, the purchaser has to report the total of his intra-community acquisitions (these obligations are called the listing requirement). The information is fed into a central data bank and should enable the various VAT administrations in the EU to match total intra-community acquisitions per trader against individually reported supplies. VIES imposes differentially higher compliance costs on interstate traders – a source of discrimination and trade distortion.[37]

Obviously, the removal of physical border controls made cross-border shopping by consumers more attractive. Although this was considered a price worth paying for the psychological benefit of a border-free EU, the member states agreed to make exceptions for the following three main items:

- Means of transport, such as motor vehicles, boats and airplanes, not bought through registered dealers, are taxed in the member state of registration, which is usually the same as the state of destination.
- Mail order firms with intra-community exports of more than €100.000 per member state per annum have to charge and remit the VAT of the destination state. Below that amount, firms have a choice between an origin and a destination basis of taxation.
- Exempt entities are subject to the VAT of the destination state if their cross-border purchases exceed €10.000. Purchases by exempt entities in excess of €10.000 are zero rated in the member state of origin and taxed as self-supplies in the destination state.

2.3.2 Cross-border transactions in services[38]

The deferred payment system for goods introduced after 1993 had always been applicable to business-to-business (B2B) services.[39] Article 43 of Council Directive (2006) prescribes that services should in principle be taxed in the state where they are performed. Highly significant

[36] See Council Regulation (1992) replaced by Council Regulation (2003). Furthermore, a statistical data collection system, referred to as the Intrastat system, was set up to collect trade data on goods between member states (Council Regulation, 1991) replaced by Council Regulation (2004), which extended the regulation's coverage to services. Some time ago, the Intrastat obligations have been simplified. See European Parliament (2004).

[37] See Verwaal and Cnossen (2002). The authors point out that most of the differential costs should be attributed to Intrastat obligations (see footnote above), not to compliance with VAT obligations.

[38] For reviews of the situation in the EU, see Terra (2007), and for a general treatment, Millar (2007).

[39] Sinn (1990) predicted a wave of cross-border purchases of consumer goods after 1993, even though this "wave" was already a non-issue for services prior to 1993. In fact, the treatment of border-crossing services, before and after 1993, indicates that the implications of the break in the VAT chain for goods when border controls were abolished were not unfamiliar phenomena.

exceptions, however, are made for services rendered by banks, insurance companies, professional firms, advertising agencies, and various other establishments – nearly all involving B2B transactions. Upon export, these services are zero-rated ("exempt," in EU jargon, with the right to a credit for the VAT in respect of any inputs used in performing the services). In the importing state, furthermore, the services are treated as if they are inputs supplied by the importing firm itself (Article 21) and taxable as such via reverse charging. In 2008 (effective 2010), the VIES reporting obligations for goods were extended to services (Council Directive, 2008a).

To put the cross-border treatment of services fully on par with the treatment of goods, new rules for the place where services are deemed to be rendered have recently been promulgated with the primary goal of taxing services as much as possible at the place of consumption or use (Council Directive, 2008). Basically, the exceptions have become the main rule: B2B services are deemed to be provided where the customer carries on his business.[40] As is the case with goods, the VAT identification number will play a crucial role in verifying compliance. Also, the correct determination of the place of establishment of the user of B2B services (and the place of the provider of business-to-consumer (B2C) services) will become more important.

As shown in table 2.2, overriding exceptions are provided for immovable property, cultural services and education, restaurants and catering, transportation of persons, and short-term rentals of vehicles – all of which are deemed to be provided where the services are actually performed. The new main rule should reduce compliance costs, because out-of-state taxpayers will no longer have to file refund claims for VAT currently charged with respect to out-of-state services provided to them. Compliance costs, on the other hand, will increase through the listing requirement for cross-border services.

The main rule for B2C services is that they are deemed to be provided at the place where the provider of the services carries on his business (including a permanent establishment). This resembles the VAT treatment of cross-border consumer purchases of goods which are taxed, with minor exceptions, on an origin basis. Again, various overriding exceptions are provided (see table 2.2). To limit administrative costs, furthermore, a mini one-stop-shop arrangement will be provided for telecommunication, radio, and television services (effective 2015) (Council Directive, 2008).[41] In the event, the provider of the services does not know the individual user or consumer. Accordingly, the tax on these services will be payable in the state where the

[40] Services that hitherto were taxable in the state of the provider, but will now be taxable in the state of the customer include management services, arbitrage services, merchant and investment banking, rating and recruiting services, as well as intermediation services, intra-community transportation of goods, and services provided to movable property.

[41] The later effective date for this provision represents a side payment to Luxembourg, whose origin-based low VAT rate has attracted many telecommunication, radio, and television providers. Furthermore, Luxembourg will be able to skim off a declining percentage of the VAT it collects on these services destined for other member states.

services are provided. Subsequently, that state will distribute the VAT revenue to the member states where the customers are located according to an agreed formula.

Table 2.2 EU VAT: Exceptions to main rules for place of services from 2010

Type of service	Place where performed
A. Business-to-Business services (B2B)	
Main rule	Place of purchaser
Exceptions	
Immovable property, including real estate agents and holiday accommodation	Where immovable property is situated
Cultural services, education	Where activities actually take place
- admissions to cultural services	-where activities actually performed (2011)
Restaurants, catering	Where services actually performed
-catering on ships, planes, trains	-place of departure
Transportation of persons	Place proportionate to distance
Short-term vehicle rentals (30 days or less)	Place where vehicle provided
B. Business-to-Consumer services (B2C)	
Main rule	Place of purchaser
Exceptions	
Immovable property, including real estate agents and holiday accommodation	Where immovable property is situated
Cultural services, education	Where activities actually take place
Restaurants, catering	Where services actually performed
-catering on ships, planes, trains	-place of departure
Transportation of goods and persons	Place proportionate to distance
-loading and unloading	-where actually performed
Rental of vehicles	
-short-term (30 days or less)	Place where provided
-long term	Place of customer
Rentals of pleasure boats	Place where provided (2013)
Independent agents	Place of underlying transactions
Telecommunications, radio an TV services	Place of customer (2015)
Electronic services	Place of customer (2015)

Source: Council Directive (2008).

2.3.3 Conclusion

After 1993, conventional intra-EU customs controls for VAT on goods were replaced by accounting controls, which applied already to B2B services. The previous controls served as an effective backstop for country-specific VAT verification and enforcement. In lieu of these controls, VIES was introduced which should enable member states to cross-check intra-community acquisitions against supplies and vice versa. Whether this information and verification system works should be reflected in the extent of VAT evasion attributable to the new arrangements to which I now turn.

2.4 VAT evasion in the European Union

As a transactions-based but accounts-controlled tax, a VAT should be at least as susceptible to fraud as other accounts-controlled taxes, such as the income taxes.[42] This section discusses various forms of VAT fraud, especially cross-border fraud, that is, claiming false refunds on exports or not remitting VAT on imports.[43]

2.4.1 Forms of VAT evasion

VAT fraud comes in various guises, but the following main types can be distinguished, listed in their most likely order of importance.[44]

- *Shadow economy fraud*. Genuine individuals and businesses with a turnover above the registration threshold deliberately do not register for the VAT. In many member states, this phenomenon comprises a large number of individuals who render all kinds of services "VAT-free," often by using or buying taxable inputs from their own or employer's business. Examples of VAT-free services are plumbing, carpeting, painting, gardening, catering, hairdressing, car repairs, and various other services (sometimes rendered on a barter basis).
- *Suppression fraud*. Genuine businesses that understate their sales or falsely inflate their claims for VAT on purchases,[45] including individuals who "consume through the business", that is, withdraw goods and services from their own or their employer's business for personal consumption without being charged for them, while the business takes credit for the VAT on inputs.
- *Insolvency fraud*. Genuine businesses (operating in the domestic market only) purchase taxable goods, which they sell on (often at inflated prices), providing high tax credits to (related) purchasers, and subsequently go insolvent without paying their VAT liabilities.
- *Carousel fraud*. Also called Missing Trader Intra-community (MITC) fraud in which fraudsters register for VAT, buy goods VAT-free from another member state, sell them on at VAT-inclusive prices and then disappear without paying the VAT due.[46] Unless the context implies otherwise, in this paper, carousel fraud also encompasses other kinds of cross-border VAT fraud.

[42] The widely recognized availability of refunds under VAT – something that income taxes generally do not allow – may make the VAT more vulnerable to fraud than the income tax. The VAT base, that is, business transactions, on the other hand, is much more obvious than the income tax base, which should make fraud less likely

[43] For reviews of VAT fraud, see Harrison and Krelove (2005), and Keen and Smith (2006). For an interesting comparison of VAT and income tax fraud based on the Danish experience of cross-border shopping and income shifting, see Gordon and Nielsen (1997). This study suggests that Denmark, which has a high uniform VAT rate of 25 percent, could reduce the real costs of evasion activity by relying even more on VAT.

[44] This draws on the distinction made by UK National Audit Office (2004).

[45] According to UK National Audit Office (2004), around a third of traders in the UK under-declare their VAT liability for a variety of reasons

[46] For a useful, simple example of carousel fraud, see Keen and Smith (2006). According to the European Commission (2004) at least 40 sectors have been identified as subject to MTIC fraud.

- *Bogus traders*. Fraudsters register for VAT, make false claims for repayments (paid out by the VAT office!) and then abscond.

2.4.2 Scale of the problem

Attempts to estimate VAT fraud can be distinguished in top-down or national accounts approaches and bottom-up or operational and intelligence analyses. Under the top-down approach, the full-compliance VAT is calculated from national accounts data on taxable consumption and intermediate inputs of exempt sectors, corrected for VAT revenue foregone on account of the small-business exemption.[47] This full-compliance VAT is then compared with actual collections and the difference, expressed as a percentage of full-compliance collections, is called the VAT gap. Operational or intelligence analyses, on the other hand, project country-wide VAT evasion from the results of individual or sector-wide investigations.

Based on old data, averaged for the period 1994-1996, Andrea Gebauer, Chang Woon Nam and Rüdiger Parsche (2005) have calculated the top-down VAT gaps for 10 EU member states. The VAT gap of 2.4 percent in the Netherlands, a small and open economy, is surprisingly small.[48] In Italy, on the other hand, the gap is more than one-third of potential collections.[49] Not surprisingly perhaps, the size of the VAT gap is roughly correlated with the size of the shadow economy. VAT fraud for the whole EU is estimated at €6 billion to €100 billion.[50]

Gebauer, Nam and Parsche (2005) pay special attention to the situation in Germany. They report a rapid growth in VAT evasion in the three years since the abolition of border controls, culminating in an annual evasion rate ranging from 6-8 percent in 1996, which increased further to nearly 10 percent in 2001. In the latter year, approximately one-third of the estimated evaded VAT could be attributed to "the fast expansion of the so-called (tax avoiding) daisy-chain businesses (Karusellgeschäfte)" (Dziadkowski et al, 2002). It is not clear, however, how this figure is arrived at or the breakdown of the remaining amount of evasion.

Subsequently, Rüdiger Parsche provided figures to the European Parliament on VAT evasion in Germany.[51] Updated figures are shown in table 2.3 along with similar data reported for the UK. It should be noted that the data are only broadly comparable and that the VAT revenue loss

[47] The national accounts data include corrections for the shadow economy, calculated using the currency-demand approach discussed in Schneider and Ernste (2000). The demand-currency approach postulates that countries with a high ratio of currency to GDP have a larger shadow economy and a lower tax compliance ratio than countries with a lower currency-GDP ratio. For an analysis that relates the level of the VAT rate to the extent of evasion and avoidance, see Matthews (2003).

[48] UK National Audit Office (2004) reports that the Netherlands set up a carousel fraud unit in 1998, which adopted a strategy of focusing primarily on identifying those firms which were committing the fraud. Reportedly, one of their main sources of information is the VIES data.

[49] For an analysis of VAT evasion in Greece (not included in the study), estimated at 25 percent of VAT revenue, see Agapitos (1999).

[50] International VAT Association (2007). See also speech by Láslό Kovács (2006).

[51] Letter from Rüdiger Parsche to the author, July 17, 2008 (on file with the author), with tables on the quantification of the VAT gap for the years 2005-2008 and specification of the evasion shortfall.

through insolvencies may only be partially related to VAT evasion, although evading VAT by going broke (after charging VAT to customers), practiced long before 1993 (sic!), is the typical domestic variant of intra-community carousel fraud. Table 2.3 clearly indicates that shadow economy and suppression tax fraud – in other words, "domestic fraud" – account for the lion's share of VAT fraud. By contrast, carousel fraud makes up 10 percent of total fraud in Germany and 25 percent in the UK.

Table 2.3 Germany and United Kingdom: Estimates of VAT fraud and evasion in 2001-2002

Type of non-compliance	Revenue loss as percent of full-compliance VAT	
	Germany	UK
Shadow economy, including consumption through the business and non-registration	5.5	5.3
Suppression and insolvency fraud	2.3	3.3
Abuse of tax credits	2.1	-
Carousel fraud	1.1	3.2
Non-registration	-	0.6
Total revenue loss	11.1	12.4

Sources: Germany – figures provided to the author by Rüdiger Parsche, which he had presented to the European Parliament in early 2008 (correspondence on file with the author). UK – author's computations based on UK National Audit Office (2004, p. 11).

In its latest publication, UK Revenue and Customs (2007) estimates the VAT gap at 14.2 percent in 2006-2007, down from 16.1 percent in 2002-2003. Using operational data (which are not revealed as this may have a detrimental effect on compliance activity), the loss from MTIC VAT fraud – of which carousel fraud is the most serious form – is estimated at £1-2 billion, or 12 percent of the total net VAT revenue loss for 2006-2007. This is less than the revenue loss associated with the illicit market in cigarettes and hand rolling tobacco, which is estimated at £1.6-3.2 billion in 2005-2006. Again, MTIC VAT-fraud in the UK, as well as Germany, although serious, is only a fraction of the total VAT fraud committed in either country.

2.4.3 Measures to combat fraud

Member states have taken various legal measures to combat VAT fraud (including carousel fraud), among others by refusing the right to a tax credit on the ground that the transaction is devoid of economic substance (abuse of rights doctrine). In Optigen (2006), the European Court of Justice (ECJ)[52] ruled that the doctrine could not be applied to taxpayers acting in good faith, but in Kittel (2006)[53] and Halifax (2006) it held that, subject to certain conditions, mala fide taxpayers could be denied the right to tax credit. The ECJ (Commissioners of Customs and Excise, 2006) also confirmed the validity of measures requiring specified traders to provide

[52] For a useful review of the ECJ cases and other measures to combat fraud, see Balcerowicz (2007).

[53] In Kittel, the ECJ opined that "…where it ascertained, having regard to objective factors, that the supply is to a taxable person who knew or should have known that, by his purchase, he was participating in a transaction connected with fraudulent evasion of value-added tax, it is for the national court to refuse that taxable person's entitlement to the right to deduct."

financial security, for example, for charging VAT which results in a credit, although it stipulated that security for a VAT liability due from another taxpayer can not be required. Furthermore, various member states have introduced joint and several VAT liability rules under Article 205 of the VAT Directive if, at the time of the transaction, taxpayers knew or had reasonable ground to suspect that some or all of the VAT payable in respect of the supply would go unpaid. According to the European Commission (2004b), this measure “has had a clear deterrent effect and seems to be effective.”

At the EU level, VIES-II has been launched, which will improve the reliability, scope, and speed of information exchange regarding intra-EU transactions subject to VAT.[54] In addition, under the new system of administrative cooperation, Central Liaison Offices have been set up in the member states to facilitate information exchange, among others, on irregular (carousel) transactions.[55] Importantly, member states can second their auditors to investigation units in other member states. The European Commission has also issued a helpful risk management guide for tax administrations, which was prepared by tax officials from the member states as part of the Fiscalis Risk Analysis Project (European Commission, 2006).

Apparently, member states do not make sufficient use of the available legal and administrative arrangements. While the European Commission (2006b) opines that “the Community legal framework in the field of administrative cooperation on VAT…appears to be satisfactory…[and] offers real possibilities for cooperation between Member States,” the latter do not make sufficient use of the instruments due to language problems and lack of specialized resources. Perhaps more can be done to provide the right kind of training and financial incentives for participating staff.

2.4.4 Conclusion

In reviewing the figures on VAT fraud and evasion, one must concur with Keen and Smith’s (2006, p. 872) lament that “there is strikingly little hard evidence – publicly available, at least – on the extent of non-compliance (including outright fraud) under the VAT” in the EU. What seems clear, however, is that shadow economy and suppression fraud are much more important than carousel fraud, which gets so much attention. No doubt, the reason is that shadow economy and suppression fraud generally involve a large number of low-profile cases involving small amounts of VAT. By contrast, insolvency and carousel fraud, although occurring much less frequently, often involve large amounts of VAT, which catch the limelight and appeal to the imagination.

[54] For more information regarding VIES II, visit the website of the European Commission, Taxation and Customs Union. For a useful description of the purposes, legal mechanisms, workings and rules governing international information exchange, see Perez-Navarro (undated).

[55] This is facilitated through Eurocanet, a program of mutual assistance between member states’ fiscal and law enforcement authorities. Also, see UK House of Lords (2007).

Keen and Smith (2006, p. 884) refer to current arrangements as "ad hoc enforcement strategies," rejecting them in favour of their deep solution, which would "fix the VAT chain by ending the zero-rating of trade between member states." In their view and that of the Commission, intra-community supplies should be taxed (called exporter rating) rather than zero-rated, while the recipients of these supplies in importing states should be permitted a tax credit for an equivalent amount. To restore the revenue allocation under the destination principle, the exporting state should be obliged to pay the VAT collected on exports to importing states. These proposals are examined in the following section.

2.5 Exporter rating proposals

The exporter rating proposals can be usefully distinguished between those made by the European Commission and proposals found in the tax literature.

2.5.1 European Commission proposals

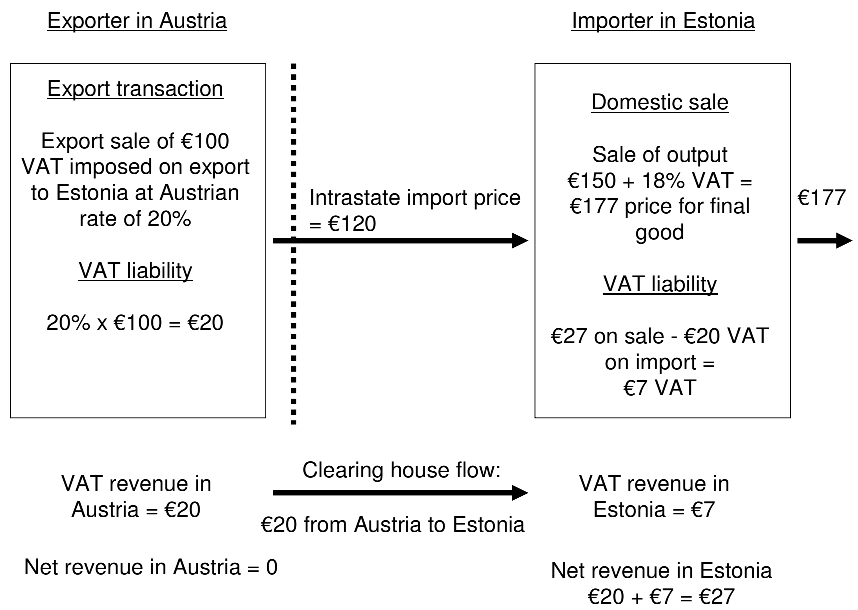
I first proposed exporter rating in 1983 (Cnossen, 1983), suggesting that export-VAT collections and import-VAT credits should be settled through an EU-wide clearinghouse system. In essence, only net balances (the excess of VAT collections on exports over VAT credits on imports) would have to be settled between member states. In 1985, the European Commission adopted the proposal in a paper known as the Cockfield White Paper (European Commission, 1985); it forms the organizing principle of subsequent exporter rating proposals.

The workings of exporter rating, involving the exportation of goods (or services) from Austria to Estonia, is illustrated in figure 2.2. The Austrian export sale is taxed at 20 percent and the corresponding VAT amount would be allowed as a tax credit to the importer in Estonia. If the importer sold the goods at €150 in the same tax period in which he imported it, he would pay a net VAT of €7. On the other hand, if he would keep the goods in stock (and did not make any taxable sales), he would receive a refund of €20, but would have to file a return. Furthermore, Austria would pay the VAT it collected from its exporter to Estonia, which would use it, as it were, to finance a tax credit for the same amount allowed to its importer. Importantly, VAT revenue allocation between the two countries is the same as under a system, such as deferred payment, which zero rates exports.

The Commission's arguments, however, failed to persuade the governments of the member states that wanted to retain full control over the VAT administration of imports and exports, and, therefore, opted for the deferred payment scheme that had proved its feasibility in Benelux, although they agreed that exporter rating should receive a second hearing. In the tax literature, moreover, Catherine Lee, Mark Pearson, and Stephen Smith (1980) criticized the Commission's clearinghouse proposal, pointing out that it had an adverse impact on enforcement incentives, because importing member states might not be inclined to root out fraudulent claims for import

VAT credits (after all, these presumably would be paid by exporting states), while exporting states would have little incentive to uncover fraudulent failure to charge VAT on exports. Solving this problem would require uncoupling the clearinghouse flows from taxes actually paid.

Figure 2.2 Exporter Rating



Subsequently, the European Commission (1996) made another attempt to persuade the member states of the benefits of exporter rating. Since intra-EU exports are zero rated under deferred payment, the Commission noted that more than €700 billion worth of goods circulated VAT-free in the internal market, and observed that due to the break in the VAT-collection chain "some of that amount may well be diverted to the black economy" (European Commission, 1996, p. 4).[56] The Commission placed its proposal against the backdrop of a principled critique of the 1977 VAT Sixth Directive.[57]

The fresh proposal had the following main elements. Goods and services were to be taxed at the place of business establishment of the seller instead of the location of the transaction. This implied a single place of taxation for each business (instead of two, as under the deferred payment regime), even if operating throughout the EU; hence, the reference to home-state taxation. Furthermore, zero rating of intra-EU transactions would be abolished. Instead, cross-

[56] In light of the fact that the time period in which VAT has to be accounted for and remitted to the authorities is generally the same as the time period in which VAT is received from purchasers, all goods and services, not just intra-community traded products, circulate VAT free within the ring of registered firms.

[57] It pointed out that the VATs in the EU were unnecessarily complex (as shown by differences in the place of supply rules, the special schemes and the rules applicable to non-residents), while VAT enforcement relied too much on physical controls. Also, there were wide differences in the application of the common VAT between member states, such as special arrangements, options, temporary or transitional derogations, which had not been repealed, shortcomings in transpositions or differences in the interpretation of common provisions. This verdict applies to this day.

border sales would be taxed in the same fashion as domestic sales and cross-border movement of goods within the same business would go untaxed. As a collorary, importers would be able to credit the VAT on purchases from other member states against their own VAT liability. VAT revenues on intra-community transactions would be allocated between member states on the basis of statistics of aggregate consumption (instead of the aggregation of VAT on individual export and import transactions, as under the initial proposal). The Commission also proposed complete uniformity in the scope and definition of the VAT, and very close convergence of rates.

In a trenchant commentary, Stephen Smith (1997) pointed out that the new proposal would put substantial limitations on member states autonomy to set rates, require an extensive program of legislative harmonization, cause difficulties in identifying firms entitled to be taxed in a single member state, and a flight of businesses to least-taxed locations or, if rates were the same, to states where VAT evasion would be less tightly controlled. Also, revenue allocation rules (on the basis of aggregate consumption) would undermine incentives to devote adequate resources to VAT collection and enforcement.

Again, the proposal did not leave the drawing board, but was briefly resurrected in 2004 as the one-stop shop proposal under which exporters would be able to discharge all their obligations with respect to border-crossing transactions at one place only, that is, their place of establishment.[58] Users would only have to register once through the system and would get a single VAT number. This time clearing would not be necessary because exporters would be required to remit the gross VAT collected by them and calculated at the destination-state rate directly to the state of final destination, an idea which had earlier been proposed by Frans Vanistendael (1995). Few details were provided.

2.5.2 Proposals in the tax literature

Basically three proposals for VAT coordination have been made in the tax literature. They go by the names of Viable integrated VAT (VIVAT), Compensating VAT (CVAT), and dual VAT (D-VAT).

Viable integrated VAT (VIVAT)

In the belief that the alleged break in the VAT collection chain threatens VAT's integrity, Michael Keen and Stephen Smith (1996) made an imaginative, high-profile proposal for a viable integrated VAT (VIVAT), which would consist of the following elements:

[58] Some details can be gleaned from European Commission (2004) and (2004a). The one-stop shop proposal may receive further scrutiny in the run up to the implementation by 2010 of the Services Directive (Council Directive, 2006a), which calls for "points of single contact" in each member state where traders can discharge all their obligations with respect to other member states. As noted above, a mini one-stop shop has been adopted under Council Directive (2008).

- An EU-wide uniform VAT rate, administered by member states, on all intermediate (non-retail) transactions between VAT registered traders, within and between member states. Accordingly, interstate exporters would be taxed and interstate importers would be allowed a credit at the same uniform rate.
- A clearing mechanism for payments from net exporting states to net importing states, based on export and import statistics (derived from VAT returns!) and allocated to member states on the basis of consumption statistics. This would ensure the maintenance of the destination principle, except for cross-border consumer purchases.
- A surtax on retail sales to consumers (in essence, an RST element, because it is imposed on retail sales only) for member states wishing to collect more revenue than accruing to them under the EU rate.
- Retention of the special schemes for distance sales and means of transport, but perhaps not for exempt entities since their inputs would be taxed at the uniform rate applicable to cross-border purchases.

Accordingly, sellers would have to separate sales into three categories: (a) sales to registered persons within the EU subject to the EU-rate, (b) sales to unregistered persons within the EU (in- as well as out-of-state) subject to the higher member state rate, and (c) sales for export outside the EU, subject to the zero rate.

Keen and Smith (1996), as well as Ian Crawford, Michael Keen, and Stephen Smith (2010) believe that a VIVAT would bolster the destination principle (and hence state autonomy, called subsidiarity in the EU), because revenue would continue to accrue where goods and services are consumed. The commonality of the EU rate would lessen the pressure on the clearing system and enforcement. Traders would be able to report exports and imports in aggregate rather than per member state. The uniform rate would remove the incentive for strategic rate setting, that is, the incentive member states would have under exporter rating with non-harmonised rates to tax exports higher because the VAT would be creditable anyway in importing states. The hassle of the clearing system could be resolved through a one-off deal, that is, a system of lump sum transfers between member states, obviating the need for future clearing.[59]

The VIVAT, however, would not be without problems. As I have argued (Cnossen, 2010), uniform exporter rating may *appear* to repair the break in the VAT-collection chain, but does nothing to solve the break in the VAT-audit trail. Importing member states would still not be able to audit importers' invoices (received from exporters in other member states) for which they have no authority. This would provide a powerful incentive to produce false import invoices, showing VAT eligible for credit instead of no VAT as under the current regime. In

[59] It is difficult to view this as an advantage of the VIVAT, since any attempt at strategic rate setting would be stopped in its tracks by the ECJ on the ground that it would be a gross violation of the non-discrimination principle.

fact, bogus export transactions, allegedly prevalent under the current regime, might be replaced by bogus import transactions.

Furthermore, under the VIVAT, member states with a greater than average preference for a VAT would have to impose an additional RST. In other words, they would have to incur higher administrative and compliance costs than currently and than member states making do with the revenue collected under the VIVAT rate. Registered traders, moreover, would have to make a distinction between sales made to other registered traders (taxable at the VIVAT rate) and sales made to non-registered persons, that is, individuals and exempt entities (taxed at the RST-inclusive rate) – "not a trivial burden," as Keen and Smith (1996, p. 406) admit. The RST element would have most of the drawbacks of a normal RST, noted in the literature (see above), although most tax would be fractionally collected throughout the production-distribution stage.

Beyond that, it is difficult to envisage a uniform VIVAT rate in light of the established preference for greater rate differentials shown by the member states. Currently, moreover, reduced rates are levied on a product-specific basis. Their application (with revenue consequences) to intermediate transactions (quite a different matter) would complicate VIVAT and open up other avenues for fraud, particularly if it is not possible to audit import invoices. Politically, the VIVAT would further entrench the (high) VAT rate agreement in the EU, making it more difficult to convert the differentiated rate structures into single uniform rates (advocated by Crawford, Keen and Smith, 2010!) or to reduce the VAT rates in individual member states at some future date.

Compensating VAT (CVAT)

A proposal to repair the break in the VAT audit trail has been made by Charles McLure (2000), based on Ricardo Versano's (1999) idea for coordinating the VATs of the Brazilian states. McLure aims his proposal, which he calls compensating VAT (CVAT) mainly at developing countries, but believes that it also has relevance for the EU. The proposal features the retention of state VATs, at differentiated rates, and the deferred payment system for interstate trade. Intra-EU trade (zero-rated under state VATs), however, would be subject to an export tax administered by a central agency, which would use the revenue to finance an equivalent tax rebate on imports. Accordingly, there would be no need for a tax-clearing mechanism, but the CVAT would require a uniform tax base and administration for the EU export/import tax as well as the state VATs.

Essentially, the CVAT solves the problem of fraudulent export and import invoices for the state VAT administrations (apparently for goods only, not for services!) by performing audits at the central level through a charge-and-refund system, but if these audits were introduced, there would seem to be no reason to adopt an additional no-revenue raising tax. In the event, it then would be better to have a less costly central audit agency to which cases can be referred on a selective basis.

As Keen and Smith (1999) have pointed out, the CVAT currently is not an option in the EU if there is to be a central administration. The same applies to the dual VAT (D-VAT) proposed by Bird and Gendron (1998) based on Canadian experience, which features separate provincial VATs under the umbrella of a federal VAT.

2.5.3 Further analysis by the European Commission

So far, the basic arguments in favour of exporter rating have been that it would repair the break in the VAT collection chain and treat intra-community exports on par with domestic transactions. A recent European Commission (2008) Staff Working Paper elaborates specifically on the use of exporter rating as an instrument to combat MTIC fraud. In the example used in the paper, intra-community exports would be taxed at a uniform rate of 15 percent, which would be creditable by the importer in the importing member state upon the presentation of an invoice (self-declarations would still be required for imports subject to a higher or a lower rate than 15 percent). Any excess of VAT collections over VAT credits would be settled through bilateral clearing mechanisms based on microeconomic data collected from exporters and importers, preferably on the basis of monthly recapitulative statements.

As the Working Paper acknowledges, the proposal would raise a number of political, economic and technical issues, which would require further discussion.

- Member states would become dependent on each other for some €30 billion of VAT revenue – on average, about 10 percent of total receipts. The Netherlands, Germany, Belgium, and Ireland would become large net contributors to the clearing system. They would have to pay over the VAT billed to them by importing member states, irrespective of whether or not they had been able to collect it, or knowing for sure whether or not the claim was correct. Accordingly, the level of mutual trust would have to be exceptionally high. This is not likely to come about, inter alia in view of the variation in the levels of VAT fraud discussed above.
- The collection of the VAT on intra-community exports would imply an advance payment of tax, which the Commission's staff estimates at €360 billion[60], similar to the earlier conventional system of VAT collection at internal borders. The interest charge on the pre-financed tax most likely would be passed on to consumers in the form of higher prices and would be particularly harmful to small businesses.

[60] The estimate is based on a total value of intra-community purchases of €2400 billion made by 2.5 million businesses across the EU, approximately 9 percent of all taxpayers. The "advance payment" would be much less (and, in my view, might not even exist) if exporters' VAT payment terms were the same as importers' commercial payment terms (and if the claim to a tax credit or refund in importing states would be effected at approximately the same time that importers have to pay the VAT charged by exporters).

- The 15 percent VAT on exports might induce traders to purchase lower-rated domestic commodities over higher-rated imports, and vice versa, even though the import VAT would be fully creditable and refundable, if required.
- Compliance and administrative costs would increase on account of the extra reporting and verification requirements necessitated by the microeconomic clearing system. Extra compliance costs would be imposed on exporters who would have to make a distinction between (a) domestic supplies taxable at the normal rate, (b) intra-community supplies taxable at 15 percent, and (c) exports to third countries taxable at the zero rate.
- Mismatches between supply and acquisition listings would arise on account of reporting failures as well as differences in the chargeability rules for the VAT. In theory, for the EU as a whole, acquisitions should match intra-community supplies. In sharp contrast, the excess of reported acquisitions over supplies was €80 billion in 2006. At a rate of 15 percent, the potential amount of VAT involved could be €12 billion.
- Exporter rating would provide an incentive to produce false import invoices (possibly through third countries) in order to qualify for a tax credit. Rate differences might still be exploited for fraudulent MTIC purposes, although on a smaller scale.

2.5.4 Evaluation of exporter rating proposals

Perhaps the time has come to lay the various exporter rating proposals in the EU to rest. It is hard to avoid the impression that early on the proposals were heavily predicated on the assumption that a solution had to be found for the VAT treatment of interstate trade in (physical) goods[61] – so central to the EU's 1992 programme – while the practice and experience before 1993 with deferred payment for the "importation" of (intangible) services (as well as for goods in Benelux) indicated that deferred payment was a viable alternative. Also, the early preference for some form of exporting rating may have reflected an undue focus on the break in the VAT collection chain.[62] It is not the break in the VAT-collection chain, however, that weakens the efficacy of the tax's fractional multistage collection mechanism, but the break in the VAT audit trail that proscribes the reach of each member state's VAT administration to its own jurisdiction.[63]

It is also hard to avoid the conclusion that the attention devoted to carousel fraud committed at interstate borders, so similar to insolvency fraud on the domestic scene, is out of proportion to the significance of the issue. Of course, carousel fraud should be tackled, and forcefully, but it is only one aspect of the VAT evasion picture, and apparently not the most important one. VAT

[61] See, for instance, Keen and Smith (1996, p. 393), who make their case for the VIVAT against the background of the abolition of "effective border controls."

[62] According to Keen and Smith (1996, p. 386), zero-rating exports breaks "the cumulation of revenues throughout the production process…crudely put, the government gets its hands on the money sooner rather than later." This view is incorrect, however: under VAT there is no cumulation of revenue and, in principle, the timing of tax payments does not differ from the timing under an RST. See Cnossen (1987).

[63] This problem would not occur in the U.S., of course, with a common tax administration in the form of the IRS.

revenue lost through carousel fraud appears to be dwarfed by shadow economy fraud, suppression fraud, and insolvency fraud. Like other kinds of fraud inherent to taxes based on voluntary compliance, VAT fraud should be detected through verification and audit, followed up, if indicated, by investigation and prosecution. System changes rarely cure the problem of tax evasion, but rather divert attention from compliance control issues.[64] Why impose additional obligations on honest traders while carousel fraud is being undertaken by a small number of sophisticated criminal gangs? (UK House of Lords, 2007).

In a trenchant commentary on VAT fraud and coordination issues in the EU, the International VAT Association (2007) concludes that comprehensive (non-targeted) exporter rating is fraught with political challenges. Instead, it argues for strengthening fiscal cooperation between member states, among others by improving VIES and establishing a multi-jurisdictional VAT enforcement unit. In its view, deferred payment, despite its flaws, has contributed effectively to the collection of a destination-based VAT.

The gist of this commentary is echoed in statements by the European Commission and in the tax literature. As the European Commission (2006a) opined "the solution to missing trader fraud can be found in increased VAT control based on risk analysis rather than in changing the basic tax rules..."[65] Furthermore, Gebauer, Nam, and Parsche (2005, p. 480) recommend "more accurate cross-border information exchange, accompanied by joint audits among countries..."[66] And earlier, Bird and Gendron (1998, p. 439) allowed for a virtual, functionally equivalent D-VAT in the form of "some closely coordinated overarching administrative structure which would, for example, facilitate and insure information exchanges, development of agreed audit plans, and so on," in order to give states the capacity to monitor cross-border transactions.

The message is loud and clear. Basically, exporter rating does not obviate the need for auditing domestic and cross-border transactions. Proper domestic and multi-jurisdictional audit, on the other hand, would obviate the need for costly design changes whose reporting requirements might be just as or more burdensome than the requirements under deferred payment. The legal and administrative-cooperation arrangements appear sufficient for the time being to tackle cross-border VAT evasion, while maintaining the explicit deferred payment system (supplemented by some targeted exporter rating rules). The problem is that member states

[64] As Harrison and Krelove (2006, p. 36) opine: "Experience strongly suggests that the VAT is feasible only as a self-assessed tax, meaning that substitutes for effective risk-based approaches within a self-assessment environment cannot be expected to provide sustainable solutions to compliance problems…".

[65] The previous Taxation and Internal Market Commissioner, Frits Bolkestein (2004), believed that "[f]raud can be combated effectively without making drastic changes to the VAT system as long as Member States continue both to co-operate with each other and to make improvements to their individual national control arrangements."

[66] In a later publication, Andrea Gebauer, Chang Woon Nam, and Rüdiger Parsche (2007) point out that "ït is not evident why the financial means required for the establishment of extensive control mechanisms in a new system could not also be used for the improvement of the present system."

should make better use of existing administrative cooperation arrangements and be more willing to assist other member states in their endeavour to catch VAT evaders.

Intensified cross-border audit would reduce the need for reliance on VIES. This form of information exchange (not practiced for domestic transactions or for international transactions under the corporation tax) resembles the universal cross-checking arrangements in China and Korea. Harrison and Krelove (2005, p. 27) report that the Korean experience showed that data capture was time-consuming, costly, and prone to error. Numerous mismatches were identified but most were the result of transcription errors, incomplete data, and valid timing differences, rather than due to fraudulent claims. Indeed, this finding is corroborated by the €80 billion mismatch in the EU as computed by the European Commission (2008). Not surprisingly, Harrison and Krelove (2005, p. 28) report that the Fiscal Affairs Department of the International Monetary Fund "remains of the view that large-scale cross-checking systems are a poor substitute for well-designed audit programs based on risk assessments, selective [emphasis added] cross-checking, intelligence gathering, and targeted fraud investigation."[67] This conclusion might also be true for VIES.

2.6 The German and Austrian proposal

2.6.1 Main features

Germany and Austria have argued that the opportunities for carousel fraud would be eliminated if the liability for VAT were shifted from suppliers to purchasers of taxable goods and services (European Commission, 2008). Reverse charging, comprehensively applied, would suspend the VAT liability throughout all pre-retail stages of production and distribution and, in effect, transform a VAT into an RST. The main difference with a conventional RST would be that the proposal envisages the retention (and intensification) of the cross-checking properties of a non-tax invoice-based "VAT."

On the basis of the proposals made in Germany, Gebauer, Nam and Parsche (2007, pp. 6-9) distinguish three forms of reverse charging, depending on, among others, whether or not a threshold is incorporated and whether or not cash transactions are included. All variants require the issue of a special VAT identification number, the online verification of the identification number of the purchaser, and the reporting of all transactions by identification number, which can then be cross-checked by the tax authorities. A prototype reverse charge system is shown in Figure 2.3 (without the complications of the threshold or the exemption of cash transactions).

[67] In a domestic context, Harrison and Krelove (2005, p. 28) point out that the execution of a well-designed audit program is the most critical element in a program to reduce the incidence of VAT fraud. In the context of an audit risk management approach, they recommend, among others, audit of accounting systems, however time-consuming, rather than individual transaction checking, especially with large taxpayers. Close coordination of the VAT audit program with audit programs of other taxes, particularly income tax, is also required. Most of these elements should also feature in cross-border programs.

Clearly, no registered VAT-company pays any tax, except *Company C*, selling to consumers or other non-registered entities.

Figure 2.3 Example of Reverse Charge System (VAT=19 percent)

COMPANY A
Sells goods to Company B for €100. No VAT is charged. Submits to VAT office Reverse Charge Sales List (RCSL) of customers to whom sales without VAT have been made.

COMPANY B
Reverse charges himself VAT on purchase price of €100, declaring €19 payable to VAT authorities on the VAT return. Reclaims input VAT of €19 on the same VAT return. No net VAT is due. Sells to Company C for €150. No VAT is charged. Submits RCSL to VAT office.

COMPANY C
Reverse charges itself VAT on purchase price of €150, declaring €28.50 payable to VAT authorities on the VAT return. Reclaims input VAT of €28.50 on the same VAT return. Sells to final consumer for €200 plus €38 VAT. Output VAT of €38 declared on VAT return and paid to VAT authorities.

VAT OFFICE
Rather than receiving a proportion of the VAT due at each point in the supply chain (fractional payment system), the VAT authorities receive the amount due of €38 in one sum from Company C, once the goods are sold to the final consumer.

Source: Adapted from UK House of Lords (2007).

Germany and Austria have asked the European Commission to evaluate their reverse charge proposals for transactions above €5.000 and €10.000, respectively (European Commission, 2006).[68] The normal charge and tax credit rules would continue to apply to smaller (cash) transactions and to transactions where the status of the purchaser can not be properly verified. Clearly, this would put a heavy burden on suppliers who would first have to verify that their customers are registered persons qualifying for application of the reverse charge, and, subsequently, whether the amount of the transaction is less than €5.000/€10.000 (in which case VAT would be charged and subsequently creditable) or more than €5.000/€10.000 (in which case the customer would account for VAT and be eligible for the tax credit).

2.6.2 Reverse charging vs. VAT

Apart from the proposed thresholds, the most important difference between the EU VAT and a comprehensive reverse charging system is the way in which the tax is collected by the tax authorities – in full from the retailer under reverse charging but fractionally throughout the production-distribution process under the VAT. The choice, therefore, largely involves administrative and technical considerations.

[68] In addition, the EU's ECOFIN Council has expressed the wish to explore the potential effects of an optional reverse-charge mechanism by means of a pilot project (Press Releases, 2007).

The European Commission (2008, pp. 22-23) believes that reverse charging would increase the incidence of fraud at the retail level, the abuse and hijacking of VAT identification numbers, the creation of fake invoices, the replication of MTIC patterns on the domestic scene, and black market activity. In addition, transactions would be artificially split to circumvent the threshold. Generally, the lower the amount of the threshold, the more the level of reverse-charge fraud would increase (the opposite applies to VAT credit fraud). The weight of tax compliance and enforcement would fall fully on the retail sector, generally the weakest link in the VAT collection chain. By contrast, according to a common rule of thumb, 80 percent of VAT is remitted by less than 20 percent of all taxable persons.

These observations are supported in the tax literature (Cnossen, 1987). In legal terms, the multistage collection feature of the VAT, in contrast to the single-stage collection feature of reverse charging, gives the tax authorities a lien, as it were, on suppliers for the tax payable by the retailer. Manufacturers and wholesalers have, in effect, been made tax collectors on behalf of the government – they remit part of the tax paid to them by retailers, namely that part that corresponds to their value added in the consumer product's price times the VAT rate. Presumably, the rationale of this arrangement is that taxable retailers are less likely to default on tax invoiced by their suppliers than on tax payable directly to the tax authorities as is the case under reverse charging.

Furthermore, the multistage collection feature under the VAT transfers part of the onus of proof regarding the tax liability to the taxpayer, whereas under reverse charging the onus rests fully with the tax authorities. A basic tax law rule, namely, is that for positive items – sales – the burden of proof lies with the tax office; it must prove that a business liable to tax has understated its sales. In this respect, reverse charging and VAT are similar. But for negative items, such as tax credits claimed under the VAT on the strength of purchase invoices, the onus probandi lies with the taxpayer, who must prove, to the satisfaction of the tax authorities, that he is entitled to the tax credits shown in his return because the goods and services purchased have been used in the course of the business.

Beyond this, under reverse charging, vendors have to verify the status of buyers purchasing for resale or business use, in contrast to the VAT where the rule is that tax should always be charged. Accordingly, buyers can pretend to be registered firms and present fake identification numbers, asking the seller to send the goods to another address than shown on the online verification site. Because cheating a vendor, without doing him economic harm, presumably is less difficult than cheating the government, reverse charging places a lower price on dishonesty than the VAT.

The question of whether or not tax should be charged is particularly problematic with dual-use goods and services (usable for business as well as personal purposes). Purchase by a legitimate business would subsequently require that the VAT should be self-assessed if the goods or services are used for personal purposes. Similar problems arise with consumption "through the business." A VAT denies the tax credit for purchases of food products, beverages, employee fringe benefits, and personnel transportation, even if made for business purposes, say, to entertain clients. Likewise, reverse charging would have to ensure that consumption items bought free of tax are not diverted to personal use without payment of tax. A VAT seems better placed to tax these goods, because evading the tax requires taxpayers to fraudulently claim a tax credit. Reverse charging, on the other hand, induces them simply to "forget" that tax should have been self-assessed.

Finally, under a VAT, intermediate traders have an incentive to join the system; under reverse charging, they might want to opt out of the system. In sum, it is hard to escape the conclusion that generalized reverse charging would throw the baby out with the bathwater.

2.6.3 Universal cross-checking and VAT bank accounts

According to the Commission, the proper enforcement of reverse charging would largely depend on the level of the additional reporting obligations that would have to be imposed, particularly the detailed monthly listings of transactions subject to reverse charging as well as transactions subject to the normal VAT (European Commission, 2008, p. 47). The levels of additional reporting range from no listing of transactions to global listing to transactions-based listing for both suppliers and/or purchasers. The matrix in table 2.4 shows the extent to which these obligations would allegedly enable the VAT authorities to cross-check taxable transactions and pinpoint the source of any mismatch.

In theory, online transaction-based reporting by both supplier and purchaser (the last horizontal and vertical columns in table 2.4) should enable the VAT administration to cross-check all sales and purchase invoices, and this requirement is at the heart of the German proposal. As argued above, the experience of Korea and China indicates that large-scale transaction matching generates considerable unproductive work and greatly increases administrative and compliance costs. According to Gebauer, Nam, and Parsche (2007, pp. 11-12), the one-off costs of operating the German scheme in the first year of operation would increase by approximately one-fourth, in addition to the annual increase in operational costs. Furthermore, the system would have to be introduced on an EU-wide basis if businesses engaged in cross-border trade would not have to face different tax systems.

Table 2.4 Additional reporting obligations under reverse charging

Purchaser / Supplier	No additional reporting obligations	Global listing: VAT number of supplier + global value of purchases	Transaction-based listing: VAT number of supplier + amount of each transaction
No additional reporting obligations	Normal audit; no verification of transactions		
Global listing: VAT number of purchaser + global value of supplies	Rudimentary cross-check; indication of mismatch but not source	Cross-check; indication of source of mismatch	
Transaction-based listing: VAT number of purchaser + amount of each transaction	Rudimentary cross-check	Full cross-check; indication of mismatch	Exhaustive cross-checking; clear indication of mismatch

Source: Author's compilation based on European Commission (2008).

The complex monitoring mechanism under reverse-charging resembles the system of VAT bank accounts for ensuring VAT compliance. Such accounts used to be required in Bulgaria, but had to be abolished upon its accession to the EU (Harrison and Krelove, 2005, pp. 31-33). The mechanism obliges each VAT-registered person to open at least one VAT account into which customers must pay the VAT charged to them by their suppliers. In turn, suppliers use the deposits to meet their VAT liabilities to the government. No credit can be taken for VAT not paid into a bank account. Harrison and Krelove (2005, p. 32) conclude that the scheme by itself does not detect the usual forms of VAT fraud, that is, underreporting, false invoicing, transactions occurring outside the VAT system, and the like. Hence, it is not a panacea against VAT fraud. Compliance costs, moreover, are considerable. In fact, two VATs must be administered in tandem: one based on cash accounting and one on accrual accounting.

2.6.4 Conclusion

Comprehensive reverse charging, like exporter rating, is a system change that does nothing to improve the verification and audit of existing VATs. Apparently, proponents of reverse charging have an ineradicable belief in the efficacy of cross-checking with respect to domestic as well as cross-border transactions. This flies in the face of an old military adage that holds that an obstacle not covered by fire is no obstacle to the enemy. In VAT jargon: the introduction of Stasi-like, highly intrusive, and costly extensive listing requirements are no substitute for comprehensive audit.

2.7 Summary of findings

What lessons do this review and evaluation of EU tax coordination issues have for other common markets and federations, such as the U.S.?

Firstly, a VAT is superior to an RST in including most consumer goods and services in the base and in excluding most producer goods. Accordingly, a VAT is a more neutral consumption tax and does a better job in effecting correct BTAs.

Secondly, the EU experience shows that VATs along with destination-based BTAs can be administered successfully in common markets without border controls and, by extension, in single domestic markets, such as the U.S. The replacement of deferred payment by some exporter rating scheme is not necessary, and would not solve the problem of cross-border fraud.

Thirdly, to control cross-border fraud, the focus should be on effective cross-border audit, which extends the jurisdictional span of control of each state’s VAT administration. Undue reliance should not be placed on extensive transaction-specific cross-border information exchange systems, which are prone to error and largely unproductive.

Fourthly, to allocate taxing rights properly in a common market or federation, it is important to define the place of supply precisely, especially with respect to services. B2B services should be taxed in the destination state and B2C services in the origin state (which generally is also the destination state). This distinction is best made by the kind of service supplied backed up by the VAT registration number or a general taxpayer identification number issued for, say, income tax purposes. Hence, it would not be necessary to issue VAT registration numbers to out-of-state buyers in non-VAT states.

Fifthly, the existence of a (supra)national VAT would facilitate but is not a condition sine qua non for exercising compliance control over state or provincial VATs. In the U.S., for instance, the cross-border audit of state VATs could be carried out in conjunction with the IRS’s audit of the income taxes. This implies that state VATs could be administered successfully in a common market or federation where other states do not have VATs or instead have RSTs (and/or various local RSTs).

These findings, strongly corroborated by Canadian experience, augur well for replacing state RSTs in the U.S. by state VATs with or without the umbrella of an overarching federal VAT. California here we come!

3 Improving the VAT treatment of exempt immovable property in the European Union[69]

The treatment of immovable property is one of the most difficult issues under the VATs in the EU. Ideally, rents and rental values should be taxed just like other consumer goods and services, but doing so would present formidable practical difficulties. Under a second-best approach, the value of newly created property is taxed as a proxy for the exempt flow of building services. This implies, however, that future increases (and decreases) in the value of the exempt property are left out of the VAT base. To remedy this defect, this paper recommends the replacement of the current transfer/registration and stamp duties on the sale of immovable property, which are highly distortionary, by a VAT on the increase (decrease) realized at the time of sale. Beyond that, the various VATs can be improved by applying the standard rate to all transactions in or related to immovable property, except the sale of residential premises.

3.1 Introduction and summary

Most member states of the European Union (EU) levy value-added tax (VAT), transfer duty (also called registration duty), and often stamp duty on transactions in or related to immovable property. While VAT generally is neutral with respect to producer and consumer choices, transfer duty and stamp duty, on the other hand, can be likened to non-neutral cumulative turnover taxes whose burden increases capriciously the more often immovable property is sold. To remove these distortionary cascading effects, the paper recommends that the various transfer and stamp duties imposed on the selling price of immovable property should be converted into a new "transfer duty" on the value added (defined as the difference between selling and purchase price) of immovable property, residential or commercial, that is currently exempt, by law or by election. The remaining (conventional) stamp duties on immovable property (and other official acts and deeds) should be abolished.

It is proposed to tax the increase (refund the tax related to the decrease) in the value of exempt immovable property upon sale (since VAT is a transactions tax) at the going rate at which newly created property is taxed. However, since sellers and buyers of exempt immovable property are not registered for VAT purposes in respect of that property, the transfer duty legislation should be retained (to avoid confusion with the main VAT) and its mechanism should continue to be linked to the immovable property registrar's office (*cadastre*). This approach resembles the margin methods applied in connection with the VAT treatment of second-hand goods, such as cars and works of art. The proposal would promote the neutrality and equity of the EU VAT.

[69] This paper was presented at a conference on VAT Exemptions: Consequences and Design Alternatives, organized by the Centre for Business Taxation, Oxford University, and the Fiscal Institute, Tilburg University, held at Worcester College, Oxford, 15-16 April 2010, and issued in its Working Paper series. The paper has benefited from the report that the author (assisted by Gerhard Badenhorst) prepared for the Tax Policy Unit, National Treasury of South Africa, and the South African Revenue Service, titled *VAT, Transfer Duty, and Stamp Duty on Fixed Property* (June 2008).

If the margin scheme were adopted, the present and proposed application of VAT to transactions in immovable property can be summarized as follows.

1. Sales of immovable property between taxable persons are considered a "normal transaction," that is, VAT is imposed by the seller and a tax credit is available to the buyer.
2. Sales of immovable property by taxable persons to non-taxable persons also attract VAT (which is included in the sale price) in the normal way, although the purchaser, not being a taxable person, cannot take credit for it.
3. Sales of immovable property by non-taxable persons to taxable persons attract VAT under the capital goods scheme, which entitles the buyer to a notional VAT credit if he or she opts for taxation.[70]
4. Sales of immovable property by non-taxable persons to other non-taxable persons are subject to a "reformed" transfer duty, that is, a surrogate VAT, on the increase (decrease) in the value of the property. It is this reformed transfer duty that is the main subject of analysis in this paper.

These transactions would all be subject to VAT and no other transactions taxes would apply, but the new approach would not preclude the (annual) taxation of the ownership or use of immovable property, or, for that matter, the imposition of net wealth, estate duty and gift tax. Last but not least, much can be done to improve the VAT treatment of other transactions relating to immovable property. First and foremost, it would be advisable to tax the lease and sale of all immovable property (except previously occupied residential property) as is done under modern VATs, rather than exempt their lease and sale (except if the property is newly created) as prescribed under the EU's Common VAT Directive (Council Directive, 2006). Secondly, evasion and avoidance can be much reduced by the widest possible application of the standard rate to building land, construction, social housing, renovation and repair.

The remainder of the paper is organized as follows. The second section dwells briefly on the theoretical underpinnings of the VAT treatment of immovable property and its second-best practical application. Next, the third section provides an overview of the various ways in which transactions in immovable property currently are taxed in the EU – under the VAT as well as under other taxes, duties and levies. Subsequently, the fourth section attempts to give hands and feet to the proposal for taxing the increase (decrease) in the value of used residential and exempt non-residential property under VAT.

[70] Under the capital goods scheme, adjustments are allowed to the initial amount of input tax claimed, which reflect (proportional) changes in the use of capital goods (buildings, computers) for business or private purposes.

3.2 VAT treatment of exempt immovable property

In considering the nexus between VAT, transfer duty and stamp duty, as well as any recommendations for change, it is necessary to dwell briefly on the nature and design of the VAT, particularly as it relates to immovable property.

3.2.1 Theoretical considerations

It is widely agreed that the VAT should not distort market-based producer and consumer choices. This goal is served best if the VAT is imposed on the widest possible range of goods and services that are used or consumed by businesses and individuals. Exemptions violate the logic and functionality of the VAT. They distort input choices and harm exports. As an *in rem* tax, furthermore, VAT is ill equipped to influence the overall tax/expenditure distribution pattern for which the income tax and social benefit schemes are better targeted instruments.

These observations apply also to the VAT treatment of immovable property. All transactions in immovable property – land and buildings, residential or commercial, privately or publicly owned – should be included in the VAT base and taxed at the standard rate. This rate should apply to the construction, repair and maintenance, sale, lease or owner-occupancy of new and used immovable property. The VAT's tax credit mechanism should be relied upon to ensure that the VAT sticks only to consumer or end use of the services provided by immovable property, not to business use.

To elucidate the underpinnings of the correct VAT treatment of immovable property, it is instructive to view land and buildings as stocks that can be used for consumption or production purposes (Cnossen, 1996). If immovable property, such as a factory building, is used for production purposes, the services that it generates should not be subject to VAT. Normally, the value of these services will be incorporated in the price of production that, if sold, would be subject to VAT. Moreover, any VAT paid at the time of the purchase of the building should be creditable against the VAT chargeable on the products made by the factory situated on the property. If there is no VAT on sales, simply because there are no sales, a refund would be due.

From a theoretical point of view, the same treatment should be accorded immovable property that generates housing services. The theoretically most attractive solution would be to register all persons, natural as well as legal, who own or buy residential immovable property for VAT purposes. By purchasing a house or an apartment, these persons would become producers (called taxable persons under VAT legislation) of housing services. In their role as producers, they would subsequently sell the housing services to consumers. These consumers could be lessees who buy the services for consideration, that is, a rental charge, but it is also possible that the producers would put the dwelling at their own disposal. In other words, as owner-occupiers, they would "sell" the housing services to themselves in their role as occupier-consumers.

The VAT consequences of these events are obvious. The taxable person who buys a bundle of housing services in the form of a dwelling pays VAT on the purchase price, but at the same time, he is entitled to a tax credit (and refund, if due) for the same amount. If he sells the housing services to a lessee, he would have to charge VAT on the amount of the rental. The lessee, being a non-taxable consumer, would not be able to pass the VAT on; he would be stuck with it just like consumers of other services and goods. Similarly, in his role as owner-occupier, the producer of housing services would "charge" VAT on these services, whose value equals the rental value of the dwelling, rendered to himself as consumer. And like the lesser, he would have to remit that VAT (net of any VAT on inputs, such as repair and maintenance services) to the VAT authorities. And just like the lessee, he would be stuck with the VAT on the rental value of his dwelling.

In short, under a pure theoretical VAT, immovable property would always be a producer good.[71] Sales, rentals and rental values, would be taxable and a credit would be available for the VAT on purchase. The treatment of land would not differ from the treatment of buildings. If land generates production services, as in agriculture, it should be treated in the same manner as the factory above. If it is a producer good that generates consumption services because it is used for camping or hunting purposes, then the same reasoning holds as given above in respect of housing services. Feasibility considerations may dictate other solutions, but it seems incorrect to say that land should be left out of the base because it is not a consumer good. The issue is whether land generates (on balance, non-taxable) production services, or (in principle, taxable) consumption services.

3.2.2 Practical observations

In practice, the registration for VAT purposes of all owner-occupiers and the computation of all rental values would present formidable administrative (and political) difficulties that a VAT should not take on. But if rental values cannot be taxed, the taxation of rental charges would appear to favour owner-occupiers over lessees. Also, the practical problems of taxing small landlords might be severe. As a second-best approach, therefore, all countries with a VAT exempt rental values and nearly all countries rental charges as well. Instead, these countries tax new residential construction. But since the purchase price of a dwelling may be taken to represent the present discounted value of its future services, by extension the VAT on the purchase price may be considered a good proxy for the discounted value of the VAT that should have been levied on the flow of housing services. Thus, owners and lessors of dwellings are indirectly subject to VAT on the consumption of housing services by themselves or by lessees.

The equivalence between a VAT on rents and rental values and the "prepayment" of the same amount of tax through a VAT on the value of newly constructed (non-) residential premises, as

[71] Accordingly, it does not seem useful to view immovable residential property as a combination of a consumption good and an investment good. See Conrad and Grozav (2008).

well as the subsequent exemption of rents or rental values is illustrated in table 3.1. Working our way through the example, the value of the newly constructed dwelling is (for ease of calculation) supposed to be €2000, which attracts VAT at 20% or €400, invoiced to the purchaser and payable by the seller to the VAT authorities. However, since the buyer is subject to VAT on the rent that the dwelling fetches or the rental value if he "lets" the dwelling to himself, he is eligible for a tax credit of the same amount. Accordingly, his net VAT liability at the time of purchase in year 0 is nil.

Table 3.1 Equivalence of taxation and exemption of rents and rental values

Assumptions: : acquisition price of building = €2.000; straight line depreciation (40 years) = 5%; rate of return = discount rate = 10 percent; VAT = 20 percent

Years	0	1	2	3-38	39	40
A. VAT on rents and rental values						
VAT on building	400					
Input tax credit	– 400					
Rents/rental values		250	245	....	60	55
VAT on rents/rental values		50	49	....	12	11
Total VAT	0	50	49	....	12	11
PDV of VAT	400					
B. No VAT on rents and rental values						
VAT on building	400	-	-			
Input tax credit	0	0	-			
Rents/rental values		250	245	....	60	55
VAT on rents/rental values		0	0	0	0	0
Total VAT	400	0	0	0	0	0
PDV of VAT	400					

Furthermore, in year 1, the rent or rental value can be calculated as the sum of the depreciation in that year, that is, €50, plus the return on the investment, that is, 10% of €2.000, for a total of €250. Similarly, in year 2, the return is €50 plus 10% of the remaining investment of €1950, that is, €195, for a total of €245, and so on for the remainder of the lifetime of the building. As shown, in years 39 and 40 (when the building is fully written down) the rents or rental values can be calculated at €60 and €55, respectively. The VAT collected on these rents or rental values in years 1 and 2 is €50 and €49, respectively, and €12 and €11 in years 39 and 40. The present discounted value of the sum of these VATs on all rents or rental values equals €400, the same amount of VAT that was charged on the sale of the dwelling but that was washed out through the tax credit mechanism.

The calculation is much simpler when the dwelling is taxed but rents or rental values are exempt. In this case, VAT is charged on the sale of the dwelling (charged to the buyer, but invoiced by the seller), while rents or rental values are not subject to VAT. The amount of VAT remitted to the tax office is €400, exactly the same as the present discounted value of the VAT collected in years 1 through 40 on the taxable rent or rental value.

3.2.3 Putting the equivalence notion into practice

This is a neat result, which shows that the exemption of lessees (and landlords) and owner-occupiers does not favour housing services over the consumption of other goods and services. It debunks the notion that housing services are not taxed, because their current use is exempted. Two approaches can be used to put the equivalence notion into practice: the exemption method and the tax method.

Under the exemption method, prescribed in the EU's Directive on the common Value added tax (Council Directive, 2006), the sale, lease and use of immovable property (residential and non-residential) is, in principle, exempt, but newly constructed buildings, as well as alterations and maintenance of the existing building stock, are taxable without credit for tax. The exemption method needs a definition of specified non-residential use, such as hotel accommodation, boarding houses, camping facilities and parking space – all of which are taxable. Furthermore, since the business use and sale of existing non-residential immovable property also are exempt, an opportunity for optional registration and payment of VAT is desirable to avoid potential discrimination and cascading of tax.

Under the tax method, the sale and lease of all immovable property is, in principle, taxable, but residential rents (and rental values) are exempt (or outside the scope of the VAT), as is the sale of previously occupied residential property (unless sold by a taxable person). This implies that the construction, sale, lease, alteration, and maintenance of all non-residential buildings are taxable. Sales of existing buildings also are taxable, unless such buildings constitute residential property. The tax method requires a definition of residential use (but not of specified non-residential use, unless taxed differentially lower or higher), but optional registration and payment of VAT for commercial purposes does not have to be provided.

Relative latecomers to the VAT, such as Australia, Canada, New Zealand and South Africa have chosen the tax method for the treatment of immovable property. This method seems superior to the exemption approach on the philosophy that exceptions to the first-best VAT treatment of immovable property should be formulated restrictively. The tax method does this by including changes in non-residential property values in the VAT base (if the property is used for taxable purposes), while the exemption method does not do so if no use is made of the registration option.

Since the reach of the tax method is greater than the reach of the exemption method, it results in more even-handed and neutral treatment.[72]

Both methods must address the VAT implications of the supply of land, which is traded even less often than buildings are and is used more often for productive purposes in exempt sectors. The EU's 2006 Directive and Canada exempt all land, except building sites. New Zealand, on the other hand, taxes land as a second-hand good.[73] Similarly, Australia taxes land under a modified margin scheme (see below). The VAT treatment of land is closely tied in with the treatment of the agricultural sector. If agricultural activities are exempt, as is the case in the EU, it seems to make sense to exempt land as well. If not, the case for including land in the VAT base is strong.

Neither the tax method nor the exemption method includes changes in residential and exempt non-residential property values in the VAT base. Implicitly, it is assumed that the rate of return (also the discount rate) does not change over the lifetime of the immovable property. Obviously, this is not a realistic assumption. Property values rise and decline with implications for the level of rents and rental values and, by extension, the VAT that, in theory, should be payable on the current use of building services.

3.2.4 Conclusions

Three conclusions can be drawn from the discussion of the second-best VAT treatment of immovable property, which can serve as guidelines for practical policy action.

1. The taxation of newly created immovable property is a good but still second-best substitute for the exemption of rents and rental values, because the approach cannot take account of future changes in property values.[74]
2. On the philosophy that, basically, VAT should tax all goods and services and that exceptions to this rule should be interpreted restrictively, taxing all immovable property except residential property is a broader and therefore better approach than exempting all immovable property (residential as well as non-residential), except newly constructed property.
3. Equal treatment of taxed and non-taxable property requires the imposition of a surrogate VAT on transactions in exempt properties between non-taxable persons. The base of this VAT should be defined as the difference between the selling price and the purchase price of the property (net of, ideally, the cost of any subsequent alterations, which have been subject to VAT).

[72] Administratively, however, the tax method is more likely to involve contentious issues about splitting property into residential and non-residential use (for instance, a lawyer having an office at his home), which would occur less often under the exemption method. However, as in Canada, income tax rules can be used to solve most problems.

[73] For the taxation of land in New Zealand, see Harley (2007), and for the treatment of immovable property, Smith (2008). The Australian's GST treatment of immovable property is reviewed by Evans (2007).

[74] Also, it discriminates in favour of property existing before the introduction of VAT, if the pre-VAT tax burden on that property was lower than the hypothetical VAT burden would have been.

3.3 Actual VAT treatment of immovable property

Prima facie, the VAT treatment of immovable property in the European Union, highly complex and often obscure, does not easily fit the second-best theoretical framework developed above. This section summarizes the EU rules, as laid down in the 2006 Directive, and reviews the practice in the various member states. Additional or alternative taxes, duties and levies on immovable property transfers also are examined.

3.3.1 Common rules

The 2006 Common VAT Directive provides the following rules on the treatment of immovable property (Articles refer to Council Directive, 2006).

- The supply of land is exempt (Article 135(1)(k)), except building land (Article 12(1)(b)).
- Building materials, repair, maintenance and construction services are subject to VAT (Articles 14 and 24).
- New buildings (generally, before first occupation) together with the land on which they stand, are taxable (Article 12(1)(a)). Buildings are defined as including any structure immovable to or in the ground.
- Leasing and letting of used immovable property is exempt (Article 135(1)(l)), except hotel and holiday camping accommodation, parking facilities, permanently installed equipment and machinery (immovable by destination), and the hire of safes (Article 135(2)).
- The sale of used immovable property is exempt (see above), but taxable persons are allowed an option to be taxed (Article 137(1)(b-d)). The transfer of property as part of a going concern can be effected VAT free (Article 19).
- Input tax on property expenditure should be adjusted over a period of 5-20 years under the Capital Goods Scheme (CGS) when the property becomes taxable (Article 187).

3.3.2 Member state practices

Table 3.2 provides an overview of the VAT treatment of the construction, lease and sale of new and used property in the 27 member states of the EU (column 1).[75] Few member states apply the standard VAT rate (column 2) without further ado. Clearly, there is substantial variation (allowed under discretionary or transitional rules or by way of derogation) between member states, mainly because of historic, legal, budgetary or intergovernmental tax assignment reasons and the interaction with transfer and stamp duties. Perhaps the best way to try to get a grip on what is going on is to review the process of the creation of new buildings (starting with building land and construction work), move on to social housing and renovation and repair, and from there to leasing and letting, and the sale of used property. Along the way, the major VAT aspects in the various member states are noted.

[75] For an out-of-date but still interesting survey, see Scammell and Ernst & Young (2003), and Scammell (2004).

3.3.2.1 Building land and construction

Non-building land is exempt in all member states, except Italy where its sale is exempt 'with credit' (that is, zero rated), so that taxable persons can recover related input tax. In contrast to the rule prescribed by the 2006 Common Directive, which suggests that building land should be taxed, 14 member states exempt building land along with other land (table 3.2, column 3). In Slovakia, building land is exempt, if unless it is supplied in connection with an exempt building. In Finland, Germany, Luxembourg, Portugal, and the United Kingdom, developers can opt for taxation, so that they can recover any VAT incurred in preparing building land for construction purposes.

Construction work on new buildings (column 4) is taxed in all member states, although 10 member states apply a lower rate if the work involves residential buildings (in the Czech Republic and Slovenia this concession is due to expire at the end of 2010). In Luxembourg and Italy, the lower rate is confined to the principal dwelling – in other words, not to second homes, a provision whose compliance may be difficult to monitor. Ireland levies a lower than standard rate of 13.5% on all construction, whether residential or non-residential. Of course, in all member states, the VAT on construction work for new buildings, which are used for taxable purposes and for which the option of registration and taxation (if available) is being used, can be washed out through the tax credit mechanism. In Belgium, building work for a taxable person is subject to a reverse charge, which facilitates enforcement.

It might be expected that the VAT treatment of new buildings (column 5), including the distinction between residential and non-residential buildings, would follow that of the VAT treatment of construction work on new buildings, but this is not always the case. In several countries, the supply of new buildings is exempt. In Finland and Sweden, the exemption implies full taxation, because developers have to pay the full VAT on the "self-supply" of buildings (with credit for input tax) before they can sell them. In Denmark, the purchaser takes on responsibility for the developer's input tax under the capital goods scheme. In the UK, new buildings are only taxed if sold freehold; dwellings attract a zero rate. Some countries include rights *in rem* (rights falling short of outright possession, such as long leaseholds or rights as usufruct) in the VAT base. Various member states define reconstructed or renovated buildings as new buildings, so that they attract VAT.

Table 3.2 VAT treatment of immovable property in the European Union, 2010

Member State	Standard rate	Construction, repair and maintenance (residential / non residential) Building land	Construction work on new buildings	New buildings
(1)	(2)	(3)	(4)	(5)
Austria	20	E	20	Eº
Belgium	21	E	6 / 12 / 2021	21
Bulgaria	20	20	20	20
Cyprus	15	E	15	15
Czech. Rep.	20	20	10* / 20	10* / 20
Denmark	25	E	25	Eºº
Estonia	20	20	20	20
Finland	22	Eº	22	Eºº
France	19.6	19.6	19.6	19.6
Germany	19	Eº	19	Eº
Greece	19	E	19	19
Hungary	25	25	25	25
Ireland	21	E	13.5*	13.5*
Italy	20	20	4* / 10	4* / 10 / 20
Latvia	21	E	21	21*
Lithuania	21	21	21	21
Luxembourg	15	Eº	3* / 15	E
Malta	18	E	18	E
Netherlands	19	19	19	19
Poland	22	22	7 / 22	7 / 22
Portugal	20	Eº	5 / 20	Eº
Romania	19	19	19	19
Slovak. Rep.	19	19 / E*	19	19
Slovenia	20	20	8.5* / 20	8.5* / 20
Spain	16	16	4 / 7	7 / 16
Sweden	25	E	25	Eºº
United Kingdom	17.5	Eº / 17.5	17.5 / 0	0 / 17.5

Notes: E = Exempt, but Eº indicates that developers can opt for taxation and Eºº that developers can recover input tax if the building is sold to a taxable person. In columns (8) and (9): T = taxable; ø = option for taxation by taxable persons.
Sources: European Commission (2010) and "Taxes in Europe" database: Search Results, 2009; and country legislation. The table does not cover all exceptions to the main rules and some information may not be complete

Table 3.2 VAT treatment of immovable property in the European Union, 2010 (continued)

Social housing	Renovation and repair*	Leasing and letting (residential / non residential)	Sale of used buildings	Comments *excl. mat. if lower rate applies
(6)	(7)	(8)	(9)	(10)
20	20	10 / E°	E°	
6 / 12	6* / 21	E / T	E°	*dwelling ≥5 yrs old
20	20	E / T	E / T	
15	15	E	E	
10	10	E°	E	*until end 2010
25	25	E°	E°	
20	20	E°	E°	
22	22	E°	E°	
5.5 / 19.6	5.5* / 19.6	E° / T	E	*private dwellings ≥2 yrs old
19	19	E°	E°	
19 / E	9*/ 19	E / T	E	*old private dwellings;
25	25	E°	E / T	
13.5	13.5*	E°	E	*parking rate
4 / 10t	10	E° / T	E / T	*first housing
21	21	E / T	E	*first supply
21	21	E°	E°	
3* / 15	3* / 15	3 / E°	E°	*principal dwelling(or>20 yrs old)
E	18	E / T	E	
19	6* / 19	E°	E°	*painting/plastering if >15 yrs old
7	7	E / T	E / T	
E / 5	5 / 20	E° / T	E°	
19	19	E	E	
19	19	E°	E°	*if supplied with exempt building
8.5	8.5	E°	E°	*until end 2010
4 / 7l	4 / 7*	E / T	E°	*brick laying for repair dwellings
25 / E	25	E°	E°	
17.5 / 0	17.5 / 5*	E°	E°	*Isle of Man

In Austria, Denmark, Portugal and possibly some other member states too, developers incur cash-flow costs, because they cannot recover input tax until the time of sale of new buildings, although input tax can be recovered if the (non-residential) building is let to a taxable person. Conversely, cash-flow issues arise in Finland for developers who intend to let rather than sell. In most states, the rules for lettings and sales to exempt and partly exempt businesses create VAT costs, including costs for developers.

Some member states, for example France and Spain, provide a concessionary VAT rate to social housing (column 6), lower than the reduced rate already applicable to new residential premises. Generally, social housing is defined as housing that is partially or wholly financed by government. Of course, this implies that the lower rate or the exemption can exactly be replicated by an adjustment of the subsidy. In other words, the exception for social housing is redundant, and may result in tax avoidance.

Understandably, renovation and repair services (column 7) are more often taxed at the standard VAT rate than social housing or new buildings, because these services can be used for residential as well as non-residential purposes. Taxation at the standard rate without regard to end-use makes evasion more difficult. The reduced rate on renovation and repair services regarding old dwellings in Belgium, France, Greece, Luxembourg, the Netherlands and Spain are an invitation to misclassify the end-use and evade VAT.

Leasing and letting

The letting of residential premises is exempt in all but two member states (column 8). Apparently, to achieve parity between 'rooms for rent' and hotel accommodation, Austria taxes lettings at 10 percent and Luxembourg at 3 percent. Leasing and letting of non-residential buildings also are exempt under the 2006 Common Directive, but 10 member states tax leasing and letting, while nearly all of the other member states allow the option of registration and taxation. Some states do not have an option to tax, but the exemption for non-residential buildings is so limited that the option would be redundant anyway.

In Hungary, Italy, Latvia, Poland and Spain lettings of non-residential property usually are taxable. Greece and Italy tax the letting of a dwelling by a developer and France the letting of furnished or equipped business premises. Ireland taxes leases of 10 years or more at 13.5% on the agreed sum at the start of the lease. Malta taxes the lettings by a limited liability company to a taxable person, and Belgium finance leases of new buildings used for the taxable purposes of a business.

Sales of used property

Sales of used non-residential buildings are also exempt under the 2006 Common Directive. In Hungary, Italy and Poland, however, the exemption is very limited and never applies to business premises. In France, property sales by a property dealer (marchand de biens) are taxable, but usually only on the dealer's margin.

All countries, except Greece, Italy and five new accession states have an option to tax, although in Belgium it is of very limited application. Another four states only allow an option for leasing or letting, but not for sales, while in several countries the option is only available if the purchaser or tenant has a certain level of VAT recovery. In various member states, the wide-ranging compulsory taxation of property transactions means that there is less need for an option. A disadvantage is sometimes that a taxable person or landlord cannot opt in advance, and so may not be able to recover input tax until a purchaser or tenant is found.

Member states are required to adjust input tax on immovable property (and other capital goods) over a period of up to 20 years under the capital goods scheme. Most member states have a 10-year period, but do not apply the adjustment to building work. Finland and Ireland do not permit adjustments, but their rules for new buildings deal with many of the same situations where a capital goods scheme might otherwise be applicable.

Crazy quilt of taxation

Most likely, there is less alignment in the treatment of immovable property and construction across the EU than in any other area of the EU VAT. In most member states, the best-practice rule that all transactions in or related to immovable property should be fully taxed at the standard rate is honoured only in the breach. Possible exceptions are Hungary and Poland, which are noteworthy for the limited scope of their exemptions for immovable property. Several infringements of the neutrality criterion can also be noted. As an example, the rules in Belgium militate against speculative development; renovation as opposed to major reconstruction; purchasing second-hand property (because of registration tax); purchasing new property to sell on or to let, other than under a finance lease; the disposal of surplus business premises; and the inter-company letting or sale of existing building (which are exempt with loss of input tax) (Scammell, 2004).

The VAT treatment of transactions in immovable property in the EU would benefit from an examination of the approach found in Australia, Canada and New Zealand. Australia taxes all immovable property transactions, except sales of used residential property (and rents and rental values). A zero rate is applied to farm land and land owned by a taxable person as part of a going concern. In some cases a reverse charge is applicable to purchasers of immovable property, which eliminates potential cash-flow problems. Canada's federal GST treats immovable property in line with Australian practice. A similar approach is followed in New Zealand, which anticipated the VAT treatment found in Australia and Canada.

3.3.3 Additional or alternative taxes

All member states levy additional or alternative taxes on the sale or lease of new and used property, although the rationale for these taxes, which have not been harmonised, is weak. Table 3.3 provides an overview of their prevalence in the EU. Generally, revenues do not exceed 2% of total tax revenue, although Belgium, Ireland, Luxembourg, Malta, the Netherlands, Portugal, Spain and the United Kingdom are notable exceptions. Often the revenues accrue to regional or local governments (last column of table 3.3), complicating efforts at reform. The taxes can be a significant cost for business.

Table 3.3 Taxes on Transactions in Immovable Property in the European Union, 2009

Member State	English name	National name
Austria	Real estate transfer tax	Grunderwerbsteuer
	Legal and administrative duties	Stempel- und Rechtsgebühren
Belgium	Miscellaneous duties and taxes	Droits et taxes divers/Diverse rechten en taksen
	Registration, mortgage and court rights	Droits d'enrigstrement, d'hypothèque et de greffe / Registratie-, hypotheek- en griffierechten
Bulgaria	Taxes on acquisition of property	Данък при придобиване на имущества по дарение и по възмезден начин
Cyprus	Lands and surveys taxes	Τέλη που επιβάλλονται και εισπράττονται από το Τμήμα Κτηματολογίον και Χωρομετρίας
	Stamp duty	Τέλος Χαρτοσήμων
Czech Rep.	Real estate transfer tax	Daň z převodu nemovitostí
	Administrative fees	Správní poplatky
	Fee on building land betterment	Poplatek za zhodnocení stavebního pozemku
Denmark	Registration tax (stamp duty)	Afgift af tinglysning og registrering af ejerog pantrettigehder mv.
	Property release duty (derestriction)	Frigørelseafgift på fast ejendom
	Taxation of the sale of immovable property	Lov om beskatning af fortjeneste ved afståelse af fast ejendom
Finland	Transfer tax	Variansiirtovero/ Överlåtelseskatt
France	Principal registration duties	Principaux droits d'enregistrement
Germany	Real property transfer tax	Grunderwerbsteuer
Greece	Real estate transfer tax	Φόρος μεταβίβασης ακτυήτωυ
	Stamp duties	Φορολογία χαρτοσήμου
Hungary	Property transfer tax	Vissszterhes vagyonátruházási illeték
Ireland	Stamp duty on property	Stamp duty on property
Italy	Registration tax on property transfer	Imposta di registro
	Mortgage tax and land registry tax	Imposte ipotecarie e catastali
	Stamp duty	Imposta di bollo
	Replacement tax	Imposta sostitutiva
	Municipal tax on building licenses	Contributi concessioni edilizie
Latvia	Duty for consolidation of ownership and legal liens in Land Register	Nodeva par īpašuma itiesību un ķīlas tiesību nostiprināšanu zemesgrāmatā
Luxembourg	Registration taxes	Droits d'enregistrement
Malta	Duty on documents and transfers Immovables	Taxxa fuq Dokumenti u Trasferimenti - Immobili
Netherlands	Tax on legal transactions	Belastingen van rechtsverkeer
Poland	Tax on civil law transactions	Podatek od czynności cywilnoprawnych
	Stamp duty	Oplata skarbowa
Portugal	Immovable property municipal transfer tax	IMT - Imposta municipal sobre as transmissões onerosas de imóveis
	Stamp duty	Imposto do selo
Slovenia	Real property transactions tax	Zakon o davku na promet nepremičnin
Spain	Tax on capital transfers and documented legal acts	Impuesto sobre transmissiones partrimoniales y actos jurídicos documentados
	Tax on construction, installation and works	Impuesto sobre Constructiones, Instalaciones y Obras
	Tax on the increase in the value of urban land	Impuesto sobre Incremento del Valor de los Terrenos de Naturaleza Urbana
Sweden	Stamp duty	Stämpelskatt
UK	Stamp duty land tax	Stamp duty land tax

Source: European Commission: "Taxes in Europe" database: Search Results, downloaded 9 April 2010. Taxes on ownership and/or use of immovable property found in all member states are not shown. Taxes on transfers by gift or at death and some other duties or levies covered by the legislation also are not shown, but the revenues (which cannot be separated out) are included under yields.

Table 3.3 Taxes on Transactions in Immovable Property in the European Union, 2009 (continued)

Tax base or object	Most common rate(s)	Revenue yield 2007,% of Total tax	GDP	Beneficiary government
Purchase price	3.5% (2% for relatives)	0.56	0.23	Central/Local
Tenancy and loan agreements	Wide range of specific duties	0.70	0.29	Central
Deeds drawn up by notaries and banks	€50 for notaries; €2 for mortgages	1.05	0.46	Central
Contractual value	10% (12.5% in Walloon Region)	2.33	1.02	Central/Regional
Value assessed by Municipal Council	1.3%-2.6%	1.63	0.55	Local
Property value or amount of mortgage	3%-8%; 1% on mortgage	1.54	0.64	Central
Value of agreement or standard fee	1.5‰-2.0‰ or €34.17	1.11	0.46	Central
Transfer price or officially assessed value	3%	0.76	0.28	Central
Transfers and mortgage deeds	Wide range of specific duties	0.30	.011	Central/Local
Difference in value before/after improvement	Per m^2 specified by municipality	0.00	0.00	Local
Registration of ownership and mortgages	1,400 DKK+0.6% f sale p.(1.5% mortg)	1.04	0.50	Central
Increase in value due to change in zoning	40% on DKK 200,000,60% on balance	0.00	0.00	Central/Local
Sale price minus acquisition cost	Capital income tax rates	..	..	Central
Transfer price	4%	0.90	0.38	Central
Higher of price plus charges or market value	7.5%	1.24	0.53	Central/Reg./Local
Amount of consideration	3.5%	0.72	0.28	Regional
Contractual sale price	7%-9%	1.86	.059	Central/Local
Dales, rents and loans	3%	0.95	0.30	Central
Market value	10%	1.16	0.46	Central/Local
Contractual consideration	0%-9% (over 1 million)	4.00	1.24	Central
Market value or estimated rent	0.5%-15% (first house: 3%)	0.97	0.41	Central/regional
Amount of mortgage or value of property	Cadastre:1%, mortg.:0.5%-3% or €168	0.38	0.16	Central/regional
Deeds and documents	Most common: €14.62	0.79	0.34	Central/Reg./Local
Amount of mortgage	2%	0.44	0.19	Central
Amount of building cost and town planning	..	0.51	0.22	Local
Property value or amount of loan agreement	2% subject to ceiling of LVL30,000	1.20	0.36	Central
Market value	6%	7.45	2.72	Central
Market value	3.5% (5% for non-residential property)	3.60	1.25	Central
Market value	6%	2.62	1.02	Central
Market value or amount of mortgage	2% or 0.1%	0.64	0.22	Local
Type of document	Specific	0.16	0.05	Local
Higher of contractual price or taxable value	Rural: 5%; Urban: 0%-8%	1.54	0.56	Local
Higher of contractual price or taxable value	0.8%	3.01	1.10	Central
Selling price	2%	0.43	0.16	Local
Market value	6%; deeds: specific	4.46	1.65	Regional
Value of construction, installation or work	2.4%-4%	0.49	0.18	Local
Increase in value upon sale	Up to 30%	0.36	0.13	Local
Price of property or amount of mortgage	1.5% or 2%	0.63	0.30	Central
Consideration for chargeable interest	1%-4% on sale and 1% on rent	2.03	0.74	Central

Overview

Generally, the taxes shown in table 3.3 go by the name of transfer duty, registration duty or stamp duty.[76] The difference between transfer duty and registration duty tends to be one of name only. Both are levied on the sale price agreed to between the parties to the transaction or on the fair market value. The same applies to the lands and surveys taxes in Cyprus and the tax on legal (civil law) transactions in the Netherlands and Poland. Interestingly, various member states levy tax on new mortgages, which can be viewed as a proxy for the tax on the property which serves as collateral.

Various member states prevent the simultaneous application of VAT and transfer duty. In Cyprus, Germany, the Netherlands and Spain, for instance, transfer duty does not apply if the property transaction is subject to VAT. In Belgium, the registration tax is reduced to a nominal amount if VAT applies, but in the absence of a general option to tax, most sales are subject to higher rates of registration tax. Property sales in Italy are subject to high transfer taxes, which are reduced to a nominal sum if the sale is also subject to VAT. In Luxembourg, sales are subject to transfer tax of 7-10% whether or not they are also subject to VAT. This creates substantial tax costs, including for developers. In Spain, sales in exercise of an option under a finance lease are taxable, which creates costs for tenants who are not fully taxable. In Sweden, developers incur cash flow problems, if they let (adjustments under capital goods scheme) rather than sell property. In France, Italy, the Netherlands, Slovenia and Spain, the application of the VAT means that the sale of building land is not subject to transfer duty or that it is taxed at a reduced rate. This may be advantageous, since transfer duty, in contrast to VAT, is a non-recoverable cost.

Nine member states subject residential leases to registration tax or stamp duty. These countries are Austria (1%), Belgium (0.2%), France (2.5%), Greece (3.6%), Ireland (1%), Italy (2%), Luxembourg (0.6%), Spain (0.5%), and the UK (2%). Austria, Ireland, Spain and the UK apply these taxes also to leases of business premises. Portugal treats long leases as sales, subject to transfer tax. Usually, the basis of assessment is the total rents under the lease, but the UK and Ireland assess stamp duty on the annual rent.

Of particular interest for the purpose of this paper are the various taxes levied on increases in property values. Denmark, for instance, imposes tax on the capital gain realized on the sale of immovable property. Although subject to capital income tax, the base of this tax is identical to the base under a VAT levied on the increase (decrease) in the value of exempt property. Also, Denmark imposes a “derestriction” tax on the gain in the value of property whose zoning

[76] Elsewhere, the Australian States impose stamp duty on the transfer of immovable property, differentiated by state, property category (principal residences may attract reduced rates) and purchase price. There is no link between the federal VAT and the state stamp duty. In Canada, most provinces impose land transfer taxes, often at graduated rates. New Zealand does not levy transfer or stamp duties that complicate the picture.

designation changes from agricultural land to urban or cottage land, which implies permission to built up the land and hence a windfall gain. Similarly, Spain taxes the increase in the value of urban land, and Italy and Latvia have taxes that attempt to capture changes in value due to changes in the zoning designation of land.

The conventional stamp duties on official documents related to transactions in immovable property (and various other dutiable events) are a separate category. Although the rates, often specified by type of event, tend to be low, these duties exhibit the same cascading effects as transfer duties, at least to the extent that they do not represent a consideration for services rendered by government. As table 3.3 shows, many member states still are enamoured by these anachronistic levies.

Evaluation

This brief overview shows that there seems to be little rhyme or reason to the additional or alternative taxes on property transactions in the EU. In Italy, duplication and non-transparency has reached such proportions that the government has legislated a replacement tax (see table 3.3), purportedly in lieu of the registration duty, stamp duty, mortgage tax, cadastral tax and the duty on official concessions for medium- and long-term loans. Apparently, the duties that are supposed to be replaced are still being levied.

Little, if anything, can be said in favour of the present transfer (or registration) duties, which act as cascading turnover taxes on property transactions. The more often a property is sold, the more often transfer duty has to be paid. Also, the transfer duty causes a locked-in effect, that is, owners will hang on to their property longer than they would if there had been no transfer duty. In economic terms, ownership preferences and risk profiles diverge, similar to a tax on capital gains, and residential mobility suffers. If possible, tax systems should avoid such effects; they are a deadweight loss to the economy. Also, there is an element of double taxation if VAT as well as transfer duty apply, for example in the case of a newly built dwelling (subject to VAT), which is subsequently sold by its occupant (subject to transfer duty). Further, no case can be made for levying transfer duty on commercial property transactions – final consumer expenditures should be taxed, not business inputs (unless externalities have to be accounted for).

Generally, there seems to be little pressure for less complexity and greater neutrality in the member states with respect to the taxation of immovable property, perhaps because the taxes are "old" and the European Commission does not provide much guidance. Beyond that, there is the issue that the disparities in the tax treatment of immovable property may be mitigated (or compounded!) by differences in the price and availability of property, differences in land law, the nature and security of tenure, in planning regimes and grant funding, and other factors. In other words, second-best considerations indicate that if one aspect of the treatment of immovable property is changed, all the other aspects should be changed, too. But even with this caveat in mind, there remains a case for improving the nexus between VAT and transfer duties to which I now turn.

3.4 Improving the nexus between VAT and transfer duties

It is suggested to adopt a two-pronged approach to promote greater rationality and neutrality in the taxation of immovable property transactions. First, the tax method should be adopted in the EU, that is, all transactions in or related to immovable property should be taxed, except rents and rental values and sales of residential and exempt non-residential property to non-taxable persons. This method is superior to the exemption method currently in use. The adoption of the tax method should be used to review the rationality of the disparities within member states shown in table 3.2.

Secondly, the increase (decrease) in the value of exempt property, residential and non-residential, realized upon sale, should be brought into the VAT base. Importantly, if this margin scheme would be extended to all immovable property currently exempt in the EU, the explicit adoption of the tax method might not be necessary (although it would still be desirable to eliminate other disparities). Presumably, taxable persons then would more readily opt for registration and taxation which would automatically bring the increase (decrease) in the VAT base. Further, it is proposed to retain the transfer/registration duty collection mechanism for the margin scheme applied to transactions in exempt immovable property.

3.4.1 Applying the margin scheme to transfers of exempt property

Two situations can be distinguished in implementing the margin scheme for immovable property transactions in the VAT system: sales from non-taxable persons to taxable persons and sales from non-taxable persons to other non-taxable persons. No special consideration needs to be given to sales between taxable persons and by taxable persons to non-taxable persons, since the normal VAT regime applies.

Sales from non-taxable persons to taxable persons

The rationale for VAT schemes for second-hand goods is that their purchase and subsequent sale by taxable dealers, who would pay the full VAT on the sale price without any credit, would involve double taxation. After all, the VAT would be in addition to the old VAT for which no credit would be given. Thus, without good reason, the VAT would deter the re-use of goods and would divert the trade in second-hand goods to private channels. Accordingly, specialization would suffer.

In recognition of this fact, countries with sophisticated VAT systems allow taxable persons in second-hand goods a credit for the tax that may be assumed to be included in the purchase price. This credit can be given implicitly at the time of resale by applying the VAT to the difference between the selling price and the purchase price (second-hand goods method) or by allowing the tax credit immediately against sales at the time of purchase (margin scheme). Under the second-hand goods method, second-hand goods are not held VAT free by dealers, unlike other goods held in inventory. This violates VAT's philosophy, because the dealers incur an interest cost on the VAT until the time that the second-hand goods are resold. In contrast to the second-hand goods method, no interest cost is incurred under the margin scheme. Moreover, like new goods, the tax credit is also available if the dealer decides to use the second-hand good, say, a truck, in his own business.

In terms of technique, margin or second-hand goods methods do what they should do, that is, eliminate double VAT, if second-hand goods have decreased in value while in the hands of non-taxable persons. Double VAT is eliminated by allowing the taxable purchaser a notional credit for the VAT (t) deemed to be still included in the purchase price, which can be calculated at t/(1+t) of that price. Without a cap to the credit, however, more than the original VAT would be eliminated if the second-hand good had increased in value. Accordingly, the tax credit should be limited to the tax calculated on the purchase price or the selling price whichever is lower.

Generally, the capital goods schemes in the various member states permit this treatment also to sales of immovable property by non-taxable persons to taxable persons in whose hands the property is not exempt.[77] This promotes neutrality, although the periods during which the schemes must be applied are rather short.

Sales from non-taxable persons to other non-taxable persons

Apart from the revenue it raises (an important consideration), the only rationale for levying transfer duty on immovable property transactions between non-taxable persons is that the duty resembles a poorly designed surrogate VAT on the increase in rents and rental values associated with increases in property values. These increases are left out of the VAT base due to the "prepayment" feature of the VAT on exempt building services. But if this is its rationale, the base of the transfer duty should be redefined as the difference between the selling price and the purchase price (or some proxy if information on the purchase price is not available) of immovable property traded between non-taxable persons. This difference, which reflects the present discounted value of the increase in building services since the acquisition of the exempt property, should be included in the VAT base and taxed at the standard rate, either at the level

[77] Theoretically, a credit should also be allowed for the non-creditable VAT paid by the non-taxable person on any repairs or alterations of the immovable property during the period in which he held the property. However, this may not be permitted for the obvious reason that it would be difficult to monitor the VAT paid in respect of repairs or alterations. The effect would be limited if major repairs and renovations are considered as supplies of new property.

of the seller or the buyer of the property through a reverse charge. This would eliminate the cascading effect of the present transfer duty, although the locked-in effect would remain.
The margin scheme (to be distinguished from the second-hand goods method) for immovable property can be incorporated in the VAT (and the transfer duty abolished) or it might continue to be called transfer duty, while retaining the procedures (only for individuals and non-registered entities) currently on the transfer duty statute. Since the new transfer duty should be levied in close cooperation with the administration of the immovable property registrar's office, retention of the transfer/registration duty mechanism for assessing and collecting the new tax probably is to be preferred. Although de facto separate taxes, obviously the new transfer tax is a supplemental VAT.

The major advantage of this approach is that it would achieve broad neutrality in the VAT cum (new) transfer duty treatment of taxable persons and non-taxable persons.[78] Basically, all transactions in immovable property between non-taxable persons should be subject to the reformed transfer duty, including those by or between governments and non-profit organisations. Also, the increase in value should be taxed if immovable property passes on to heirs and legatees. On feasibility grounds small value increases of, say, €25.000 or an amount which would mirror the current transfer duty exemption, might be exempted. The separate collection of the VAT on the margin (presumably over time confined to residential and non-commercial property) would make it possible to cede the revenue to regional and local governments in lieu of the revenue from the old transfer, registration and/or stamp duties.

Other issues

An interesting issue is whether or not the new transfer duty should be refunded if the property is sold below its acquisition cost. In principle, the answer is affirmative. The future value of the housing services embodied in the property has declined and so has the value of future consumption. In practice, the refund issue is unlikely to occur, because as a cash-flow tax the VAT is based on nominal, not real values of properties actually sold. Since the new transfer tax would only apply to transactions between non-taxable persons, any application for a refund should attract the attention of the VAT authorities, which can then check suspicious transactions.

Another issue which may be raised is whether the redesigned transfer duty resembles a capital gains tax. The answer is an unqualified "no". Although the two taxes are imposed on the same base, that is, the difference between the sale price and the acquisition price, the new transfer

[78] Of course, the VAT credit (calculated on the original acquisition price) allowed to a taxable person buying immovable property from a non-taxable person might have to be calculated on the basis of a price before the introduction of the VAT, but this may be acceptable on the philosophy that the previous sales tax also applied to construction and because of the enormous increases in property values. Australia introduced a margin scheme to ensure that only post-GST (=VAT) increases in the value of immovable property would be subject to GST. See Australian Government (2010), and C. Peacock (2006).

duty is a tax on consumption, whereas the capital gains tax is a tax on income. By analogy, the taxpayer whose gross earnings are subject to income tax and whose earnings after tax, which he spends, are subject to VAT, pays two taxes but is not doubly taxed.[79]

In considering the difference between a realized capital gain and an increase in value added, it may be pointed out that a taxable capital gain represents an ex-post adjustment for past accruals of income. Ideally, the tax should be imposed as the gain accrues rather than upon realization. Accordingly, it would be appropriate to levy interest on the tax on the realized capital gain over the period during which the gain accrued. By contrast, the VAT on the increase in value added should be considered an ex-ante adjustment of the discounted present value of future housing services. Interest or indexing arrangements would, therefore, seem inappropriate. True, the owner-occupier of housing services, whose present value has increased, has benefited from not having had to pay more VAT after he bought the dwelling, but this fortuitous result is inherent to a cash-flow consumption tax under which the VAT on durable consumer goods is prepaid rather than imposed as the services of the durable goods are consumed.

3.4.2 Abolition of stamp duties

What to do with stamp duties, which are not another name for transfer or registration duties, as in Ireland and the UK? The answer is simple: abolish them. Generally, conventional stamp duties regardless of on what legal documents (deeds, bills of exchange, bonds, leases, marketable securities, and the like) they are imposed are archaic levies, which resemble distortionary, cumulative turnover taxes whose cumbersome administration may well cost more than the revenue collected. Often the duties can be avoided by changing the form in which business is conducted. Evasion is possible by misstating values, by using fake stamps or none at all, particularly on small transactions.

This applies also to stamp duties on leases and/or sales of residential and commercial immovable property, which, as argued above, cannot be rationalized as surrogate VATs on the increase in the value of building services not included in the base of the prepaid VAT. Further, the stamp duty is a poor proxy for government services rendered in the form of roads, sewage services, etc. If government provides services that benefit residents and businesses, direct payments should be preferred or payments based on a close proxy for the services rendered, such as municipal property rates.[80]

[79] Even the amount of the tax is the same if the income tax rate is expressed as a percentage of income excluding tax, or the VAT rate as a percentage of consumption including VAT. The formula $t_i = t_e (1 - t_i)$ can be used to convert a tax-inclusive rate, t_i, into a tax-exclusive rate, t_e.

[80] A fairly recent study carried out in Australia (Property Council of Australia, 2003) stated that the abolition of stamp duty on leases would deliver the following benefits: directly reduce the tax burden on businesses, large and small; reduce the cost of leasing space for business tenants; remove a complicated, onerous tax; remove the uncertainty associated with basing lease duty on forward estimates of rental flows, including the impact of rent reviews that would take place in unknown future circumstances; and remove the reliance on a tax that fluctuates with the property market.

In the member states of the European Union, the complete abolition of the remaining stamp duties on immovable property, no doubt, would be welcomed by the business community and show the country that governments are not only interested in levying "more taxes," but also in rationalizing the existing tax system by weeding out nuisance levies. Part of the loss in revenue (very little) would be compensated by an increase in income tax receipts, because the stamp duty would not anymore figure as a deductible cost in ascertaining taxable profits.

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The European Commission has issued a Green Paper on the future of VAT. It believes that the Member States should strive towards simpler, more robust and efficient VAT systems. The common VAT is distortionary, unnecessarily complex, and susceptible to fraud. Base broadening, rate unification, and improvements in VAT coordination should be on the tax reform agendas of the Member States. The Commission invites submissions on a wide range of topics.

This volume contains three studies on the EU VAT. The first study aims at improving the understanding and dialogue on the VAT between lawyers, economists, and accountants. The second study analyses VAT fraud, particularly carousel fraud, evaluates various proposals that have been made to replace the current transitional regime by a definitive regime under which intracommunity supplies would be taxed in conjunction with a credit in the state of acquisition, and revenue clearing between supply and acquisition states. The study argues that it is not the break in the VAT collection chain (the zero rating of intracommunity supplies) that is at the root of the problem, but the break in the VAT audit trail. Accordingly, it recommends the introduction and intensification of cross-border audits. The third study proposes that changes in the value of exempt immovable property should be included in the VAT base. This base extension should replace the highly inequitable and distortionary transfer and registration taxes and stamp duties that are currently levied on transactions in immovable property.

Sijbren Cnossen is advisor at CPB and professor in the economics faculty of the University of Pretoria. He is emeritus professor of economics of the University of Maastricht and emeritus professor of tax law of Erasmus University Rotterdam. He has held appointments at the Law Schools of Harvard University and New York University, and at the College of Europe at Bruges. He started his career as a tax inspector in the Dutch Tax Service and was assistant division chief in the Fiscal Affairs Department of the International Monetary Fund. He has advised many countries on the design of their tax system.