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Coordinating VATs Between EU Member States

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Abstract

The paper surveys coordination requirements for a final European VAT (short for viable integrated VAT) system. Using a set of criteria that can be identified from the EU VAT program for the single market, we analyze the potential superiority of the Commission's 1996 VAT proposal and four alternative VAT systems over the current transitional regime. We argue that the recent withdrawal of the 1996 VAT proposal is economically beneficial, as this VAT reform would have generated substantial costs for EU member states due to losses in national tax autonomy and adverse incentives in VAT collection and control. If the Commission adheres to its political desiderata, the VIVAT regime turns out to be a promising blueprint for the EU. If the Commission decides to lay aside its preference for compliance symmetry, and accepts that different treatment of domestic and cross-border supplies under the transitional VAT regime should not be regarded discriminatory in the Internal Market, then keeping and revising the transitional system should turn out to be a good VAT strategy for Europe.

Keywords: value-added tax, tax coordination, European Union

JEL Code: H20, H87, F42

1. Introduction

The traditional European VAT system (Cnossen and Shoup, 1987; Tait, 1988), laid down in the two VAT Directives of April and May 1967, offers four attractive economic features:

(i) The credit/invoice system applied to each production stage avoids the cascading effect that is characteristic of gross turnover taxes and discriminates against specialized firms in favor of vertically integrated firms.
(ii) The recouping effect ensures that final consumption bears the intended (standard, reduced or zero-rate) VAT burden, irrespective of the VAT rates, which are applied at intermediate stages in the chain of business production.
(iii) Zero-rating of exports in the country of origin and charging import VAT in the country of destination ensure that desirable properties carry over to international transactions. All commodities and services sold to the final consumers in a country are taxed at the same rate, whether they have been produced domestically or abroad. The destination principle is fulfilled.
(iv) The European-type VAT raises more revenue with lower administrative and economic costs than any other broad-based consumption tax, and allows the government to raise roughly 0.4 percent of GDP for every percentage point of the VAT rate.

Initially, border controls were an important feature of the European VAT system, since they provided evidence of border-crossing transactions, thus verifying the entitlement for zero-rating upon exports as well as the obligation to pay import VAT. However, upon completion of the single EU market in 1993, border controls between EU member countries were abolished and the well-established border tax adjustment mechanism could no longer be operated and controlled by customs authorities. Facing this problem, the EU Commission launched several proposals for a modified European VAT system. The draft directives of 1987 (COM (87) 320-324) and 1989, which stipulated VAT rate bands and VAT revenue distribution through cross-border VAT crediting in conjunction with a tax clearing mechanism did not, however, find unanimous support in the EC Council. Finally, a transitional VAT system was approved in two directives (Directives 91/680/EEC and 92/77/EEC) and implemented in the member countries by January 1, 1993. This new VAT system, which was announced to be provisional from the outset and to be replaced by a definitive European VAT system by 1996, deviates from the initial European VAT system in three aspects:

(i) The border tax adjustment procedure for cross-border trade between EU member countries was changed, as national tax authorities could no longer rely on customs authorities. Since 1993, they have to monitor the proper rebate of VAT credits for exports to EU member countries (now intra-Community supplies) and the proper payment of VAT on imports from EU member countries (now intra-Community acquisitions) by checking the books of registered enterprises. This 'deferred payment system,' referred to as the 'transitional regime', however, was not new for all EU member countries. The Benelux countries had already been applying this mechanism successfully since the early seventies.[1] Deferred payment means that import VAT is not charged at the border, but explicitly at the level of the first inland purchaser who has to self-assess the 'import-VAT' and can take a credit for it— all in the same VAT-return.

(ii) Cross-border consumer purchases are no longer subject to border tax adjustment, but carry the VAT burden levied in the country of purchase. Within the single EU market, direct imports of households are therefore taxed according to the origin principle. There are exceptions from this general rule, as the destination principle is still applied for special regimes (household purchases of motor vehicles, mail-order sales and intra-community acquisitions of intermediate inputs by VAT-exempt firms).

(iii) National VAT rate autonomy has been restricted by an EU-wide minimum standard rate of 15 percent, by a ban of VAT rates that are higher than the standard rate,[2] and by a minimum reduced rate of 5 percent.[3]

For the member states of the EU, adaptation to the European VAT system is a process of diminishing tax autonomy. The VAT directives have constrained the room for the national design of the general consumption tax in steps, particularly through the Sixth Directive (Directive 77/388/EEC) and its amendments, and most recently through the introduction of the transitional system. The recent directives not only constrain the VAT structure, but also determine specific features of VAT administration[4] and participation in a comprehensive VAT information-exchange system.[5] Although the measures of the 1991/1992 VAT directives were approved as a package, not all of them are necessary to run a deferred payment

scheme, but provide additional information or allow member states to keep traditional practices of VAT administration.

The remainder of the paper deals with the future of the European VAT system. Section 2 addresses problems associated with the present transitional system that the Commission seeks to avoid in its 1996 proposal for a common European VAT. Section 3 argues that VAT has become an important pillar of general government revenue across Europe, and a harmonized VAT rate is thus unlikely to meet national budget requirements of EU member states. Section 4 shows that the clearing mechanisms, proposed to supplement the definitive European VAT, generate adverse incentives to national VAT collection and control efforts. Section 5 considers alternatives to the Commission's VAT proposal and compares them, using a number of economic and political desiderata for a definitive European VAT. Section 6 evaluates harmonization requirements of various VAT proposals and favors VIVAT as a promising candidate for a final European VAT regime. Section 7 concludes.

2. The Commission's Objections Against the Transitional VAT Regime

The transitional VAT regime has been frequently criticized by the EU Commission and, in particular, by the German government.[6] Objections against the transitional system focus on three problems.[7]

(i) VAT regulations on supplies and acquisitions of firms residing in different EU countries deviate from VAT regulations for transactions among resident firms. This asymmetry has been regarded as an untenable violation of the concept of a genuine single market and has been blamed for very high compliance costs.
(ii) The deferred payment system breaks the VAT chain at a vulnerable stage (at the dividing line of domestic and foreign tax administrations). The Commission is afraid that this weakness in VAT control may give rise to massive VAT fraud, given the fact that in the EU there is a permanent and huge flow of commodities that circulate free of VAT after the VAT rebate in the country of intra-community supply and before the deferred VAT payment in the country of intra-community acquisition becomes effective.[8]
(iii) Differing national VAT rates provide incentives for price arbitrage to consumers and revenue shifts to low VAT countries, which attract cross-border shoppers. Moreover, strategic VAT rate competition may be induced among EU governments.

To redress these potential shortcomings, the Commission submitted a comprehensive work program for a common VAT system (Commission, 1996; Smith, 1997; Aujean, 1998), which was supposed to replace the transitional VAT regime by 2002. The 1996 VAT system can be characterized by five basic properties:

(i) VAT on intra-community transactions is levied according to an EU-wide credit/invoice system. Although zero-rating of intra-community supplies is abolished, the recouping effect prevails. Intermediate goods and consumer goods sold at retail are charged according to the destination principle.
(ii) VAT on all taxable transactions in the EU is collected at the place of business establishment, irrespective of the location of the transactions. The "single place of taxation"

principle (home-state taxation) avoids zero-rating of intra-EU sales and treats domestic and cross-border sales to consumers and businesses alike.

(iii) VAT revenue that is collected by national tax authorities is redistributed to the national treasuries by a supranational apportionment of EU-wide VAT revenue according to national accounts data on consumption.

(iv) VAT bases and VAT rates are harmonized EU-wide.

(v) National tax authorities follow standardized rules in collecting and controlling VAT payments and are obliged to provide mutual assistance to VAT authorities of other EU member countries.

Although announced as a completely new and innovative approach, the 1996 VAT proposal exhibits close affinity to the draft directives of 1987/89, which were rejected by the EC Council.

The search for any definitive European VAT system reveals the dilemma of two mutually exclusive objectives, namely:

- the preservation of tax autonomy by EU member states, a target that has gained strong political support after the explicit embodiment of the subsidiarity principle in the Maastricht Treaty (now art. 5 of the EC Treaty), and
- the non-interference of the taxation of goods and services with the fundamental economic target of undistorted competition in the Internal European Market.

The EU Commission seems to have solved this dilemma by sacrificing VAT rate autonomy. Fiscal autonomy (the national right to levy taxes in line with budget needs and national preferences) has been ranked lower than single market objectives, at least with respect to VAT.

While it is true that tax harmonization can act as a remedy against welfare losses of strategic tax rate competition by avoiding a ruinous race to the bottom if tax bases are highly mobile, it is much less clear whether welfare gains through harmonization can be earned in a world with non-symmetric countries and evidence that cross border shopping is a marginal phenomenon in border regions.

Within the EU, efficiency requires that each country's government provides the welfare-maximizing amount of public goods, to be financed by the least distorting pattern of tax revenues. Any binding constraint on national VAT rate setting will prevent a member country from earning the desired amount of VAT revenue, will incur higher welfare costs of revenue collection and public good provision, and will violate the international efficiency target (Genser and Haufler, 1996; Lockwood, 1998).

The Commission correctly deplores the high control and compliance costs of the transitional VAT regime, which absorb scarce resources and create a "border tax burden" discriminating against intra-Community trade (cf. Verwaal and Cnossen, 2002). Replacing the transitional regime is regarded as a way to get rid of compliance asymmetry and of monitoring and control requirements in fighting VAT fraud—two major reasons for the high collection costs. But this view of VAT collection costs ignores a further source of inefficiency (that is, a lack of incentives for efficient tax administration if a considerable share of collected taxes does not feed the domestic budget but must be passed on to other member states).

The following two sections argue that fiscal autonomy and incentive compatibility are essential features of a well-designed VAT regime.

3. VAT as a Source of General Government Revenue

Since its first introduction by the six founding members of the European Economic Community (EEC) in the late sixties, VAT has become an important source of budget revenue that is levied in 123 states across the world (Bird and Gendron, 2001; Ebrill et al., 2001, p. 6). In addition to its virtues with respect to competition and foreign trade relations, the VAT can be commended for its revenue capacity, which has been a main factor behind its success.

Germany was one of the first nations to introduce VAT in 1968. The importance of VAT for the German public sector has been widely acknowledged (see Table 1). First, VAT revenue accounted for one-third of general tax revenue (excluding social security contributions) and more than one-sixth of total tax revenue (including social security contributions) in the last three decades. Second, the standard rate was raised six times over this period in order to meet general government budget requirements. Third, VAT revenue has become an extremely important source of revenue for sub federal governments. In line with constitutional obligations, the VAT revenue share of the states (including communities as part of the sub federal level) was raised from 30 percent in the seventies to almost 50 percent in 2001. The revenue gains are even more pronounced for poor states, because the Constitution stipulates that 75 percent of VAT revenue is allocated per capita, whereas the other 25 percent are used to close the gap between poor and rich German states.

In other EU member states the fiscal importance of VAT is even greater. Table 2 shows a 25 percent increase of the VAT/GDP ratio in Germany, whereas the average figure for the EU-15 almost doubled between the mid-sixties and the mid-nineties. In 2000, fiscal revenue from VAT covered nearly 14 percent of total tax revenue in Sweden and Luxembourg, but almost 24 percent in Portugal. The relative span of fiscal importance is only slightly smaller in relation to GDP, ranging from 5.9 percent in Luxembourg to 9.5 percent in Denmark.

Apart from fiscal policy targets earlier on, most EU countries made use of VAT rate autonomy by applying reduced rates to necessities and higher rates to luxuries (see first column in Table 3). The political motive for multiple VAT rates is tax equity in order to

Table 1. VAT revenue and VAT rates in Germany.

	1965[a]	1970	1975	1980	1985	1990	1995	2000
Revenue in bill. €	12	19	28	48	56	79	120	141
In % of total tax revenue	16.5	17.1	14.6	16.6	15.8	16.6	17.4	18.4
In % of GDP	5.2	5.6	5.3	5.5	5.2	5.4	6.7	6.9
VAT rates (reduced/standard)	4	5.5/11	5.5/11	6.5/13	7/14	7/14	7/15	7/16

Source: OECD (2002); Bundesministerium der Finanzen (2002).
[a]Gross turnover tax.

Table 2. VAT revenue ratios in the EU.

	In percent of total tax revenue			In percent of GDP		
	1965	1990	2000	1965	1990	2000
Austria	18.7	20.8	19.1	6.3	8.4	8.3
Belgium	21.1	16.4	16.1	6.6	7.1	7.4
Denmark	9.1	20.7	19.6	2.7	9.8	9.5
Finland	18.5	20.6	17.4	5.6	9.2	8.1
France	23.3	18.8	16.6	8.0	8.1	7.5
Germany	16.5	16.6	18.4	5.2	5.4	6.9
Greece	10.3	26.5	22.1	1.9	7.8	8.4
Ireland[a]	5.7	20.6	22.0	1.4	6.9	7.1
Italy	12.9	14.7	15.6	3.3	5.7	6.6
Luxembourg	12.4	13.4	14.0	3.4	5.5	5.9
Netherlands	12.4	16.5	17.4	4.1	7.1	7.3
Portugal[b]	8.4	19.6	23.7	1.7	5.8	8.1
Spain	22.2	16.0	17.6	3.3	5.3	6.2
Sweden	10.4	14.9	13.6	3.6	8.0	7.3
United Kingdom	5.9	17.0	18.5	1.8	6.1	7.0
EU-15 average	13.3	18.2	18.1	3.8	7.1	7.4

Source: OECD (2002).
[a]Figures for 1999 instead of 2000.
[b]Figures for 1970 and 1999 instead of 1965 and 2000.

mitigate the regressive pattern of VAT incidence. Empirical evidence, however, reveals that differentiated VAT rates are an ill-targeted instrument to help the poor in EU Member States (Cnossen, 2001, p. 493).

Given the evidence that Member States have been willing to use the room for VAT autonomy, there is no doubt that harmonized VAT rates in the Single Market will prove harmful for most of them.

A harmonized European VAT rate of 19%, corresponding to the unweighted average of the standard VAT rates in 2000, would create a revenue shortfall of 4.7 percent of total tax revenue in Denmark and a revenue surplus of 3.7 percent in Luxembourg (see Table 4). Since Member States would have to bear not only the costs for the reallocation of EU-wide VAT revenue, but also adjustment costs—if they are forced to accommodate to an EU rate which is higher or lower than their preferred national VAT rate—there seems to be little hope that supra-national "efficiency gains" under the new European VAT regime would outweigh these costs.

4. Incentive Effects of Clearing

Switching from zero-rating to origin-based taxation and intra-EU VAT crediting implies that VAT revenue charged on intra-Community supplies remains in the exporting country,

Table 3. VAT rates in the EU in percent.

	1990			2002	
	Reduced rates[a]	Standard rate	Increased rate	Reduced rates[a]	Standard rate
Austria	10	20	32	10 12	20
Belgium	0 1 6 17	19	25 33	0 6 12	21
Denmark	0	22		0	25
Finland[b]	0 5 12	22		0 8 17	22
France	2.1 5.5 13	18.6	22	2.1 5.5	19.6
Germany	7	14		7	16
Greece	4 8	18	36	4 8	18
Ireland	0 2.3 10 12.5	21		0 4.3 12.5	21
Italy	4 9 12	19	38	0 4 10	20
Luxembourg	3 6	12		3 6 12	15
Netherlands	6	18.5		6	19
Portugal	0 8	17	30	5 12	17
Spain	6	12	33	4 7	16
Sweden	0	25		0 6 12	25
United Kingdom	0	17.5		0 5	17.5

Source: Bundesministerium der Finanzen (2003).
[a]Exports and intra-Community supplies are zero-rated throughout the EU, so zeros in the table refer to zero-rated domestic supplies.
[b]VAT rates for 1994, when VAT was introduced in Finland.

whereas importing countries lose exactly the same amount of VAT revenue by matching VAT credit claims on intra-Community acquisitions. The Commission has made several proposals for a clearing mechanism to compensate for these revenue shifts.

While the VAT directive proposed in 1987 suggested a system of micro-clearing based on business documents of intra-Community transactions, the 1989 proposal included a system of macro-clearing, based on intra-Community trade and aggregate consumption data. Both clearing models were criticized as complex, non-transparent and costly. As a matter of fact, an approval of the respective draft directives could not be obtained in Council. The Commission's 1996 VAT proposal expands the macro-clearing mechanism to aggregate VAT revenue in the Community. It implies that total VAT revenue flows to an EU fund first and is allocated to national fiscal authorities according to macroeconomic consumption figures in a second step. This type of revenue sharing is well known in federal states (Germany, Austria, Australia), where shares of (joint) federal taxes are distributed to sub federal fiscal authorities according to well-defined formulae. Nevertheless Germany has experienced frequent political as well legal disputes about the appropriateness of the figures, and potential shortcomings and flaws in their calculation. This dispute occurred although the subsequent transfers, which are adjusted for differences in per capita income, have largely eliminated fiscal disparities among the German states. It is highly plausible that political disputes on national revenue shares will be much harsher among the member

Table 4. Revenue gaps for a harmonized EU VAT rate of 19%.

	In percent of total tax revenue			In percent of GDP		
	Actual revenue 2000	Uniform EU rate revenue	Revenue gap	Actual revenue 2000	Uniform EU rate revenue	Revenue gap
Austria	18.7	17.7	−1.0	8.3	7.9	−0.4
Belgium	15.3	13.8	−1.5	7.0	6.3	−0.7
Denmark	19.6	14.9	−4.7	9.8	7.4	−2.4
Finland	18.5	16.0	−2.5	8.5	7.3	−1.2
France	17.5	17.0	−0.5	7.9	7.7	−0.2
Germany	17.9	21.3	+3.4	6.6	7.8	+1.2
Greece	22.9	24.2	+1.3	7.7	8.1	+0.4
Ireland	22.2	20.1	−2.1	7.2	6.5	−0.7
Italy	14.2	13.5	−0.7	6.1	5.8	0.3
Luxembourg	13.7	17.4	+3.7	5.7	7.2	+1.5
Netherlands	16.9	18.3	+1.4	6.9	7.5	+0.6
Portugal (a)	23.3	26.0	+2.7	8.0	8.9	+0.9
Spain	16.6	19.7	+3.1	5.7	6.8	+1.1
Sweden	13.6	10.3	−3.3	7.1	5.4	−1.7
United Kingdom	18.1	19.7	+1.6	6.7	7.3	+0.6
EU-15 average	17.9	17.7	−0.2	7.3	7.2	−0.1

Source: Own calculation, based on the simplifying assumption of a constant VAT base.

states of the European Union, and unanimous agreement on appropriate formulae will be much more difficult to achieve.

The ultimate objective of VAT-clearing in the EU is the distribution of VAT revenue across member states according to final consumption, taking into account the fact that VAT is a consumption tax rather than a production tax. To some extent, this begs the question, because final consumption also includes government, which should be taxed on its output. Even if micro- and macro-clearing are based on consistent consumption data, and if operating and data collection costs are neglected, the two clearing mechanisms are not economically equivalent, since they generate different economic incentive patterns. Unfortunately, both clearing methods suffer from adverse incentives, which tend to erode national efforts to collect and control VAT properly and jeopardize efficiency gains from a common VAT system (which relies on clearing).

Under a macro-clearing regime, each national government receives a certain share of European VAT revenue. The share is determined by national accounts figures, which are checked and published by the European Statistical Office. Under a macro-clearing regime, Dutch VAT revenue depends on the Dutch consumption share as well as on total European VAT revenue. The amount of Dutch VAT revenue will be higher if efforts in tax administration and control prevent revenue losses through carelessness and fraud in all other member countries.

Even under a macro-clearing regime, VAT administration will remain the business of national tax authorities. Since higher efforts incur higher costs, the choice of the optimal effort level is an economic problem. For the national government, it will pay to invest an additional € in tax collection efforts, as long as national tax revenue rises by one € or more. While this incentive works if additional tax revenue flows back to the national budget and effort costs are covered, European revenue sharing creates a positive fiscal externality setting, and rational governments are likely to undersupply tax collection efforts.

If the Dutch VAT administration were able to collect a marginal revenue increment of 100 €, then consumption-based macro-clearing would raise Dutch VAT revenues only by 4 € (i.e. the Dutch share in EU aggregate consumption). The VAT share is even below 4 percent for the nine member states that are smaller than the Netherlands. Thus, macro-clearing provides incentives for low effort levels in VAT administration and lax VAT control in all member states. Resultant welfare losses could be overcome only if agreements on efficient VAT administration were enforceable in all member countries.

Under a micro-clearing scheme, each national fiscal authority transfers VAT revenue charged on intra-Community supplies to the clearinghouse, but is entitled to claim refund for VAT credits granted on intra-community acquisitions. The clearinghouse breaks even if inflows and outflows are based on the complete set of trade documents. But as long as the clearinghouse is supposed to rely on independent trade figures submitted by national VAT authorities, consolidation problems will occur, since for each taxable intra-Community transaction VAT payment and the corresponding VAT credit are documented in separate VAT returns and in separate national trade statistics. Whenever the clearinghouse has to rely on summary statistics, it is not able to trace back taxable transactions to firms in single countries. Given this information asymmetry, there is an incentive for member countries to monitor carefully proper VAT payment on intra-Community supplies, which increases national VAT revenue, whereas it hardly pays to invest in efforts on monitoring credit claims. Problems of disincentive effects of micro-clearing have been emphasized by several authors (e.g. Lee, Pearson and Smith, 1988). As VAT credit claims are fully refunded by the clearinghouse, marginal returns on monitoring efforts are likely to be negative. Undersupply of monitoring efforts on VAT credit claims will generate welfare losses and deficits in the clearinghouse balances, which hurt all member states. Again, clearing will work only if enforceable agreements on efficient VAT administration could be implemented throughout the EU.

5. Alternative Approaches for a Common European VAT System

Keeping in mind the importance of fiscal autonomy and incentive compatibility, we can supplement the revealed political objectives of the Commission in its various proposals for a definitive European VAT regime by a list of five desiderata, which might be used as a litmus test for VAT proposals. A promising European VAT regime can be characterized by

(1) national VAT rate autonomy,
(2) incentive compatibility in VAT administration,
(3) avoidance of breaks in the VAT chain within the internal market,

(4) compliance symmetry,
(5) VAT revenue allocation in line with national consumption.

Although the set of desiderata and the sequence of entries are derived from political preferences embodied in the EC Treaty, their relevance is based on a value judgment and is thus open to dispute. One criticism might be that the desiderata do not have an entry calling for low VAT collection costs. This would truly be a major fault, but collection costs do enter implicitly in items 2, 3 and 4, based on the assumptions that monitoring and compliance costs will be substantially lower if these desiderata are met. Making the desiderata explicit and transparent should help to evaluate competing VAT proposals by means of a well-defined catalogue of desirable properties and to identify potential shortcomings.

Evidently, the Commission's 1996 proposal violates two of these requirements (see Table 5). We therefore consider four other VAT regimes, which have recently been discussed in academic journals (see, e.g., Keen, 2000, or Cnossen, 2001). Three of them constitute a dual VAT rate structure and include VAT rates that are set at the Community level as well as the national level.

Keen and Smith (1996, 2000) propose a two-tier VAT structure, which they call VIVAT (short for viable integrated VAT). The first of these two tiers is a "Euro-VAT" which is charged at the same rate on all taxable transactions throughout the EU member countries. Cascading is avoided, as registered firms can claim Euro-VAT credits on intra-Community acquisitions. The second tier is a national retail sales tax, which is levied on sales to final

Table 5. Comparison of VAT proposals for the EU single market.

	National VAT rate autonomy	Incentive compatibility	Avoidance of break in VAT chain (VAT rate on intra-community supply)	Compliance symmetry	Clearing requirement[a] characterization of clearing regime
Transitional VAT regime	Yes	Yes	No (zero rate)	No	Low (special regimes)
Draft directives 1987/89	Yes	No	Yes (country of supply rate)	Yes	High (micro- or macro-clearing)
1996 VAT proposal (Commission 1996)	No	No	Yes (uniform rate)	Yes	High (VAT revenue sharing)
VIVAT (Keen and Smith)	Yes	Yes	Yes (uniform Euro-VAT rate)	Yes	Low (multilateral intra-Community trade imbalances)
CVAT (McLure)	Yes	No	Yes (uniform CVAT, zero national rate)	No	Low (multilateral intra-Community trade imbalances)
Dual VAT (Bird and Gendron)	Yes	Yes	No (zero rate)	No	Low (special regimes)
Prepaid destination VAT (Vanistendael)	Yes	No	Yes (country of acquisition rate)	No	High (bilateral VAT-transfers to destination states)

[a]National VAT revenue is allocated in line with national consumption, apart from tolerable cross-border purchases.

consumers (and non-registered firms). The retail sales rate is at the discretion of each member country. Final consumers pay an aggregate VAT burden consisting of the Euro-VAT and the retail sales tax in the country of purchase. Apart from cross-border shopping, the destination principle prevails. Since intra-Community supplies are taxed in the origin country, and VAT credits are granted in the destination country, a clearing mechanism is required to shift VAT revenue from member states with a current account surplus in intra-Community trade to member states with a current account deficit. As the Euro-VAT rate is the same throughout the EU, a multilateral clearing mechanism is sufficient to match the VAT revenue gap caused by the difference between intra-EU supplies and intra-EU acquisitions of each member state.

Bird and Gendron (1998, 2000, 2001) recommend the Canadian dual VAT as a blueprint for VAT regimes in federal states. In pointing out the key elements of Canada's success in implementing variants of a destination-based VAT that respects sub-national rate autonomy, the authors provide arguments why and how Europe can learn from the Canadian experience. Basically, the dual VAT (DVAT) structure for the province of Quebec, consisting of the provincial Quebec VAT and the Goods and Services Tax imposed throughout Canada as a federal VAT, can be implemented in Europe in an analogous way.[9] A European DVAT regime would consist of an EU-wide supra-national VAT and a separate national VAT. Both VATs would be administered at the national level. VAT on intra-Community supplies and exports to non-EU states would be zero-rated. Intra-Community acquisitions are handled by a deferred payment system, essentially in the same way as under the present transitional system. Zero-rating allocates VAT revenue in line with final consumption and does not require any clearing, but maintains breaks in the VAT chain for intra-community sales.

McLure (2000) advocates a CVAT regime (short for compensating VAT), which is based on a VAT proposal for the Brazilian federation. Under a European CVAT regime, taxable transactions would be subject to either the regular national VAT or the compensating VAT. In each member state sales to domestic customers (registered firms and final consumers) would be charged at the national VAT rate, whereas sales to non-domestic customers would be subject to CVAT, which is levied at the same rate in all EU member countries. This CVAT system avoids a break in the VAT chain, as registered firms can claim VAT credits for national VAT and for supra-national CVAT, paid on their domestic or intra-Community purchases of intermediate inputs (since CVAT payments and CVAT credits occur in different member states). CVAT requires a supra-national VAT fund, which serves as a micro-clearing authority for CVAT payments and CVAT credit claims.

A fourth proposal, due to Vanistendael (1995), requires registered firms to charge VAT on taxable transactions at the rates of their customers' residence. In addition, VAT revenue from non-domestic clients has to be transferred immediately to the tax authorities of the clients' countries of residence. Basically, this regime extends the current special regime for mail ordering to all taxable transactions.

In Table 5 we present an evaluation of these additional proposals based on the five desiderata developed above. The result of this comparison is that VIVAT proves to be the only regime that respects national tax autonomy, avoids disincentives for decentralized VAT administration, avoids a break of the VAT chain, treats domestic and intra-community supplies alike, and keeps clearing requirements low.

This favorable result does not, however, indicate the undisputable superiority of the VIVAT regime over its competitors. The evaluation in Table 5 is based on some criteria advocated by the Commission, which may be questioned in their scope and importance. Cnossen (1998, 2001) and Bird and Gendron (1998, 2001) argue that compliance symmetry is not a convincing desideratum. Although at odds with the legalistic view that the single European market requires symmetric treatment of national and intra-Community transactions, the authors hold the view that an asymmetric treatment can be justified as long it helps to save administration and compliance costs. Repudiating the compliance symmetry desideratum diminishes the advantage of VIVAT over CVAT and DVAT, but also supports the maintenance of the transitional regime.

Furthermore, Cnossen (2001, 497 ff.) recognizes the problem of tax fraud, but views the high monitoring and control costs, which are reflected in violation of desiderata 3 and 4, as misleading, since the break of the VAT chain could be handled with significantly lower costs compared to VIES and Eurostat regulations. Referring to the Dutch and Belgian experience, he claims that introducing unified VAT documents (which can be checked by tax authorities in the origin and in the destination country) would make the transitional system sufficiently resistant to VAT fraud. Bird and Gendron (1998, 2001) argue in the same way, stressing that the transitional regime already captures the essential features that in Canada eliminate tax evasion on inter-provincial sales.

Finally, some Table 5 desiderata will become less important if the focus is not on the EU but on a tax union of developing or transformation countries. In these countries problems of incentive compatibility or compliance symmetry will likely be of second order, since they might not be able to run a comprehensive VAT system efficiently without support by some supranational VAT authority.

6. The Coordination Requirements for Alternative VAT Regimes

Although EU member countries were forced to respect a series of VAT directives under the traditional European VAT regime (particularly the VAT base regulations under the Sixth Directive), resistance to these harmonization requirements was relatively low. Once the credit/invoice type, destination-based VAT system was adopted, member states had only the obligation to zero-rate exports and to charge proper national VAT rates on imports in a transparent and non-discriminatory way. Apart from Belgium, Luxembourg and the Netherlands, all other EU members applied border controls to implement the border-adjustment process. Member countries were free not only to levy VAT rates according to national policy objectives, and to determine national regulations of VAT compliance, VAT payment, and VAT control, but derogations from the 6th Directive also offered considerable room in defining national VAT bases.

The transitional system upheld most of the attractive features of the traditional VAT regime, apart from additional information requirements that replaced former border documents. VAT identification numbers were introduced to identify registered businesses from other member countries, and firms were obliged to provide detailed information on intra-Community trade under the VIES and Intrastat system. The abolition of internal borders also opened the door to consumer price arbitrage through cross-border shopping in low VAT

countries. The introduction of floors for the standard and the reduced VAT rate, the abolition of increased VAT rates, and the maintenance of the destination principle for vehicle purchases, mail ordering, and cross-border purchases of VAT-exempt firms were motivated by the desire to curb cross-border shopping and incentives to national governments for strategic VAT rate competition. VAT revenue shifts due to cross-border shopping are tolerated under the transitional regime, and no proposals for a clearing mechanism have been launched. First, small-scale cross-border shopping was already present under the traditional VAT regime for purchases below the tourist threshold, and there is no evidence of a significant rise after the abolition of border controls. Second, empirical evidence reveals that non-tourist cross-border shopping is a local phenomenon that has only limited effect on trade flows and national VAT revenue.[10]

The 1996 VAT proposal of the Commission, however, calls for a far higher degree of harmonization, (on tax bases, tax rates, measures for revenue sharing, and VAT control). VAT-base harmonization is required in order to extend the credit/invoice principle to intra-Community transactions. Rate harmonization is meant to curb strategic VAT rate competition and to facilitate clearing. Harmonized national account principles are necessary in order to keep VAT revenue in line with final consumption. Harmonized VAT control is unavoidable to overcome the disincentive effects in favor of lax VAT administration at the national level.

A condensed summary of the coordination requirements of the traditional and the transitional VAT regimes (together with the Commission proposals of 1987/89 and 1996) is given in the four upper rows of Table 6. In the four lower rows we extend the evaluation of harmonization requirements to the four alternative VAT regimes introduced in Table 5.

Table 6. Coordination requirement of VAT proposals in the EU single market.

	Harmonized VAT base	Harmonized VAT rate(s)	Harmonized revenue-sharing mechanism	Harmonized VAT control
Border control VAT regime (up to 1992)	No	No	No	Yes (border control)
Transitional VAT regime (since 1993)	No	No	No	Yes (zero-rating, tax fraud)
Draft directives 1987/89	Yes	No	Yes	Yes (undersupply of control effort)
1996 VAT proposal (Commission 1996)	Yes	Yes	Yes	Yes (undersupply of control effort)
VIVAT (Keen and Smith)	Yes	Partial (supra national VAT rate)	Low	Low (small clearing volume)
CVAT (McLure)	Yes	Partial (VAT on cross border trade)	Low	Yes (undersupply of control effort)
Dual VAT (Bird and Gendron)	No	Partial (supra national VAT rate)	No	Yes (zero-rating, tax fraud)
Prepaid destination VAT (Vanistendael)	Yes	No	Yes	Yes (undersupply of control effort)

Tax base harmonization is an element of all four proposed VAT regimes, although national VAT bases may deviate from the harmonized Community VAT base under a dual VAT.

VAT rate harmonization is required for the three two-tier VATs that include a harmonized Euro-VAT (VIVAT, DVAT, CVAT). But contrary to the Commission's proposal, rate harmonization under these three regimes leaves room for marginal variations of national VAT revenue through the second tier. Table 6 captures this lower degree of harmonization by a "partial" entry in column 3, which is further explained by remarks in brackets.

The larger the VAT share that has to be reallocated by a clearing mechanism, the more attention must be devoted to VAT revenue collection and transparent sharing. Only the definitive VAT regime will generate VAT revenue at the EU level, which then has to be redistributed to national fiscal authorities and therefore requires supranational standards of VAT collection and revenue sharing that can be monitored and enforced on the basis of decisions by the European Court of Justice in case of dissension. Vanistendael's prepaid destination VAT regime contains a revenue-sharing mechanism that puts the tax administration of the origin country in charge of collecting VAT revenue on behalf of the destination country and of remitting the funds immediately to the destination fisc. This mechanism resembles the micro-clearing system of the 1987 draft directive. The high coordination requirement for the Commission's proposals of 1987/89 and 1996, and the Vanistendael proposal, are recorded in column 4. DVAT includes a supranational VAT tier, but not necessarily a supranational VAT authority. If domestic fiscs keep VAT revenue from the supranational VAT, zero-rating of intra-Community sales implies that intra-Community revenue distribution coincides with the VAT revenue pattern of the transitional system and no further clearing mechanism is required.

Largely the same is true for CVAT. Under CVAT, intra-Community supplies are taxed in the origin country, but these VAT payments are passed on to the EU clearing fund, which in return covers VAT credit claims of destination country firms. The situation nevertheless differs, as CVAT is charged on intra-Community supplies to both registered firms and cross-border shoppers, which requires redistribution of these funds unless they are directly transferred to the EU budget. Under VIVAT, the revenue from Euro-VAT on intra-Community supplies remains in the origin state, and clearing is required to reallocate VAT to the destination state. But as intra-Community trade is subject to one single tax rate, bilateral trade imbalances cancel out to a considerable extent and the clearing volume for each member country shrinks to the Euro-VAT on the multilateral trade surplus of deficit with the rest of the EU members.[11] Table 6 (column 4) captures low coordination and clearing requirements by "low" entries for the transitional regime as well as for DVAT, CVAT and VIVAT.

Problems with efficient VAT control arise whenever low efforts by some VAT administrations generate negative externalities in other member countries yet do little harm to the domestic fisc. Substantial harmonization of VAT control is necessary under the 1996 VAT proposal because national incentives for controlling proper VAT compliance are insufficient. Harmonization of control efforts is also necessary for the prepaid destination VAT (when VAT revenue on intra-Community supplies is collected on behalf of another member state's fisc), as well as under CVAT (which requires a supranational authority to operate the intra-Community invoice/credit system). DVAT requires harmonized control mechanisms in order to avoid tax fraud through zero-rating of intra-Community supplies,

as is the case under the current transitional regime. VIVAT is an exception with respect to incentive compatibility, since VAT revenue remains in the collecting country, apart from a minor revenue share that has to be passed on to the multilateral clearinghouse. Column 5 of Table 6 has seven "yes" entries for harmonization requirements in VAT control, although for different reasons (see the explanatory remark in brackets). For VIVAT we add a "low" entry, since in spite of the low clearing volume some harmonization will be required to run the clearinghouse efficiently.

A comparison of all the alternatives offers evidence that coordination requirements for the transitional system and for VIVAT are lower than for all the other VAT regimes. On the one hand, Table 6 rationalizes the approval of the transitional VAT system in the early nineties, since it requires less harmonization than the alternative VAT proposals. On the other hand, the three low entries for VIVAT reveal that it may be worthwhile for the Commission to have a closer look at this VAT regime, due to its superior performance.

First, VIVAT does not break the VAT chain for intra-Community supplies and stops the different treatment of domestic and foreign customers. Second, VIVAT respects marginal fiscal VAT autonomy and permits incentive-compatible VAT administration. Third, VIVAT respects infra-marginal fiscal autonomy, as national fiscs keep nationally collected Euro-VAT, and little harmonization is needed to feed the clearinghouse. The clearing mechanism may even be discarded if multilateral intra-Community trade balances approach zero in a growing internal market.

The open issue of VIVAT is, however, collection costs. While VIVAT performs well with respect to administration costs, there remains the collection cost element of running a national retail sales regime parallel to a supranational VAT regime—since disincentive effects of VAT collection and VAT fraud are likely to be small and compliance symmetry reduces compliance costs. These costs are not addressed among the desiderata, as is the case with basic collection costs for all the other regimes in Table 6. One basic question is whether two-tier VAT regimes necessarily imply higher administration costs than single-tier VAT regimes. This is certainly the case if the VAT regimes are operated separately. But the Canadian example shows that dual VATs can be designed in a way that reduces collection costs substantially (Bird and Gendron, 2000). Based on an OECD survey reviewed by Cnossen (1994) and Ebrill et al. (2001, p. 53) argue that best-practice compliance and administration costs are largely fixed costs per registrant in a country, independent of the VAT payable per registrant. But fixed administration and compliance costs vary widely across countries according to the complexity of the VAT system (multiple rates, for example).

Finally, Cnossen (1993, p. 80f.) argues that one of the advantages of VAT over a retail sales tax is administrative feasibility; dispersion of the collection process over the whole of industry and commerce simplifies monitoring and control. While it is true that auditing is more costly under a retail sales tax than under a VAT, this does not necessarily apply under a dual VAT structure. Since the national retail sales tax does not increase the number of registrants, it is likely that administration and compliance costs do not exceed the corresponding costs of a second-tier VAT. There is nevertheless a compliance cost element associated with the VAT identification of business clients. Under VIVAT, retail sales taxes are charged only to final consumers, so business clients have to disclose their identity in order to qualify for retail tax exemption. This can be done by means of VAT identification numbers, much in the same

way as under the current transitional system in order to identify zero-rated intra-Community supplies. VIVAT thus faces an additional compliance cost element (the extension of VAT identification to all business customers), compared to the transitional system. But it is very likely that this additional compliance cost element is only transitional, since VAT identification numbers may become an essential component of any standard VAT invoice.

Once national retail sales taxes are introduced under VIVAT, the room for marginal fiscal autonomy might be used to implement multiple sales tax rates or to extend retail tax autonomy to sub federal governments. Economically, such a decision should result from a trade-off of social benefits and fiscal costs of tax autonomy in each member state and need not provoke supranational interventions.

7. Conclusion

Facing ongoing opposition from various member states, the Commission decided to withdraw its 1996 VAT proposal in 2000 and to switch to a strategy of short-term improvements of the transitional system. Economically, this decision must be regarded as beneficial for the EU, since a change to this VAT regime would have caused losses in national VAT autonomy, the implementation of a costly supranational mechanism of revenue sharing and additional harmonization requirements in VAT administration.

The change in the VAT agenda opens another round of discussion on the best VAT regime for the single Market. This paper attempts to provide a comprehensive comparison of the transitional system in force with Commission proposals and four recent alternatives. Using a catalogue of desiderata, which are derived from the EC Treaty and the Commission's guideline for VAT reform, we identified VIVAT as an attractive VAT regime for the EU.

Although there is evidence that the Commission is intent on maintaining its basic objectives (as the 2000 communication only changed the short-term VAT strategy), there is room to consider the set of desiderata and to open the discussion on potential modifications.

One result of our analysis is that the Commission cannot credibly promote a VAT proposal that fails to meet its own political value judgments (as was the case for the 1996 proposal). But this result also provides a guideline for the new agenda, because the same dilemma returns with the "short-term reforms of the transitional regime" strategy. Our analysis has shown that the transitional regime has its merits and can certainly be improved, but zero-rating of intra-EU supplies and compliance asymmetry will always remain essential elements. Either the Commission is prepared to review its desiderata (and withdraws compliance symmetry and abolition of zero-rating so as to commit credibly to a reform of the transitional regime), or it decides to keep the two desiderata. If it takes the latter position, the die is cast against the transitional regime and possibly in favor of VIVAT, as long as another superior VAT regime does not come along.

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Notes

1. Deferred payment was not only applied on trade flows between contiguous member states but also to imports from other member states and from third countries.
2. Special VAT rates on a limited group of luxuries, in particular motor vehicles, but also tobacco, alcohol, furs, or jewelleries, were levied in most EU countries up to 1992 (cf. Table 3).
3. There are, however several derogations from this minimum-rule, most notably zero rated items in the UK and in Ireland.
4. Administrative requirements included the introduction of VAT identification numbers, multiple registration of companies for VAT purposes, designation of VAT representatives, etc.
5. The VAT Information Exchange System (VIES) requires additional quarterly reports of intra-Community supplies and acquisitions, based on a detailed breakdown of trade items (Intrastat).
6. See, e.g. European Parliament (1995), Commission (1996), Bundesministerium der Finanzen (1994).
7. See, Commission (1996) or Smith (1997).
8. In a communication to the Council and the European Parliament (COM (2000) 348 final) the Commission provides figures for intra-Community trade of €930 billion and an estimated VAT revenue loss due to fraud of €8 billion.
9. The Harmonized Sales Tax (HST), applied in the three smaller Atlantic provinces as a joint federal/provincial VAT at rates of 7% and 8% respectively on the federal VAT base and administered by the federal government, is another model for the EU.
10. Cnossen (2001, p. 499f.) summarizes evidence from earlier studies and argues that the magnitude of cross border shopping is not irrelevant in border regions but very small in the national context.
11. This is one of the reasons why the Commission favoured a VAT rate harmonization across Europe, because then cross-border VAT crediting will only shift VAT revenue between member states with respect to aggregated trade imbalances with all other EU member countries, rather than with respect to VAT rate differentials and bilateral trade imbalances.

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