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A Destination VAT for CIS Trade

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Abstract

In all of the new countries formed after the dissolution of the Soviet Union, other than the Baltics, the value-added taxes (VATs) adopted were "hybrid" VATs that treat CIS trade differently from trade with the rest of the world. This paper inquires whether this is appropriate. The paper concludes that it would be better if all CIS countries applied the destination principle to CIS trade as well as to trade with the rest of the world. The paper addresses the economic, administrative and revenue allocation considerations underlying this decision.

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Contents

Summary

Following the dissolution of the Soviet Union, the new countries (other than the Baltics) adopted hybrid value-added taxes (VATs) that treat Commonwealth of Independent States (CIS) trade on the origin principle, under which goods are taxed in the country in which they are produced rather than in the country in which they are consumed, and external trade is taxed on the internationally standard destination principle. This paper concludes that it would be preferable to apply the destination principle to intra-CIS trade. Individual CIS countries, however, should be cautious in switching unilaterally from the origin to the destination principle.

The destination principle ensures that each country taxes its own domestic consumption and creates fewer potential distortions in the allocation of resources. The current hybrid VAT leads to trade deflection and to the reallocation of the tax base to countries that have trade surpluses with other CIS countries.

Administrative considerations favor a single regime for all cross-border trade to avoid the need for customs and tax officials to determine the origin or destination of goods crossing the border. Moreover, the destination regime is preferable to the origin regime, as the latter requires the valuation of both imports and exports. In the absence of effective border controls, either regime requires a strong audit program and a high degree of cooperation among countries.

Whether a change in the regime would lead to a significant reallocation of tax revenue away from certain countries and to others within the CIS depends upon the trade flows between the various CIS countries. The traditional view has been that Russia (as well as Turkmenistan) has had a large surplus, based on energy exports, and thus would suffer a revenue loss in a switch from the origin to destination basis. While this was apparently the case in 1993 and 1994, data suggest that the situation has been reversed during 1995.

I. Introduction

Following the dissolution of the Soviet Union, the new countries adopted value-added taxes (VATs) of general application. In part because the former Soviet Union was viewed as a common economic space, the new countries, other than the Baltic countries, (a group of countries hereinafter referred to as the "CIS countries") adopted "hybrid" VATs that treat CIS trade differently from non-CIS trade. In general, CIS trade is taxed according to the origin principle, under which goods are taxed in the country in which they are produced. Under this principle, CIS countries tax exports to other CIS countries, but not imports from CIS countries. In contrast, CIS countries generally tax trade with non-CIS countries according to the destination principle, under which goods are taxed in the country in which final consumption occurs. Thus imports from non-CIS countries are taxed and exports are zero-rated.

Not all CIS countries, however, have hybrid VATs as just described (see Table 1). 1/ For example, Tajikistan and Turkmenistan make no distinction between trade with CIS countries and with the rest of the world. Although they impose no VAT as such on imports, imports which enter into the production of taxable goods are effectively taxed at the manufacturing level as there is no credit for VAT on purchases. They also tax exports. The Kyrgyz Republic presently taxes exports to the CIS and does not tax CIS imports. It exempts, but does not zero-rate, exports to the rest of the world, and, like Tajikistan and Turkmenistan, apparently does not tax imports from outside the CIS.

Belarus exempts, but does not zero-rate, exports to countries (including CIS countries such as Ukraine) that exempt their exports to Belarus from VAT. 2/ Thus only the value added of the last production stage before export is freed of VAT. Ukraine is now on a full destination basis with all of the other CIS countries including Russia.

A "pure" origin system would isolate and tax the value added in each country in the production chain at the rate of the country producing the value added. In order to achieve this, the country importing the intermediate good must credit the VAT of the exporting country at the rate of the importing country (rather than the rate actually applied by the exporting country). If the exporting country rate is used, and is higher, the effect is to reduce the total VAT levied by the importing country by the amount of the import times the rate differential, under the credit/invoice method. If the margin method is used with respect to the import, however, the rate differential has no

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1/ See Summers and Sunley (1995).
2/ See Bird (1995).

Table 1. The VAT Rules For Cross-Border Trade in CIS Countries

Country	Standard VAT Rate (In percent)	Treatment of Exports		Treatment of Imports	
		To CIS	To Rest of World	From CIS	From Rest of World
Armenia	20	Taxed	Zero-rated	Credit VAT of exporting country	Taxed
Azerbaijan	20	Taxed	Zero-rated	Credit at standard rate	Taxed
Belarus	20	Taxed	Exempt	Taxed, except imports from Russia	Taxed
Georgia	20	Taxed	Zero-rated	Credit VAT of exporting country	Taxed
Kazakstan	20	Taxed	Zero-rated	Tax imports other than from Russia	Taxed
Kyrgyz Rep.	20	Taxed	Exempt	Credit at standard rate	Untaxed
Moldova	20	Taxed	Exempt	No tax on import and no credits	Taxed
Russia	20 + 1.5 "Special"	Taxed	Zero-rated	Generally credit at standard rate	Taxed
Tajikistan	20 + 3 "Special"	Taxed	Taxed	No tax on import and no credits	No tax on import and no credits
Turkmenistan	20	Taxed	Taxed	No tax on import and no credits	No tax on import and no credits
Ukraine	20	Zero-rated	Zero-rated	Taxed (inputs to production are not taxed at border, but at next stage)	Taxed
Uzbekistan	18	Taxed	Exempt	Credit VAT of exporting country	Taxed

effect and the value added is automatically isolated. 1/ Among the CIS countries, the treatment of imports from other CIS countries varies in that some countries exclude imports from the tax base by crediting the VAT paid in the exporting country even if higher than the VAT that would be paid in the importing country. Other countries allow a credit at their standard rate which may be higher or lower than the rate paid in the exporting country.

This paper addresses the question whether it is appropriate to apply the origin or destination principle to cross-border trade among the CIS countries. All other countries in the world that have value-added taxes impose them on a destination basis with all their trading partners. The paper concludes that it would be better if all CIS countries would apply the destination principle to CIS trade as well as to trade with the rest of the world. The destination principle would be preferable for all CIS trade even if some CIS countries have entered into (or will enter into) a customs union. Individual CIS countries, however, should be cautious in switching unilaterally from the origin to the destination principle for CIS trade. A unilateral switch by one country would likely lead to trade distortions and could lead to losses in tax revenue.

The next three sections address the economic and tax administration considerations that favor the destination principle for CIS trade, and issues raised by the entry of several countries into a customs union. A fourth section discusses the allocation of revenues among the CIS countries under the current mixed origin/destination system, as opposed to a pure destination system.

II. Economic Considerations

1. Choice between origin and destination methods in general

There is a strong economic case for countries adopting the destination principle. When countries wish to mobilize revenue from taxing consumption, it is logical to have domestic consumption as the tax base. A destination principle VAT guarantees the independence of countries in determining the rates at which they wish to tax domestic consumption. Under the destination principle, the allocation of world revenue from the tax is determined by two

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1/ The "margin method" is used in most of the CIS countries for the value-added taxation of retail trade, services, and in some cases wholesale trade. It is a form of modified subtractive method, in which the tax liability is calculated by applying the tax-inclusive rate to the gross margin on resale. This feature of the margin method thus dovetails nicely with the origin method, in a much simpler way than does the credit/invoice method. No explicit "credits" need be given with respect to tax paid in the exporting country. That tax, if any, is simply included in the cost of the goods purchased and resold when the margin is calculated. In this connection, however, it should be noted that the Fund has consistently advised the CIS countries to drop the use of the margin method for other reasons, and that some progress has been made in adopting this advice.

factors alone: the rate at which countries impose the VAT and the amount of their consumption, since exports are relieved of this tax and imports are subject to it.

The VAT, whether levied on the origin or destination principle, ideally should have a single rate and limited exemptions. In actual practice, the VAT in many countries falls short of this ideal. In this second best world, adoption of the origin principle results in price differences within the country for the same goods. This is because identical goods produced in two different countries and consumed in a third country may include different value-added tax burdens, which may in turn be different from that on domestic production of the same item. The origin principle therefore introduces production inefficiencies and implies some degree of positive or negative protection of domestic production for each country, depending upon its tax rate relative to its trading partners. Since these negative implications do not apply when the VAT is implemented according to the destination principle, 1/ economic reasoning points towards the destination principle when VATs are levied at different rates in different countries and with significant exemptions and multiple rates in the same country.

2. Equivalence of origin and destination methods with respect to allocation of real resources

The destination and origin principles can be said to be equivalent--in the sense that a switch from one regime to the other will not alter resource allocation--under certain restrictive conditions (that is, VAT applies uniformly to all goods and services and there is exchange rate or domestic price flexibility). 2/ Under these conditions, the exchange rate or the price levels (real wage) would adjust to reflect differences in tax rates, and each country would have full discretion over its tax rate without altering the allocation of resources relative to the other regime. The restrictive conditions for this equivalence are unrealistic, however. No VAT is truly general, and complete exchange rate flexibility does not exist.

Moreover, this theoretical equivalence between destination and origin principles is not directly applicable to the CIS because these analyses assume that all countries adopt the origin principle. 3/ Recent analyses of destination versus origin taxation within the EU do suggest that a type of mixed regime, known as a non-reciprocal restricted origin (NRRO) regime (described below), is equivalent--in the sense of no real effects on the allocation of resources--to all countries adopting the destination principle (assuming similar restrictive conditions as for the equivalence between origin and destination taxation). 4/ In contrast to the current rules of the CIS countries, however, under the NRRO regime all exports by countries

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1/ Under either system, exemptions and multiple rates will distort consumer choices in the country.

2/ See Smith (1993).

3/ As well as because it is unlikely that at present either the condition of truly flexible exchange rates or wage and prices exists in the CIS.

4/ See Lockwood, de Meza, and Myles (1995).

in the trading group adopting the system (to countries both within and outside the trading group) would be taxed and all imports (from countries within and outside the group) would be exempt. In other words, the trading group would be entirely on the origin system, and the rest of the world would remain entirely on the destination system.

If this approach were adopted by the CIS countries, exports from the CIS to non-CIS countries that tax on the basis of destination would be taxed in the exporting CIS country and taxed again in the importing country. Imports from non-CIS countries would be taxed in neither the exporting nor the importing country. Economic theory may suggest that wage or exchange rate adjustments can nullify any real effects upon resource allocation caused by alterations in the structure of taxation in the switch from the destination regime to the NRRO regime, but even if the necessary restrictive conditions held and this were true, this divergent treatment of imports and exports may be unpalatable politically as it would appear to discriminate against exports from the CIS and favor imports from non-CIS countries.

3. Distortion of resource allocation, trade deflection and reallocation of tax base under the hybrid CIS system

A hybrid, or "restricted origin" VAT, like that which applies the destination principle to non-CIS trade and the origin principle to CIS trade, cannot be said to be economically equivalent to the pure origin, the pure destination, or the NRRO principle. It has been demonstrated that the adoption of a restricted origin regime will distort the allocation of resources unless all countries involved adopt a uniform tax rate, even if trade is balanced bilaterally among all the countries. 1/

To tax CIS trade under the origin principle and non-CIS trade under the destination principle opens up the possibility of trade deflection. An enterprise in a high-tax CIS country would have an incentive to export to a low-tax CIS country through a third country outside the CIS. The export to the third country would be zero-rated as would the re-export to the CIS country of final consumption. The importing CIS country would impose its lower VAT rate on the imported good, since it last came from a third country. Thus, the final tax burden would be the lower one of the importing CIS country rather than the higher one of the producing CIS country. The possibility of trade deflection complicates tax administration in that in order to avoid it, Customs must determine the origin of goods imported in the country and the destination of goods exported from the country. Moreover, if VAT rates diverge, exempt entities, particularly small businesses below the turnover threshold and government units, would have an incentive to buy in those CIS countries where VAT rates are lowest.

1/ A number of studies conclude that restricted origin regimes--under which exports to countries outside the customs union are zero-rated and imports from outside the customs union are taxed in the importing country--are not equivalent to the destination regime. See, for example, Berglas (1981).

Even if all CIS countries adopt the same tax rate, the hybrid VAT which applies the origin principle to CIS trade and the destination principle to trade with the rest of the world would cause a reallocation of the tax base, away from CIS countries that are net exporters to the world outside the CIS. This would be true even if total trade were balanced in each country, except under the very restrictive condition that each member country's trade were balanced with the rest of the world.

To illustrate this, consider two CIS countries, A and B. Country A imports 20 units of goods from Country B and exports 20 units to the rest of the world. Country B imports 20 units of goods from the rest of the world and exports 20 units of goods to Country A. Both countries have balanced trade overall, but Country A is a net exporter to the rest of the world while Country B is a net importer. If rest of the world trade is taxed under the destination principle and CIS trade under the origin principle, Country A has a VAT tax base of zero from the trade sector since it does not tax its imports from Country B and zero rates its exports to the rest of the world. In contrast, Country B has a VAT tax base of 40 from the trade sector since it taxes both its exports to Country B and its imports from the rest of the world. The result of all this is that Country A, the net exporter to the rest of the world, "exports" part of its tax base to Country B.

In the case of the CIS countries, the implication of the above is that the origin basis weakens the fiscal position of any country that runs a trade deficit vis-a-vis another CIS country because it imports raw materials to produce manufactured goods that are in turn exported to non-CIS countries. Belarus is an example of a CIS country that is a net exporter to the rest of the world. Belarus imports raw materials from Russia and exports goods to the rest of the world. To limit its loss of tax base, Belarus exempts, rather than zero-rates, exports to the rest of the world. Zero-rating would, in effect, result in refunding taxes that were paid to Russia on the imported raw materials.

In summary, the destination principle ensures that each country taxes its own domestic consumption. Distortions due to different tax rates and exemptions are in consumer or product markets and not in producer or factor markets. Finally, the hybrid VAT, with the destination principle for non-CIS trade and the origin principle for CIS trade, leads to trade deflection and the reallocation of the tax base to countries that have trade surpluses in their trade with other CIS countries.

III. Tax Administration Considerations

1. Evasion under the hybrid regime

A hybrid VAT with one set of rules for trade with CIS countries and a different set of rules for trade with non-CIS countries creates significant problems in administering the VAT and opportunities for tax evasion. Customs must determine whether imports are from a CIS country or from a non-CIS country. Problems arise in the case of transit goods and but also in the case of shipments that have been broken down into smaller lots and goods that have been subject to further processing or manufacturing. For example, Germany may export goods through Russia to Georgia. Georgian customs must then determine whether these goods were produced in a CIS country or a non-CIS country. This may be easy in the case of German automobiles but can be much more difficult in the case of basic commodities. Moreover, Germany could ship in bulk to Russia where the shipment is broken down and sent to the various Central Asian republics. The customs official must determine whether these goods are from Germany or from Russia. How much repackaging, processing, or further manufacturing is needed to transform German goods into Russian goods? Similar problems arise on export. As exports to non-CIS countries are zero-rated, Georgian taxpayers exporting to Russia may invoice the goods to Germany. While in transit across Russia, they disappear.

2. <u>Administrative choice between destination and origin</u>

The work of tax administration in ensuring VAT compliance could be simplified and the loss of revenue minimized if the CIS countries adopted either the destination or the origin principle for all trade. The question then becomes whether tax administration considerations favor destination or the origin principle.

The administrative steps necessary to achieve a pure destination based credit-invoice VAT are relatively straight-forward as long as effective border controls exist. With physical checks at the border, the exporting country can verify that goods which are claimed as zero-rated actually leave the country. And the importing country can impose tax at customs when the goods physically enter the country, making it much harder for taxpayers to avoid the VAT on imported goods. If border controls do not exist or are inadequate, it is indeed much more difficult to administer a destination principle VAT. To enforce the VAT on cross-border trade will require strong audit programs to track payment orders and a high degree of cooperation among the CIS countries.

It is therefore frequently suggested that, due to the lack of adequate border controls, the weakness of the audit program for VAT in the CIS states, and the likely low degree of cooperation among the CIS states in enforcing their VAT laws CIS trade should be conducted under the origin principle. However, under the origin principle in such circumstances administration is at least equally, and probably more, difficult than under the destination method. It is difficult to verify that goods were imported absent border controls, which is necessary under the origin system. That a taxpayer can present an invoice from a company in the exporting country is insufficient to verify importation given how easy it is to print false invoices. Tax officials can match payment orders with invoices, but to verify the import, the tax authority of the importing country will need the cooperation of the tax authority in the exporting country to confirm that goods were indeed exported by a taxpayer registered for VAT.

Since the dissolution of the Soviet Union, the various CIS states have been establishing customs posts at border crossing points. Given the inherited infrastructure of highways and railroads, trade routes between CIS countries are fairly restricted. Control of the major border crossings should capture most of the trade. It is not clear, however, that CIS countries have gotten control their borders. This will require a major investment in additional infrastructure--closing off roads, limiting commercial shipments to designated border crossing points, constructing holding facilities, and the like.

Further, there is a weighty administrative argument in favor of the destination principle, assuming countries impose a credit method VAT. Both the destination and origin regimes require verification of the quantity of goods imported and exported, and the origin regime requires valuation of both imports and exports. In contrast, the destination regime does not require the valuation of exports or the precise valuation of imports. Since exports would leave a country free of VAT, all that is required is that prior stage tax be refunded to the exporter. As regards imports, precise valuation of imports generally is not required: any shortfall of tax due to undervaluation of imports (except in the case of imports for final consumption) is made up at the next taxable stage when the credit for tax on imports is correspondingly smaller. 1/

In contrast, under the origin principle exports must be valued in order to ensure that all domestic value added is taxed, and this can be particularly difficult when there are related party sales or false invoices. Similarly, under the origin principle imports must be excluded from the tax base to ensure that they are not taxed again. This requires that imports be valued.

In summary, administrative considerations favor having one regime--either the destination or the origin regime--for all cross-border trade. With one regime, customs and tax officials will not have to determine the origin or destination of goods crossing the border. Moreover, administrative considerations favor the destination regime as the origin regime requires the valuation of both imports and exports. In any case, absent effective border controls, both regimes require a strong audit program and a high degree of cooperation among countries.

IV. Choice Under a Customs Union

A customs union has been established between Russia, Belarus, and Kazakstan, with other states likely to join in the future (e.g., the Kyrgyz Republic). The question arises whether this customs union should adopt the origin or destination principle for trade among the members.

Members of a customs union agree to align their customs duties on external trade to the common external tariff and to abolish customs duties on trade among the members as well as quantitative restrictions, taxes and fees having equivalent effect. They may agree to abolish border controls for internal trade, as was done in the European Union at the beginning of

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1/ The shortfall of tax due to undervaluation of imports is not made up at the next stage if retailers import the goods and they are taxed under the gross margin method, which is not self-correcting as is the credit method.

1993, 1/ and to harmonize their domestic commodity taxes (that is, to achieve some uniformity in the base and rates) in order to limit trade distortions within the Union. For example, member states in the European Union in 1992 adopted minimum excise rates for the major petroleum products. Moreover, the sixth VAT directive, adopted in 1977, requires broad harmonization of the VAT base.

The standard international practice is for trade within a customs union to be based on the destination principle. The economic and tax administration arguments for the destination principle explained in parts I and II above apply for trade within a customs union, as well as for that between totally independent countries. Further, it is important to note that the example of the European Union cannot at present serve as a model for an origin based CIS customs union--first, the CIS countries do not have the administrative capacity of the EU, and second, the EU still operates on a destination basis.

The European Union applies the destination principle on what is sometimes referred to as a deferred payment method. Exports to registered traders are zero-rated, as under the standard (with border) destination method, but documentary evidence of export, rather than border clearance, is necessary for the zero-rating of the export. Imports from another EU country are not charged with VAT at the border. Instead, importers pay VAT on the imports when they file their normal VAT return and in turn claim a credit for that VAT against the VAT charged on their sales.

There is discussion within the European Union, of moving to a "clearing house" mechanism if, as now expected, the EU retains the destination basis after 1996. 2/ Under this mechanism, the exporting country would levy its VAT on the export, the same as under the origin principle, and the importing country would allow a credit for the full VAT paid to the exporting country. This method thus initially resembles the origin method (except for the rate at which the credit on imports is given). However, the clearing house would reallocate revenues between countries, based on invoices or macro statistics, so as to provide an outcome reasonably close to that of the destination system, with value added in effect taxed in the country of consumption rather than production--the reallocation being from the net exporting countries to the net importing countries.

1/ It now appears that the internal CIS customs union will not necessarily entail the elimination of customs posts on the borders between all of the members, although it may. Border controls between Russia and Belarus have apparently been eliminated, and those between Kazakstan and Russia are supposed to be eliminated under the terms of a recent Russian decree.

2/ There also is some discussion within the EU of moving to the origin principle, but most observers believe this is unlikely as a strong preference within the EU remains for the destination principle. The most likely outcome of the debate within the EU is that it will retain the deferred payment mechanism and not move to the clearing house mechanism, nor, certainly, to the origin principle.

In summary, with regard to internal CIS trade among members of the customs union, the general arguments in favor of the destination basis continue to hold, whether or not border controls between the members are eliminated. The economic principles continue to apply, and administrative considerations favor the destination method even without effective border controls. 1/

V. Revenue Allocation Effects

Whether the use of the origin system rather than the destination system leads to a significant reallocation of tax revenue away from certain countries and to others within the CIS is an empirical question that hinges on the trade flows of the various CIS countries. Unfortunately, without functioning borders, statistics on trade among CIS countries are likely to be quite unreliable. Under the origin basis, countries with a deficit reallocate VAT revenue to countries with a surplus, and conversely under the destination basis. To the extent that there is a direct relationship between the trade deficit and the external current account deficit, and in turn between the external current account and fiscal deficits, there is an economic argument for the destination basis since, by being more favorable to the fiscal position of countries with an external deficit it would tend to alleviate external imbalances between CIS countries.

Prior to the break up of the Soviet Union, it is estimated that certain republics (Azerbaijan, Belarus, Georgia, Russia, and Ukraine) had trade surpluses within the USSR while Kazakstan and the Central Asian republics had trade deficits on the order of 12 percent of their GDP. Russia's trade surplus with the rest of the USSR was only about 0.5 percent of its GDP. 2/ These data may be misleading in that the prices applied in interrepublican trade probably were least favorable to Russia, Kazakstan and Uzbekistan.

There is great uncertainty on the empirical question of which countries of the CIS have run a surplus or deficit with the others in the past year, and even more on the amounts. The traditional view has been that Russia (as well as Turkmenistan) has had a large surplus, based on energy exports. While this was apparently the case in 1993 and 1994, data suggest that the situation has been reversed during 1995. First, Russian energy exports to other CIS countries have fallen substantially (at the same time as these exports increased to the rest of the world); and second, Russian imports of manufactured goods from the other countries of the CIS have increased

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1/ A CIS customs union does raise questions regarding the handling of trade between member countries and the outside world. For example, who will be responsible for the collection of import tariffs on goods entering the customs union from Europe, but destined to be transported to another member country? And at what point should such tariffs be collected? None of these questions, however, change the conclusion that for internal trade, the destination basis is preferable.

2/ See Aslund (1995) .

significantly in the same period. This pattern may well continue, although it is very hard to project. 1/

VI. Concluding Remarks

Both economic and tax administration considerations suggest that the CIS should adopt the destination principle for cross-border trade among the CIS countries. If all countries adopt the destination principle, each country can determine the rate at which it wishes to tax domestic consumption since exports are relieved of this tax and imports are not. Some CIS countries have entered into a customs union and others may also join. This paper suggests that it would be better for the customs union to adopt the destination principle for internal trade. This is the standard international practice, including for trade within the European Union.

It would be best if all CIS countries switched at the same time to the destination principle for CIS trade, but some CIS countries may consider unilaterally adopting the destination principle. A unilateral switch to the destination principle would likely lead to a redirection of trade that may not be based on comparative advantage. If other CIS countries remain on the origin method for CIS trade, exports from the switching country to another CIS country would be taxed in neither country while imports from another CIS country to the switching country would be taxed in both countries. Although adjustments in the exchange rate or prices may offset a portion of the potential trade distortion, a unilateral switch to the destination principle would lead to an increase in trade tensions. The switching country will come under pressure not to tax imports from other CIS countries. If the switching country yields to this pressure, there would be a significant revenue loss, as the switching country would then tax neither imports from CIS countries or exports to them.

1/ Appendix I sets out an analysis of the estimated revenue shifts were the CIS to universally adopt the destination principle, based on trade data for 1993, 1994 and 1995, and the currently applicable VAT laws in the various countries. As indicated, the trade data are not entirely reliable, nor, indeed, is the information on the exact manner in which the laws may be applied.

Estimates of the Revenue Allocation Effects of a Switch from Origin to Destination by all the CIS Countries, Using 1993-1995 Data

Fund data for 1993 indicate that Russia at that time had a significant trade surplus, of over $5 billion, with respect to the other CIS countries taken as a whole. 1/ All CIS countries other than Uzbekistan (based upon cotton exports) had net trade deficits with Russia. If energy exports by Russia were left out of account, however, its surplus would have become a deficit, largely due to its agricultural deficit with Ukraine. Trade flows were dominated by those to and from the five major trading partners: Russia, Ukraine, Kazakstan, Belarus and Uzbekistan. The calculations in Tables 1, 2 and 3 use the VAT laws as of end-1995, including rates of 20 percent for all countries other than Uzbekistan, 2/ and compare the revenue allocation from this situation with that which would result assuming that all the CIS countries adopted true destination systems. This is a static analysis; no changes in trade flows, exchange rates, or prices as a result of the shift from origin to destination are presupposed. 3/

Data for trade between each CIS country and Russia is available for 1994 and the first three quarters of 1995 based on State Customs Committee information. Revenue shift estimates using this data are presented in Table 4. No sectoral data was available by country for this period. A comparison of the aggregate SCC data for all other CIS countries' trade with Russia with data from Goskomstadt and the Central Bank of Russia/IMF staff estimates is made for 1994 and 1995 in Table 5. These tables demonstrate that the revenue allocation from a change to the destination basis became more favorable to Russia over the period, based on the shift of trade flows. Table 6 presents an estimate of the change in VAT receipts from Russian exports and imports by product sector for 1994 and the first three quarters of 1995, based on SCC data on aggregate trade with the rest of the CIS.

1/ The other large surplus country was Turkmenistan, based upon its energy exports to the non-Russian CIS countries.

2/ As of end-1995, the 1-1/2 percent surcharge was to be eliminated from the Russian VAT. The 1996 budget included a rise in the base rate from 20 percent to 21 percent, but as of mid-February, 1996, this had not been implemented. The revenue estimates throughout this Appendix are therefore based on a 20 percent rate in Russia as well as the other countries.

3/ If under the origin system the exporting country charges a 20 percent VAT and under the destination system the importing country charges a 20 percent VAT, a switch from the origin to the destination method should have little effect on trade flows as the net-of-tax price received by the exporter and the tax inclusive price paid by the importer are unchanged.

Table 1. Revenue Estimates for Gains and Losses on Trade Between the CIS Countries and Russia on Switch to Universal Destination Principle vs. Present Laws
(in millions of U.S. dollars)
(using 1993 trade data)

Country	Oil and Gas	Coal and Fuel	Raw Material	Agric. and Food	Other	TOTAL
Armenia						11.2
Azerbaijan	2.2		10.8	1.2	-5.2	8.8
Belarus	249.8		-20.6	4.0	-172.6	60.6
Georgia						2.8
Kazakstan	94.0	-46.2	2.8	1.8	122.2	174.4
Kyrgyz Rep.	16.0	-0.4	7.0	-0.8		22.0
Moldova						9.0
Tajikistan						-14.5
Turkmenistan						-20.8
Ukraine 1/						0
Uzbekistan	58.3	-2.4	-111.6	9.0	4.8	-41.9
TOTAL NET CHANGE, trade between each of the CIS countries and Russia						211.6
Russian Federation (sectoral breakdown includes Russian trade with the Baltics)	-1,102	16	189.6	126.8	-230.6	-1,000
NET CHANGE on Russian Federation total trade with other CIS countries (excluding the Baltics' trade with Russia)						-1,069

Source: Staff Estimates

1/ Ukraine currently has a full destination system, so that no change in revenue allocation should result.

Table 2. Revenue Estimates for Gains and Losses on Trade Among the CIS Countries (excluding trade with Russia and including trade between each of the CIS countries and the Baltics) on Switch to Universal Destination Principle vs. Present Laws
(in millions of U.S. dollars)
(using 1993 trade data)

Country	Oil and Gas	Coal and Fuel	Raw Material	Agric. and Food	Other	TOTAL
Armenia						-3.4
Azerbaijan	1.6	-1.8	-4.2	-6.0	-8.2	-18.4
Belarus	-11.8	7.2	27.4	15.2	-82.4	-44.4
Georgia						22.0
Kazakstan						0
Kyrgyz Rep.	15.0	-2.6	-1.0	-4.4	-11.8	-4.8
Moldova						19.8
Tajikistan						-16.5
Turkmenistan						-302.8
Ukraine						0
Uzbekistan	-72.0	-9.2	-4.0	39.0	119.5	73.3
TOTAL NET CHANGE, trade among the CIS countries other than Russia 1/						-275.2

Source: Staff Estimates

1/ The fact that the net revenue allocation shift among the CIS countries is not zero results in part from the fact that trade with the Baltics is included in the data base, but cannot be identified; in part from the fact that the laws are not now symmetric; and in part from statistical discrepancies.

Table 3. Revenue Estimates for Gains and Losses on Trade Among the CIS Countries (including trade flows with the Baltics and Russia) on Switch to Universal Destination Principle vs. Present Laws--Summation of Tables 1 and 2 (in millions of U.S. dollars) (using 1993 trade data)

Country	Oil and Gas	Coal and Fuel	Raw Material	Agric. and Food	Other	TOTAL
Armenia						7.8
Azerbaijan	3.8	-1.8	6.6	-4.8	-13.4	-9.6
Belarus	238.0	7.2	6.8	19.2	-255.0	16.2
Georgia						24.8
Kazakstan	94.0	-46.2	2.8	1.8	122.2	174.4
Kyrgyz Rep.	31.0	-3.0	6.0	-5.2	-11.8	17.2
Moldova						28.8
Tajikistan						-31.0
Turkmenistan						-323.6
Ukraine						0
Uzbekistan	-13.7	-11.6	-115.6	48.0	124.3	31.4
TOTAL NET CHANGE, non-Russian CIS countries including trade among themselves and with Russia						-63.6
TOTAL NET CHANGE, Russian Federation trade with the other CIS countries						-1,069

Source: Staff Estimates.

Table 4. Revenue Estimates for Gains and Losses on Trade Between the CIS Countries and Russia on Switch to Universal Destination Principle vs. Present Laws
(in millions of U.S. dollars)
(using 1994 and 1995 State Customs Committee Data)

Country 1/	1994		1995, Qs I-III	
Armenia	20.0	[-20]	6.6	[-6.6]
Azerbaijan	6.6	[-6.6]	-4.0	[4]
Belarus	203.2	[-203.2]	139.2	[-139.2]
Georgia	0.8	[-0.8]	-1.0	[1]
Kazakstan	37.4	[-37.4]	-13.0	[13]
Kyrgyz Rep.	1.0	[-1]	-1.4	[1.4]
Moldova	13.4	[-13.4]	-23.4	[23.4]
Tajikistan	-18.2	[-10]	-26.0	[-2.4]
Turkmenistan	-12.2	[-10]	-16.6	[3.2]
Ukraine 2/	0	[-461.4]	0	[-139]
Uzbekistan	-19.9	[3.2]	-36.2	[25]
NET CHANGE, trade in aggregate for the CIS countries	232.1		24.2	
CHANGE for Russia	-760.6		-216.2	

Source: Staff Estimates and State Customs Committee Data

1/ Figures are shown from the viewpoint of the country named. For example, a positive figure of 200 for a country indicates that the shift to destination would add 200 million dollars to its annual revenues based upon its trade with Russia only. However, this figure cannot be read to mean that Russia would correspondingly lose 200 million dollars as a result. Figures for Russia, relative to trade with each country, are given in parentheses next to the primary figure. Figures differ as a result of presently asymmetric legal structures. The aggregate figure for Russia versus all the other CIS countries is given at the end of the table.

2/ Ukraine currently has a full destination system, so that no change in revenue allocation should result.

Table 5. Reallocation of Russian Revenues Based on Aggregate Trade with the Other CIS Countries, 1994 and 1995, Comparing Data from the SCC, Goskomstadt and the Central Bank 1/ (millions of U.S. dollars)

Data Source	1994	1995, Qs I-III	1995, Q IV	1995, year
State Customs Committee	-762.8	-200	100	-99.4
Goskomstadt	-242.0	322	252	573.8
Central Bank/IMF Staff	-464.6	-88	158	70.2

Source: Staff Estimates and State Customs Committee, Goskomstadt and Central Bank Data

1/ Differences reflect different bases used, not merely statistical discrepancies.

Table 6. Revenue Shifts for Selected Russian Imports and Exports by Sector, Based on Aggregate Trade with the Other CIS Countries, 1994 and 1995 SCC Data
(millions of U.S. dollars)

Russian Exports	1994	1995, Qs I-III
Oil and oil products	-575	-340
Natural Gas	-763	-517
Other	-1,487	-1,141
Russian Imports		
Food, Beverages and Tobacco	429	417
Metals	284	278
Machines and Equipment	577	334
Other	773	770

Source: Staff Estimates and State Customs Committee Data

1993 Tables

Taking the trade with Russia into account, based on 1993 trade flows the other CIS countries in the aggregate would have lost only about $64 million relative to the revenue allocation from the VAT based upon current law if all the countries adopted the destination principle (see Table 3). The winners and losers would have changed considerably, however. And, relative to Russia, the other countries as a group stood to gain far less than Russia would have lost on 1993 trade (see Table 2)--on the order of about 1:5. This discrepancy can be largely explained by the fact that the other countries are not all on a purely origin basis now with respect to Russia. In particular, the fact that Ukraine has already adopted a destination basis while Russia has not explains over 80 percent of this difference. Leaving out its trade with Ukraine, Russia's loss from a switch to destination would have been about $360 million dollars, versus over $1 billion including trade with Ukraine. In sum, if Russia's trade with Ukraine is left out of account, the loss by Russia on 1993 data would have been approximately 1.7 times the other countries' gains--$360 million versus $212 million.

Otherwise, the Russian net loss based on the 1993 trade situation, with respect to countries other than Ukraine, is roughly explained by: (i) loss of about $180 million on energy exports; (ii) loss of $15 million on net agricultural export surplus; (iii) loss of about $241 million on net exports of finished goods; (iv) gain of $124 million on raw materials; and (v) loss of about $20 million on coal and other fuels. Of these, virtually all the net raw material gain is explained by Uzbek cotton imports, and half of the net loss on energy exports would have been with respect to Kazakstan.

The overwhelmingly main revenue shift on trade among the other CIS countries, excluding Russia, would have been a loss of over $300 million to Turkmenistan, presumably largely on its 1993 energy exports (although the sectoral breakdown is not available). 1/

1994 and 1995 Tables

As Table 4 shows, the truly significant revenue shifts for Russia are based upon its trade with Belarus and Ukraine in this period. Ukraine is currently on the destination basis with respect to Russia, and thus, in this static analysis, the universal shift would have no impact on Ukraine's revenue from Russian trade. The anticipated revenue loss to Russia from the shift has been steadily declining, as can be seen in more detail in Table 5.

Methodological Notes

Table 1 is based on the Fund trade flow data between each of the CIS countries and Russia for 1993. The Russian sectoral figures include Russian trade with the Baltics, as information was not available to permit backing

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1/ Turkmenistan may be able to increase its mineral resources tax on natural gas and maintain its revenue base.

the Baltic trade out of these numbers. However, a total figure for Russian trade versus the CIS countries is given excluding Baltic trade, in addition to the sectoral figures. The net difference is relatively minor.

Table 2 is based upon Fund trade data for the CIS as a whole, including trade flows between the Baltic countries and each of the CIS countries, with Russian imports and exports backed out. Information was not available to permit backing out trade between the CIS countries and the Baltic countries.

Table 3 simply sums Tables 1 and 2.

Basic methodology: "pure" origin switching to destination. The calculations in the Tables assume that all goods are subject to the tax (unless otherwise noted). Thus, the revenue impact of a switch from the origin to destination method is calculated by multiplying the trade surplus (deficit) by the country's tax rate, to derive the revenue loss (gain). A "pure" origin system would isolate and tax the value added in each country in the production chain at the rate of the country producing the value added. In order to achieve this, the country importing the intermediate good must credit the VAT of the exporting country at the rate of the importing country (rather than the rate actually applied by the exporting country). If the exporting country rate is used, and is higher, the effect is to reduce the total VAT levied by the importing country by the amount of the import times the rate differential, under the credit/invoice method. If the margin method is used with respect to the import, however, the rate differential has no effect and the value added is automatically isolated. In the instant analysis, this is an issue only for Uzbekistan (the tax rate in which is 18 percent). All of the other countries (with the exception of Tajikistan, which does not have this issue) have a rate of 20 percent at present, other than Russia, which adds the 1.5 percent special tax. However, as the special tax is to be eliminated, the Russian rate has been treated as 20 percent.

Specific country issues

(i) Belarus: The Belarussian VAT has several idiosyncratic features. It is based upon the margin method at all stages of production (with the exception of imports which are resold); exports to countries for non-hard currency (i.e., the CIS) are subject to VAT, and other exports are not zero-rated but are exempted; imports are subject to VAT when resold by the importer, regardless of origin (other than imports deemed "in short supply"), and intermediate inputs imported by the user are likewise not subject to VAT on import but the full cost of the input (presumably including any VAT charged by the exporting CIS country) can be deducted in calculating the margin subject to VAT. Imports (which are not on the short supply list) for resale by the importer are taxed on a gross receipts (not margin) basis, and thus in effect the tax for this is a destination basis. Intermediate inputs which are imported are in effect on an origin basis now due to the calculation of the gross margin. Items on the short supply list are taxed on an origin basis even if resold, since they are exempt on import and the resale.

The revenue figures have been estimated by assuming that all of the first four categories were intermediate goods imported by the producers, thus on the origin basis, and that "other" consisted of final goods which were imported for resale, and thus is already on the destination basis, so that there will be no revenue change resulting from this category. However, to the extent that the intermediate goods are imported and resold to domestic producers by middlemen, this will be incorrect, and some of the first four categories should already be on the destination basis as well. (Of course, the incentive now is to have producers import such goods directly to avoid the Belarussian VAT.) Further, the losses from switching to a destination basis for exports from the origin basis are overstated (therefore the revenue gain is understated), because the calculation assumes that the goods will be zero-rated. At present, exports are exempt, not zero-rated. This may be partly related to the difficulty inherent in zero-rating under the subtraction method, relative to the credit-invoice method. It is certainly related to the authorities perception that on goods imported from Russia (subject to the Russian VAT), incorporated into production and exported outside the CIS, zero-rating would entail the refunding of VAT paid to Russia. However, it is impossible to estimate the degree of difference between the two without knowing the percentage of total value-added in all exports which is added at the final stage before export (the only part that will be untaxed under an exemption on a switch to destination).

This analysis treats oil imports by Belarus as being on the origin basis, on the theory that they are intermediate goods. Thus the revenue gain which would arise from taxing them on a destination basis is correctly shown in the tables. However, at present, oil is treated as an "imported good in short supply." If oil were for this reason exempted from import VAT after a destination regime were adopted, the revenue gains to Belarus from the switch in regimes would be reduced by up to $238 million based on 1993 data (the exact amount depending upon the breakdown between oil and gas in that category). This would change the total net gain on trade with Russia and the other countries from a gain of $16.2 million to a loss of up to $222 million, due to the large losses which would be incurred by zero-rating the export of final goods, in which Belarus has a large trade surplus with the CIS.

(ii) Kazakstan: Kazakstan is already on the destination basis with respect to all the countries other than Russia. The only changes therefore have been calculated with respect to trade with Russia. The Russia numbers assume that a credit at the standard rate is given for intermediate imports from Russia under the origin method.

(iii) Kyrgyz Republic: The Kyrgyz Republic is still on the origin method at this time.

(iv) Russia: Several issues arise with respect to Russia, but it has not been possible to quantify their impact. Russia now imposes VAT on exports to the CIS of goods which are exempt when sold domestically. Thus, no correction to the present export base is required for specifically exempt goods. With regard to imports, a long list of imported "technical items" are presently exempt. However, it is unlikely that most of these come from within the CIS. Finally, certain foodstuffs are subject to taxation at 10 percent, but the data to determine the revenue impact of this on imports from the CIS are not available either.

(v) Tajikistan: Taxes exports now. Does not tax imports at the time of importation. However, under the credit method, the value of imported intermediate inputs would be taxed at the next stage of production, as no credit is given with respect to the value of the imported good. This, in effect, is the destination method operated by the deferred payment mechanism. Where the margin method is used, however, the imported value added will not be taxed at the next stage. Thus, the revenue loss figures given in the tables, which assume that the tax on exports would be lost but that there would be no change with respect to imports relative to the present situation, would be overstated (i.e., the loss would be less), by the extent that imports are presently subject to the margin method, rather than the credit/invoice method. Such "gross margin imports" are not effectively on the destination method now, and switching over would add revenue from those items. However, no breakdowns by category are available for Tajikistan, so this cannot be calculated.

(vi) Turkmenistan: The Turkmen regime is the same as that of Tajikistan.

(vii) Ukraine: Ukraine is already on the destination basis (except with respect to the import of goods for "personal consumption.")

(viii) Uzbekistan: Uzbekistan has an 18 percent rate, versus the 20 percent rate everywhere else. Since the credit for imports under the credit invoice method is given at the exporter's rate, the net effect of current law is to produce a negative 2 percent tax on the value imported, rather than zero. This does not apply to goods subject to the gross margin method, so has not been applied to the "other" category (although this would be a very rough estimate of the effect, at best). This has been taken into account in comparing present revenue to the destination method.

Two major issues arise with respect to Uzbekistan: (i) agricultural produce is exempt. Revenue gains from imported agricultural products (and food--to the extent food is not exempt the following change would be reduced) would be $48 million, based on 1993 data, and net total revenue gain from switching methods would be $31.4 million. If agriculture continued to be exempt, the net revenue change figure would become a loss of $16.6 million; and (ii) cotton, assuming for this analysis that all of the raw materials category is cotton. At present, roughly 80 percent of cotton exports are acquired for export by the government and these are not subject to the VAT now. If it is assumed that 80 percent of the exported raw materials to the CIS now are not subject to VAT, the loss on switching to destination is reduced from $115.6 million to $23 million. This changes the total gain of $31.4 million to a gain of $124 million, using 1993 data.

References

Aslund, Anders, 1995, How Russia Became a Market Economy, Washington, D.C., Brookings Institution.

Bird, Richard, 1995, "Indirect Taxes in Belarus: VAT by Subtraction," Tax Notes International, vol. 11, no. 9 (August).

Berglas, Eitan, 1981, "Harmonization of Commodity taxes: Destination, Origin and Restricted Origin Principles," Journal of Public Economics, vol. 16, no. 1.

Lockwood, Ben, David de Meza, and Gareth Myles, 1995, "On the European Union VAT Proposals: The Superiority of Origin over Destination Taxation," Fiscal Studies, vol. 16, no. 1.

Smith, Stephen, 1993, " 'Subsidiarity' and the Co-Ordination of Indirect Taxes in the European Community", Oxford Review of Economic Policy, vol. 9, no. 1.

Summers, Victoria P., and Emil M. Sunley, 1995, "An Analysis of Value Added Taxes in Russia and Other Countries of the Former Soviet Union," Tax Notes International, vol. 10, no. 25 (June).