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SYMMETRIC VAT: COST-BENEFIT ANALYSIS

This analytical note provides cost-benefit analysis of introduction of the proposed Symmetric VAT instead of the standard VAT. A comparison of the gains and losses resulting from a shift from the standard VAT to a Symmetric VAT is based on a comparison of the gains and losses of a move to a retail sales tax. Such comparison is based on domestic administrative capacity, transition costs and international acceptability (within the European Union in particular).

1. The Proposal.

The proposal for a symmetric VAT to contain three elements:

- a. Tax will not be imposed (or collected) on supplies of taxable goods and services made by a taxpayer to another taxpayer. Such supplies will be effectively exempt from indirect tax.
- b. Tax will be paid by the purchaser if that purchaser is a supplier of goods and services but that purchaser is not registered for the symmetric VAT.
- c. Tax will be paid on goods and services going into private domestic consumption. The seller will charge VAT to the customer and pass on the VAT collected to the government.
- d. Exports would be zero rated (or effectively exempt).

There is also a proposal to reduce the VAT rate but this decrease has nothing to do with the structure of the proposed VAT. In addition, no justification is offered, or revenue estimates presented, in support of the rate reduction.

2. Analysis.

a. The Symmetric VAT is a Retail Sales Tax

The Symmetric VAT (S-VAT) is equivalent to the retail sales tax employed by states in the United States. To see this equivalence, consider Tables 1 and 2. Table 1 is based on the examples presented in support of the S-VAT and is an illustration of the standard VAT used in Ukraine and throughout the world. It is assumed that the standard invoice – credit system is used in computing the VAT.¹ Table 2 is an illustration of the retail sales tax employed by state governments in the United States, among other places. The initial point in the chain of value added can be either an import or the production of some good or service using primary inputs (capital and labor). The chain then continues to mining, manufacturing, light industry, trade and final consumption.

Tax is collected at each point in the chain of value added under the standard VAT. That is, by taking the difference between VAT collected on sales from VAT paid on purchases, the taxpayer is effectively sending the government tax revenues equal to the tax rate times net value added at that stage of production. For instance, the mining sector sells goods and services of 100 and buys goods and services of 65. Primary production factors (capital and labor) are used to produce the difference in the product sold from the products purchased for a net value added of 35. Under an invoice credit system, the taxpayer collects 20 from purchasers and pays 13 on his purchases. The taxpayer sends the difference ($20 - 13 = 7$) to the government. This process continues until products destined for final consumption are sold in the private sector. The retailer sells for 350 and charges the consumer 70 in VAT, making the VAT inclusive price equal to 420. It is also the case that summation of the VAT payments sent to the Government during the entire production process is equal to 70.

Now consider the retail sales tax illustrated in Table 2. It is assumed that all the producers in the chain of value added are registered taxpayers. These producers are members of the “ring” so that no tax will be collected by registered producers when sales are between members of the ring take place. Accordingly, tax is not collected either at the time of importation (or of purchase of the initial good or service) or on any transaction throughout the production process. Consumers are not members of the ring and thus sales tax is imposed at the time goods and services go into final consumption. The consumer is charged 350 for the good or service and 70 in VAT for a VAT inclusive price of 420. The government gets the full 70 at the time of final consumption but it should be clear that the tax, production costs and value added are not affected by either the sales tax or the VAT. In effect, the VAT and sales tax (or S-VAT) are equivalent in theory. In addition, Table 2 below is equivalent to Figure 1 in the S-VAT proposal. That is, the S-VAT is a retail sales tax.

Finally, note that S-VAT analysis for exports does not go beyond a question. Exports under a retail sales tax are exempt and there is no need for refunds as long as all transactions in the chain of value added are with registered taxpayers².

b. Gains and Losses from the Transition

Given the equivalence between the S-VAT and the retail sales tax, a comparison of the benefits of the S-VAT and the standard VAT amounts to a comparison between the retail sales tax and the invoice–credit system VAT.

Some of the benefits of the retail sales tax noted in the proposal are obvious, in particular the lack of need for export refunds and the theoretical equivalence to the standard VAT. At the same time other purported benefits remains disputable.

¹ Other administrative methods for collecting VAT include the subtraction method.

² Purchases from the exempt sector will include indirect tax because of the cascading resulting from what is effectively a turnover tax for trade between the taxable and non-taxable sectors. There is no practical method to refund the cascading tax from a sales tax system.

i. Speed Up of Revenue

This is really an administrative issue. It is proposed that S-VAT be paid to the government on a daily basis. It is not clear how this result will be achieved and, if it is achieved, there is no reason why the standard VAT cannot be collected more frequently.³ There is a tradeoff between frequent collection and the costs of collection. In general, a month appears to be the international standard for both VAT and sales tax. Thus, there is no gain from a speed-up of revenue from a switch to the S-VAT per se.⁴

ii. Working Capital

There may be some gain in working capital for exporters because exporters do not have to wait for VAT refunds. This gain should be weighed against the working capital losses experienced by producers who collect VAT under the standard system. Such producers have access to the VAT collections (on a net base) from the time of collection until the time of payment to the government. Whether the net effect of exporter gains and domestic supplier losses is positive or negative is not known. Again, however, this is a one-time effect.

iii. Economic Stimulation via a 15% Rate

A rate reduction for the standard VAT from 20% to 15% would also stimulate economic activity. Given the equivalence of the two taxes in theory, a rate reduction for the standard VAT would have similar effects to those purported for the S-VAT. Again, the investment effect has nothing to do with the structure of the S-VAT.

iv. Reduction of Corruption and Shadow Activity

It is true that false invoicing, fly-by-night firms and other frauds designed to take advantage of the standard VAT will be reduced. This reduction will be offset, at least in part, by other tax-related schemes to avoid paying sales tax. The most obvious scheme is simply claiming that sales are made to other taxpayers when in fact sales are being made for either private consumption or to non-registered taxpayers.

v. Lower Administrative Costs

The standard VAT has become the international standard indirect tax. This tax has replaced turnover taxes, because of their cascading effect, or sales taxes, because of their administrative complexity. One shortcoming of sales tax administration is that all taxpayers have to identify whether the purchaser is a taxpayer, and thus exempt from tax on that transaction. That is, a person buys goods or services and the seller must ask: "Are you a registered taxpayer?" No tax is charged if the answer is "Yes" but tax is charged if the answer is "No." It is clear that non-registered taxpayers have an incentive to lie and that registered taxpayers have limited ability to investigate the claim.

Under a standard VAT, the seller charges VAT to all purchasers. It is not necessary to know whether the purchaser is a taxpayer, nor is it necessary to know even the identity of the purchaser.⁵

Other aspects of the VAT and retail sales tax that affect administrative costs include:

³ Large taxpayers in Russia pay the VAT every ten days.

⁴ Any gain from a speed-up of revenue would be a one-time effect only and would have little or no effect in the steady state.

⁵ One benefit of the retail sales tax relative to the VAT is that there is no need to make a distinction between non-registered taxpayers and final consumers. Sellers charge sales tax to both groups. It is not clear how S-VAT will be collected from non-registered persons. The tax authorities may not even know the persons exist because they are not registered and these persons may not have bank accounts (or settlement accounts) that can be used for payment.

1. Number of taxpayers

The number of taxpayers will generally be the same under a sales tax and a VAT. All producers in a market economy must be registered because all producers sell to non-registered persons (either final consumers or non-VAT taxpayers); and,

2. Record keeping

VAT invoices will be required under the S-VAT. Thus, there are no gains to either the taxpayer or the tax administrator relative to the standard accounting and administration.

vi. Claim that there are no problems with the S-VAT

The draft proposal contains a claim that only benefits exist for the S-VAT relative to the standard VAT. It might be not valid for the reasons discussed above about the purported benefits. There are additional problems with the S-VAT

1. Treatment of Imports

Imports need to be treated like any domestic sale. Under an S-VAT, the tax must be charged when imports go to non-registered taxpayers or to final consumers. Domestic taxpayers should be exempt. It is not possible or desirable to exempt all imports because negative effective protection would result: the government would create an incentive to import substitutes for domestic goods and services because of the exemption. Another option would be to impose a uniform tax on imports but cascading would result. Thus, some method to administer the S-VAT on imports needs to be developed and such administration will be difficult.⁶

2. Services

Services have been difficult to tax under a sales tax. Many services (legal, accounting and other professional services) are used by both producers and final consumers. The preponderance of services can be supplied to producers in market economies. Thus, the S-VAT system does not work well for this sector. It is important to tax services, however, because some of the benefits of a general consumption tax are lost if services are exempt (or subject to excise).

3. Leakage

Compliance might be worse with an S-VAT. In particular, sales may be made into either final consumption or to non-registered taxpayers and escape taxation. In fact, one reason why the VAT has been designed and adopted is to reduce the revenue loss from such sales.⁷

4. Settlement Accounts

⁶ *The absence of international trade distortions combined with the administrative simplicity of taxing everything at the border may be one reason why the standard VAT has been adopted by so many countries. In addition, much VAT revenue accrues at the time of import. This relative easy source of revenue will be lost if the S-VAT is adopted.*

⁷ *A different set of administrative problems are created with the standard VAT and thus there is no pretense that the standard VAT is somehow the perfect model tax. It is apparent, however, that decision makers throughout the world have been convinced that, on balance, the standard VAT is better than a retail sales tax taking administrative and compliance considerations into account.*

Settlement accounts are still used in Ukraine and that fact is reflected in the examples presented in the proposal. It is hoped that settlement accounts will disappear as commercial banking becomes more predominate in Ukraine. Individuals and businesses should be able to have as many bank accounts as they desire, transactions should be relatively cheap and the government will have no control over either settlement accounts or mutual settlements. The standard VAT can be administered in such a market environment. It is not clear whether the S-VAT would have the same benefits because tracking (and tracing) via settlement accounts will (and should) be lost.

5. Collections

One benefit of the retail sales tax relative to the S-VAT is that there is no need to make a distinction between non-registered taxpayers and final consumers. Sellers charge sales tax to both groups. That this approach be adopted if the S-VAT is considered. It is not clear how S-VAT as proposed will be collected from non-registered persons. The tax authorities may not even know the persons exist because they are not registered and these persons may not have bank accounts (or settlement accounts) that can be used for payment.

3. Summary.

The standard VAT is considered a modern tax but it is important to remember that the VAT is more than fifty years old. The VAT was introduced in Europe as the continent was still recovering from World War II, computerization did not exist and accounting in Europe was not as sophisticated as it is today. Thus, the VAT was initially designed for implementation in countries with relatively low incomes and administrative capacity. In addition, three of the last countries to retain a sales tax system were federal countries: Canada, Australia and the United States. Indirect taxation was a primary revenue source for the states and provinces making it difficult for the national government to introduce a sales tax. These issues have been addressed in Canada and Australia, leaving the United States as the sole major economy without a VAT. Based on acceptance it is clear that the invoice – credit system VAT is considered superior to alternative indirect tax systems be they retail sales taxes or the S-VAT.

Alternatives to the S-VAT for Ukraine include making the standard VAT work better. A reasonable system has never been given the opportunity to function because the current VAT has been limited by statute (including exemptions and other deficiencies), lack of understanding and relatively poor administration. It is possible, however, to improve the statute, to increase understanding and to improve administration through time. Such marginal changes might be preferable relative to more fundamental changes to the indirect tax system.

Finally, Alan Tait (formerly of the IMF) has noted: “For countries with a sophisticated tax administration and good taxpayer compliance, a retail sales tax is an attractive option.” Ukraine is only developing a sophisticated tax administration and compliance as high as necessary. Given the equivalence of the S-VAT and the retail sales tax. The S-VAT is not a reasonable option for Ukraine now.⁸

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⁸ In addition, studies by Tanzi and others indicate that any advantages S-VAT/retail sales tax systems might have over a VAT appear to erode when rates are greater than 10%.

Table 1.

Standard VAT.							
	Import or Sector that Uses No Intermediate Good	Extractive Industry	Manufacturing Industry	Light Industry	Trade	Final Consumption	
Sales Net of VAT	65	100	150	250	350		
<u>Purchases</u>	<u>0</u>	<u>65</u>	<u>100</u>	<u>150</u>	<u>250</u>		<u>350</u>
Value Added	65	35	50	100	100		
Value Added Tax (20%)							
Collections From Sales	13	20	30	50	70		
<u>Payments From Purchases</u>	<u>0</u>	<u>13</u>	<u>20</u>	<u>30</u>	<u>50</u>		
<u>Net Paid to Government</u>	<u>13</u>	<u>7</u>	<u>10</u>	<u>20</u>	<u>20</u>		<u>70(a)</u>
VAT Inclusive Price							420

Table 2.

Symmetric VAT: Retail Sales Tax.							
	Import or Sector that Uses No Intermediate Good	Extractive Industry	Manufacturing Industry	Light Industry	Trade	Final Consumption	
<u>Sales</u>	<u>65</u>	<u>100</u>	<u>150</u>	<u>250</u>	<u>350</u>		
<u>Purchases</u>	<u>0</u>	<u>65</u>	<u>100</u>	<u>150</u>	<u>250</u>		<u>350</u>
Value Added	65	35	50	100	100		
Sales Tax							
Collections	0	0	0	0	70		
<u>Payments</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		
<u>Net Paid to Government</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>70</u>		<u>70(a)</u>
Sales Tax Inclusive Price							420

(a): Summation of all payments to the Government