

What can VAT Statistics Tell Politicians? (with a Focus on EAEU Data)

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Abstract

While policymakers use taxes for the regulation of the economy, tax authorities constantly monitor the amount of revenues from different taxes, and sometimes the tax benefits in use. However, the author believes that policymakers neglect the feedback mechanism, offered by the tax statistics – the signal function of the taxes. The author shows, on the example of tax policies and VAT statistics, how these outline the trends in the development of the Eurasian Economic Union – signs of tax competition, dependence on import and tax loss due to policy gap. The paper further suggests the possible course of action for the policymakers.

Key words

functions of taxes, signal function, VAT, tax harmonization, tax competition, import, export, domestic trade

Introduction

The researchers derived four main functions of the taxes (sometimes referred to as “four R’s”): raising revenue, redistributing wealth, re-pricing economic alternatives and representing the interests of people (or certain groups among them) (Cobham 2005). The fifth function, cited by some who follow the Keynesian approach, is regulating the economy (Licari and Meier 2000; Jones 2007).

Taxes may also execute other functions, for example, information. A number of researchers showed that policymakers may bring certain information to the producers or consumers using tax policy and related mass-media campaigns and thus influence their behavior. Barigozzi and Villeneuve (2006) developed a theoretical model, showing how the representative consumer changes their choices after the

implementation of a particular excise policy (including both changes in tax burden and respective media coverage explaining the reasons for the policy). They show that the “costly message” (increased tax or tax incentive itself) is more informative than the “propaganda” (e.g. media information about consequences of consumption of tobacco or alcohol or warning labels). Brockwell (2014), on the other hand, performed an empirical analysis of US data for 1988–2012, examining changes in the consumption of excisable goods (tobacco, alcoholic beverages, sugar and confectionary, household energy and motor fuel) due to increases of the relevant excise taxes. He confirmed the significant effect of taxes on tobacco, electricity and motor fuel consumption. The OECD (2000) also mentioned that the tax policy and certain tax measures (statutory tax rates, tax incentives for investors etc.) have a signal function, i.e. they convey a message on the beneficial nature of the tax regime. In other words, the changes in tax burden may lead to more significant changes in economic behavior than producers’ price changes or relevant “propaganda” in media – this is called the “signaling effect” of taxation.

It is worth mentioning that apart from the reaction of the taxpayers on the particular tax-policy measures, the researchers of tax-signaling devices consider two other areas: tax-based changes in the financial behavior of firms (Amihud and Murgia 1997) and the impact of tax measures on tax planning and tax-evasion activities (Franzoni 1998; Saavedra 2016; Dias et al. 2016). Again, these works considered the impact of changes in the tax and compliance burden on the behavior of the private economic agents.

However, taxes are a two-edge tool: the tax authorities register payers of various taxes (and therefore record their numbers and types) and collect and process tax returns (and therefore record tax bases, allowances in use, tax rates applied, tax incidences etc.), thus accumulating and processing a big volume of data within a rather restricted timeframe. The tax authorities use such tax statistics for tax-control purposes (e.g. risk-based selection of taxpayers to undergo tax control), but in many cases they also publish them in aggregated form. The authorities are able to update such statistics on a regular basis¹, making the analysis feasible and valuable for the policymakers.

These facts suggest that the taxation also functions as an information subsystem of the public administration: the tax regulations and the information on economic events are its inflow, and the information on taxpayers and the results of their activities (number of taxpayers, amount of taxes collected, amount of tax benefits used etc.) is its outflow. The comparative analysis of tax statistics of the neighboring countries may be used to assess not only the efficiency of their respective tax reforms, but also relevant economic tendencies. In addition, the politicians of the regional economic blocks often promote the cooperation in various matters,

1 In EAEU, Kazakhstan and the Kyrgyz Republic update the tax statistics monthly, and Russia does so monthly or quarterly, depending on the tax.

including certain aspects of tax harmonization, but the practice does not necessarily follow these talks – and the comparison of legal developments (as well as tax-policy documents) provides an important insight in countries' intentions. However, the literature analysis showed that the comparative analysis across regions or countries usually covers legal developments in tax pronouncements and the comparison of tax revenues (Tanzi et al. 2008; Petersen 2010) or the effect of taxation on FDI or other factors of production (Strasky and Pashinova 2012; Tyutyuryukov 2015b). Adamczyk (2015) is a rare example of estimating VAT effectiveness (based on VAT Revenue Ratio), in particular showing exchangeability between the noncompliance gap and the policy gap and the negative impact of tax preferences and the general effectiveness of VAT in EU.

This paper intends to further cover this gap and examine which useful information the tax statistics could provide for policy-makers.

Goal and methods

The Eurasian Economic Union (EAEU) and its predecessors consistently aimed at the harmonization of indirect taxation in intra-union trade, primarily focusing on value added tax (VAT). EAEU Member States impose VAT on the transactions with an absolute majority of goods, which makes VAT an almost omnipresent tax in this region. Thus, the statistics on VAT should correlate with the trends in countries' internal and external trade. In addition, VAT in EAEU Member States is based on the same principles, its administration employs very similar mechanisms, and it is regulated at the central level and contributes to the central budget of the countries, which allows a comparative analysis of developments.

The above dictated the main idea of this paper: the analysis of legal and statistical data on tax-policy decisions in the VAT area and their outcomes highlights the trends in economy and can support or disavow the policy statements with respect to the tax systems, as well as provide grounds for fiscal policy decisions. This article suggests an instrument of policy analysis based on fiscal information and uses it for drawing conclusions on the policy lessons for the local policymakers. Based on this the author determined the following research questions:

- 1) While EAEU Member States often report on VAT harmonization, do their domestic tax policies and developments support these statements?
- 2) How may VAT statistics be interpreted as signaling about trends in economy?

The object of this research is the tax data from Eurasian Economic Union (EAEU) Member States – Armenia, Belarus, Kazakhstan, Kyrgyz Republic and Russia (both publicly available statistics and legal pronouncements). The amounts of VAT proceeds are taken in percentage of GDP to offset the differences in the sizes of economies and inflation processes, which happen in all countries of the region,

but at different paces. The subject of this research is economic and administrative processes associated with the development and implementation of the tax policies.

Signals of VAT policies within EAEU: harmonization, divergence, competition?

To achieve the strategic country development goals, the governments prepare and implement policies in particular sectors, including the tax policy. At the level of EAEU and its predecessors a very explicit framework exists for partial tax harmonization, covering three areas, in chronological order:

- Excises – since 2001. The minimum level of excise duties on certain goods was established by Decision of Inter-State Council of Eurasian Economic Community #28 (2001) and extended by Decision of Inter-State Council of Eurasian Economic Community #242 (2005);
- VAT on intra-EAEU cross-border trade with goods and services – since 2008. The agreement on principles of levying indirect taxes [2008] and protocols to it established the following: export shall be subject to 0% VAT rate or exemption from VAT, import shall be subject to VAT in the country of import (“destination country” principle), VAT rates on imported goods shall not exceed VAT rates on the similar goods produced domestically; and
- Taxation of labor income – since 2014. Treaty on establishing EAEU (2014) provided for the use of the “domestic” tax rate for employees who are tax residents of other Member States. However, non-employment income of non-residents may be subject to special (higher) domestic rates.

EAEU Member States introduced the respective amendments to their tax legislation, with some omissions, however (for more details in English, see Tyutyuryukov 2016; Ponomareva 2016). But how did the countries incorporate such harmonization steps into their domestic tax policies?

While EAEU aims at the creation of a common market, its Member States are sovereign countries and develop their own policies independently from one another and from EAEU bodies. Even the high-level comparative analysis of the goals of EAEU Member States’ tax policies shows that there is a long road to creating a levelled and efficient common market.

The Government of Armenia published an overall strategy for the country development for 2014–2025, which includes a section on Public Revenue Policy (Government of the Republic of Armenia 2014). It states the prior directions of the Armenian tax policy as an expansion of the tax base and the creation of a favorable business environment. From 2014 onwards the goals are enhancement of the fiscal function of the taxes (which is currently underused) while implementing horizontal and vertical equity principles as well as the improvement of tax-administration ef-

iciency. In particular, the Armenian policy is to eliminate VAT exemptions, as well as to expand the list of excisable goods, in order to develop capital-gain taxation and wealth taxation. The Armenia Development Strategy specifically mentions the harmonization of domestic rates with those applied by other CIS countries so as to improve the tax competitiveness of Armenia (the current Armenian and Belarusian standard VAT rates, 20 %, are the highest in EAEU).

In 2004, the Council of the Ministers of Belarus approved the National Strategy of the Sustainable Social and Economic Development till 2020, which outlines the development of the common legal environment and equal tax conditions in Belarus and Russia to enhance regional integration. Belarus also adopted the Program of activities of the Government for 2011–2015, which sets, among other things, several goals with respect to taxation (decrease of tax burden, improvement of the country's Doing Business ranking, improvement of certain areas of income taxation). The officials of the Ministry of Finance² in the interviews disclose that they aim at shifting the tax burden to high-margin activities (such as financial services and de-facto state-owned monopolies) and improved tax control (to counteract tax law abuse) (Kiyko 2015). Earlier they cited simplification of tax administration by abolishment of certain taxes (Krapivina 2010) and revision of inefficient tax benefits (Chumakova 2011).

Kazakhstan does not operate a single tax-policy document – the President and the Government (the main domestic policy-makers) express their policy goals in their addresses. In “Strategy Kazakhstan – 2050” the President N. Nazarbayev focused on a simplification of tax reporting, an increase of tax-benefits efficiency and an expansion of stimulation and destimulation features (Tyutyuryukov 2015a). In the current program document, “100 Specific Steps of Further State-Building”, Mr. Nazarbayev planned for tax administration (its integration with customs administration, which is important for indirect taxes) and the improvement of tax collection (replacement of VAT with sales tax, introduction of overall personal-income-tax reporting, optimization of tax regimes) (Kazakhstanskaya Pravda 2015). The Government and the National Bank of Kazakhstan planned to use taxation to stimulate economic development and the inflow of investments, as well as the revision of tax benefits (Government of the Republic of Kazakhstan 2013, 2014). The Ministry of Finance and the Ministry of Economy and Budgetary Planning had to work on an improvement of tax administration, interaction among public bodies on tax-related issues and an increase of tax burden in cases of excises and taxation of luxurious items (Tyutyuryukov 2015a).

The Kyrgyz Republic aims at sustainable development, but its fiscal policy focuses on an increasing share of tax revenues allocated to local budgets, an improve-

2 In the last decade primarily Dmitry Kiyko, head of Department of tax policy and budget revenues of the Ministry of finance of Belarus.

ment of tax collection and administration and a shift from taxation of movable property to excises on petrol fuel (President of the Kyrgyz Republic 2013).

The Russian Ministry of Finance, while planning tax policy, pursues two goals: budget sustainability and support of entrepreneurial and investment activity (which should ensure the tax competitiveness of the country). To achieve these, it plans to increase tax-system efficiency, to freeze tax burden for non-resource industries and to counteract tax-base erosion and profit-shifting (Ministry of Finance of Russia 2014). Later it also included the assessment of tax-benefits efficiency into its plans (Ministry of Finance of Russia 2015). Among the measures planned and introduced are an increased tax burden on luxury real property and vehicles, the replacement of the corporate property tax with a corporate real-estate tax and the introduction of CFC rules.

While every sovereign country has the full right to develop its own policy in any area, the fact that the mentioned countries joined into an economic union suggests that their economy-related policies should be at least coordinated. Indeed, the EAEU predecessors implicitly acknowledged harmonized tax policy as one of their goals.³ However, the Treaty on EAEU provides for a coordinated (and potentially harmonized) macroeconomic policy, policies on cross-border trade, customs and relevant controls, as well as a policy on the exchange of information among state bodies – but not for the coordination of tax policies. Apparently, EAEU Member States are free to compete using them – which may potentially distort the business environment.

In fact, three of the reviewed tax-policy documents⁴ mentioned the membership of the respective countries in an economic block, while none ever provided for tax-policy harmonization. The Armenian policy openly refers to improving the country's competitiveness; Belarus, Kazakhstan and Russia explicitly stated their intentions of attracting the investments and promoting the domestic entrepreneurship – which also means tax competition. Armenia and the Kyrgyz Republic, having weaker economies and insufficient budget revenues, aim at the improvement of fiscal function and tax administration, which puts them at a certain disadvantage on the scale of a larger common market of EAEU.

3 Art. 3 of the Treaty on Customs Union and Common Economic Space 1999, followed by the Preamble of the Treaty on establishing Eurasian Economic Community 2000, and by the Preamble of the Treaty on the creation of common customs territory and formation of Customs Union 2007.

4 President of the Kyrgyz Republic (2013) with respect to the inclusion of the country into the common market, Government of the Republic of Armenia (2014) with respect to the improvement of Armenia's tax competitiveness and Ministry of Finance of Russia (2015) with respect to statistics and certain excise rates.

The review of main tax policy points leads to the following observations and conclusions:

- EAEU Member States commonly aim at the improvement of tax administration, including VAT issues;
- The tax policies of EAEU Member States do not consider the EAEU obligations or any other aspect of international cooperation, so, while complying with the Treaty on EAEU, every country pursues its own tax policy goals in all other areas – up to the abolishment of VAT in Kazakhstan;
- There is no consistency in the timeframe of developing and publishing tax policies: Armenia and the Kyrgyz Republic develop them within their general economic strategy, Belarus does not publish any up-to-date plans (though they exist for internal use), in Kazakhstan the President sets the strategic targets and the Government and National Bank prepare the short-term plans once every few years, Russia prepares a dedicated document every year for the upcoming three-year period;
- Only in Russia does the Ministry of Finance report on the implementation of the tax policy into the tax system on an annual basis (within the Main directions of tax policy), whereas in other countries the officers of the tax authorities report on the implementation on an ad-hoc basis, usually at roundtables or during interviews.

Despite the harmonization of certain indirect tax issues at the level of the Agreement on principles of levying of indirect taxes (2008), a few items remained unsettled (Golodova and Ranchinskaya 2012)⁵:

- Customs Union regulations provide no guidance regarding which works and services may be related to the movable and immovable property (important to determine the place of supply), and the domestic rules differ in this respect;
- Russia demands that the owner of imported goods pays VAT, while Belarus and Kazakhstan allows the trade agent to do it;
- Domestic rules on documentation and procedures sometimes deviate from the union rules.

Such inconsistency in approaches to tax policies implies a significant divergence in policy-making and complicates the assessment of how successful and how (in)congruent they are. These tax policies also show that despite public talks of the necessity of tax harmonization the EAEU Member States hardly intend to make any moves towards it beyond minimal compliance with obligations under treaties, thus maintaining the divergence of both tax policies and tax systems. Moreover, the

5 As of 2016, these issues remain.

analysis of the tax policies suggests the existence of a certain degree of tax competition within EAEU.

Analysis of VAT trends in EAEU member states

VAT is a unique tax, the statistics on which may provide an interesting insight into the structure of the trade and the creation of value added due to four factors:

- First, it is a central-level tax, fully regulated at the topmost level of the country administrative structure (and fully contributing to the central budget);
- Second, EAEU Member States achieved a certain convergence of VAT (same VAT model, similar to the EU one; same tax rates for import and domestic trade; taxation-at-destination principle; 0 % rate for export; taxation of most transactions; similar lists of exempted operations – public services, financial services, certain socially important goods and services and micro-businesses) and certain harmonization (administration of intra-union transactions);
- Third, use of the same rates of VAT for import and domestic trade makes feasible the comparison of the two amounts;
- Fourth, the deduction of incoming VAT from VAT on sales results in the fact that the tax proceeds to the budget are proportionate to value created (added) by the local industry.

These factors result in VAT proceeds corresponding to the trends in import and in value added by the local enterprises.

Figure 1 shows the dynamics of VAT collection in five EAEU Member States as a percentage of GDP of respective countries. The Kyrgyz Republic made available detailed statistics only from 2009, and Armenia and Belarus disclosed it to the Eurasian Economic Commission only from 2010. The gray lines on the graphs show the overall VAT burden. The dotted lines on the graphs show the amounts of VAT proceeds from the supply of goods and services within the territory of the respective countries, and the solid lines show the amounts of VAT imposed on the imports of goods into the territory of the respective countries.

The dynamics of these lines suggests the following.

Four countries show VAT proceeds from import activities consistently exceeding those from domestic trade. In Armenia the proceeds from “domestic” VAT has a distinct upward trend from 2010 to 2015 (from 3.3 % to 4.6 % of GDP). Considering that the country did not change the VAT rate, this suggest either an improvement of domestic production (higher value added leads to higher VAT contributions) or a worsening of VAT administration (denial of VAT offset or postponing VAT reimbursement).

In Belarus the proceeds from the “domestic” VAT are negative (with the exception of 2014, when it contributed 0.17% of GDP to the budget), though the Eurasian Economic Commission (2013) reports that “domestic” VAT was positive before offset or reimbursement of respective amounts of incoming VAT to the taxpayers. This suggests that the Belarusian industry is extremely export-oriented (export sales eligible for 0% VAT significantly exceed domestic sales).

In Kazakhstan and the Kyrgyz Republic “import” VAT consistently exceeds “domestic” VAT, but the proceeds from “domestic” VAT are relatively stable, fluctuating around 0.8% of GDP in the first case and around 2.1% of GDP in the second case. The downward trend in both types of VAT proceeds in Kazakhstan in 2007–2009 could be attributed to the decrease of the statutory rate from 14% in 2007 to 13% in 2008 and 12% in 2009 (though this does not account for the steeper decline in the amounts of “import” VAT). Fluctuations in proceeds from “domestic” VAT in 2010–2014 are further attributed to amounts of VAT owed to taxpayers due to the reimbursement of overpayment, which was increasingly paid in 2011 and 2012, but accumulated in the budget due to formal issues in 2013 (Accounts Committee 2013).

The obvious dominance of the domestic industry and trade over import in Russia was lost over 2005–2008. The crisis of 2008 revealed the deficiencies of the Russian economy, but the downward “domestic” VAT trend, judging from the declining graph, may have started earlier than 2005. (The Russian authorities did not publish separate data on “domestic” and “import” VAT before 2005, so the author cannot comment on earlier trends.) The share of “domestic” VAT in GDP decreased significantly – from 4.7% in 2005 to 3.06% in 2014 (the lowest point was 2.42% in 2008). Since VAT rates were constant during this period and VAT proceeds should be positively related to GDP, this may suggest three possible options:

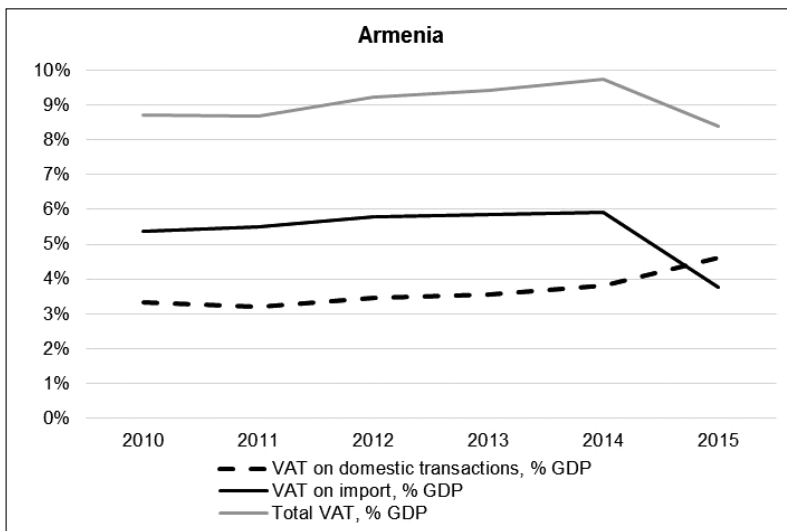
- increase of non-VAT-able transactions (either legally, e.g. by an increased share of exempt transactions, or illegally, e.g. by a spread of shadow economy). Abramov and Kashin (2016) report a huge VAT non-compliance gap;
- lower value added (economy becomes oriented to simpler transactions). However, the official statistics did not report any drastic shrinkage of the producing sectors;
- higher reimbursement of VAT for exporters (economy becomes more dependent on export). A possible option, considering similar findings in Kazakhstan. Abramov and Kashin (2016) also report that reimbursement of VAT for exporters is inflated due to tax fraud.

Russia is the only one of the reviewed countries where the tax authorities publicly report the usage of certain tax benefits – in particular VAT exemptions. Art. 149 of the Russian Tax Code (TC RF) lists the operations exempted from VAT throughout the territory of Russia, including the supply of certain medical goods

and most medical services, education and child-care services, cultural services, in-city transportation, supply of utilities, rent and sale of living premises, supply of IP, financial services (banking, depositary, clearing, insurance and similar), sale of shares and services of public authorities. However, the taxpayers must report on the exempt turnover, and the Federal Tax Service tracks these exempt amounts as well and publishes them as the Annex to Form 1-НДС “Report on Structure of Tax Accruals for Value Added Tax”.⁶

Figure 1

Dynamics of the VAT proceeds in EAEU Member States, as a percentage of GDP



6 The tax authorities of other EAEU Member States report only on the amounts of planned and actual tax proceeds, probably keeping the rest of the information for internal use.

Figure 1 (continuation)

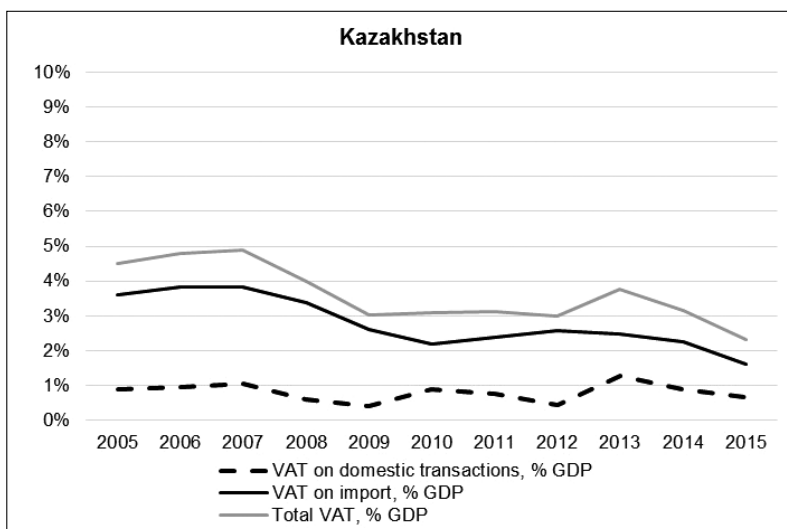
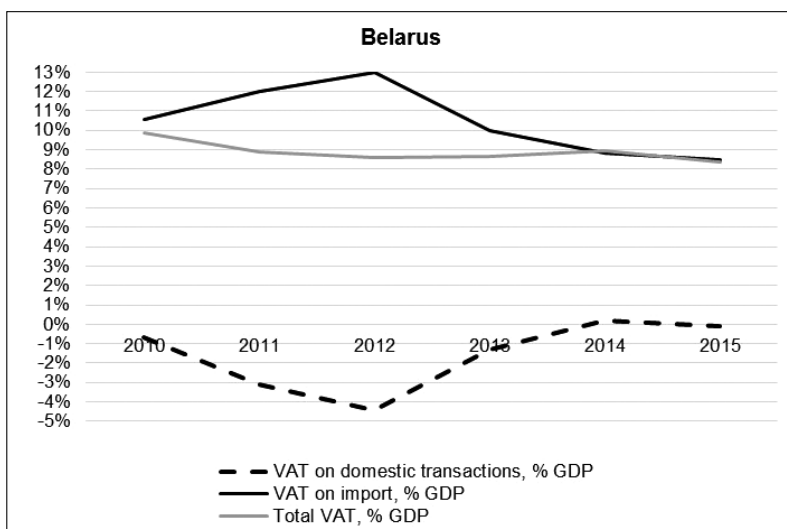
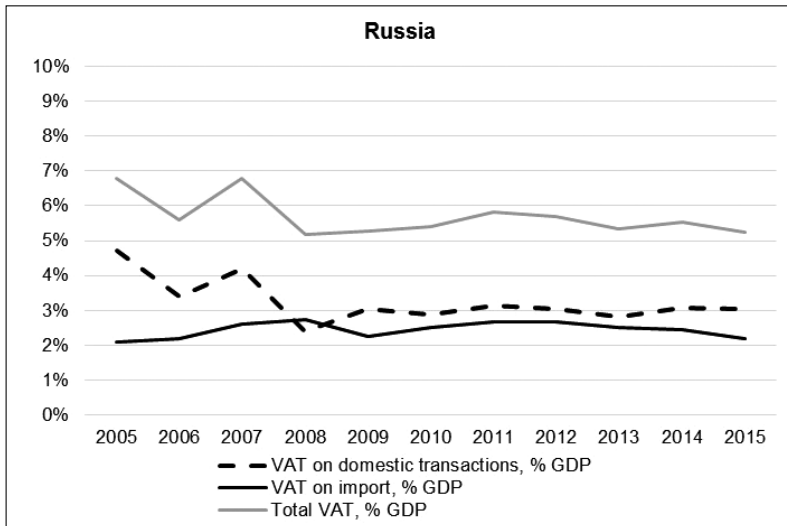
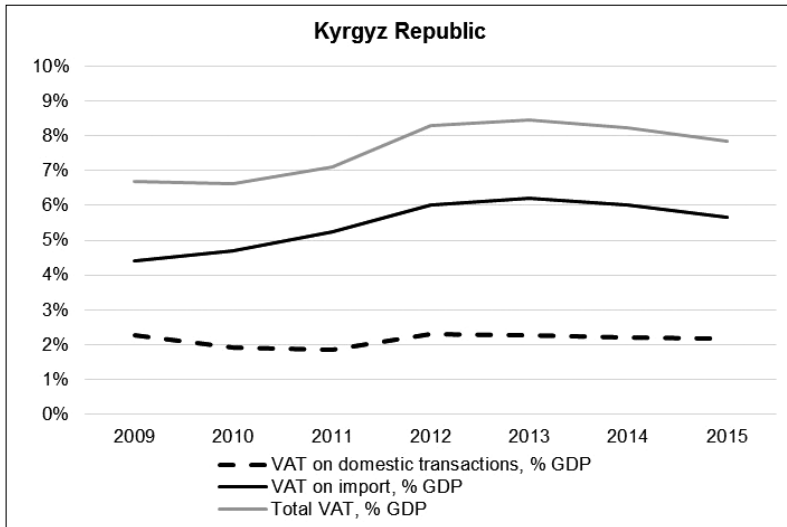


Figure 1 (continuation)



Source: developed by the author, based on official reports on budget execution (Eurasian Economic Commission 2016)

An analysis of Forms 1-НДC and their annexes shows that the amount of tax benefits grew from 5.34 % to 8.22 % of GDP over 2006–2014; it exceeds the amount

of VAT actually collected by almost 70 % on average⁷ and by 49 % in 2014! In other terms, the amount of VAT benefits on average equals to 36 % of the total federal budget.

The analysis of amounts underreceived due to VAT benefits shows that in 2014 97.7 % of them were due to financial operations, including:

- sale of shares in the companies (Art.149.2.12 of TC RF) – 14.49 % of total amount;
- bank operations (Art.149.3.3 of TC RF) – 14.94 % of total amount; and
- loan and REPO operations (Art.149.3.15 of TC RF) – 67.25 % of total amount.

Art.135 of Council Directive 2006/112/EC on the common system of value added tax also provides for the exemption of these operations, thus making Russian regulations in line with the European ones. However, speaking of economic environment, these statistics may be interpreted as follows:

- exempt operations in 2014 totaled 1.49 times VAT-able operations; and
- 67.25 % of the exempt operations in 2014 were loans and REPO operations, meaning the remuneration for them equals a total of VAT-able operations; meaning
- an amount of remuneration for loans and REPO operations (a tax base for potential but underreceived VAT) equals the taxable value added in all other industries; and
- the amounts of remuneration for bank operations and sales of shares equal 22 % of the taxable value added in all other industries each.

Thus, in the case of Russia, VAT data signals that debt-financing clearly dominates in the Russian economy. Considering that Russian banks offer business-to-business loans at around 15 % p.a., thus making them very expensive even without VAT, the Russian companies (especially the large ones) seek for credit abroad, where they may obtain the loans at much lower interest rates, usually via a chain of special-purpose vehicles, which may result in profit-shifting to other jurisdictions. Thus VAT shows the direction for further investigation of capital outflow from Russia, for developing the measures for replacement of debt-financing with foreign direct investment – and for a potential but yet unused tax base (e.g. tax on transactions with the financial instruments).

A second trend apparent from Figure 1 are the relative volumes of imported and domestic goods and services. In Russia, some researchers (Ternopolskaya et al. 2015) note that the previously high domestic value added came close to the volume of import: while the share of VAT on imports in GDP stayed steadily around 2.5 %

7 With the exception of 2009 and 2010, when the Federal Tax Service did not publish the statistics on VAT benefits.

of GDP, the trend of VAT collected on domestic transactions generally goes downwards. This highlights a slowing-down in the development of the Russian economy.

From this standpoint, the situation in Kazakhstan and the Kyrgyz Republic is much worse: by 2015, the “import” VAT exceeded “domestic” VAT 2.4-fold in the first case (decrease from 4.0-fold) and 2.6-fold in the second case (increase from 1.9-fold). In absolute terms, “import” VAT in Kazakhstan dropped by 2.2% of GDP over 2005–2014, and in the Kyrgyz Republic it rose by 1.6% of GDP over 2009–2014. With relatively stable proceeds from “domestic” VAT this suggests a significant dependence on imported goods (and insufficient supply of domestic goods).

For Armenia and Belarus, this conclusion cannot be made with certainty. In Armenia, over 2010–2014 the “domestic” VAT constituted 36.9% to 39.3% of “import” VAT, being relatively stable. In 2015, the “domestic” VAT exceeded the “import” VAT, but further dynamics are yet unknown. In Belarus, the negative figures of VAT suggest their distortion by external factors.

An international comparison would suggest whether “import” VAT exceeds the “domestic” one in other countries, and whether this affects the respective economies in a positive or negative way.

Analysis of VAT trends in third countries

The research showed that only some countries publish the information on VAT proceeds with a breakdown between “domestic” and “import” amounts.⁸ Eurostat and most countries, apparently following the UN approach, present in their fiscal statistics only the generalized D211 category “Value added type taxes” (as per UN System of National Accounts 2008), with no breakdown for “import” and “domestic” proceeds.

However, Ireland, the Slovak Republic, South Africa, Spain and Switzerland publish such a breakdown. Figures 2–6 show the dynamics of “domestic” and “import” VAT over the last decade, based on a series of reports published by respective tax authorities.

In three reviewed cases (Ireland, South Africa and Spain), net proceeds of “domestic VAT” consistently (and significantly) exceed those of “import” VAT. The latter is relatively stable in these three countries, suggesting a smaller dependence on import and its constant volume.

In Ireland, the “import” VAT fluctuated between 0.58% and 0.84% of GDP, while “domestic” VAT fell from 6.42% to 4.83% of GDP, the majority of reduction

8 The statistics published by fiscal authorities of the following countries were reviewed, but found to contain no such breakdown: Austria, Belgium, Czech Republic, Estonia, France, Germany, Italy, Luxembourg, Malta, Netherlands, Portugal, UK.

happening over 2008–2011. Considering that Ireland is an island nation, its economy either produces significant added value or is based on the services with place of supply in Ireland. The stabilization of “domestic” VAT and the slight increase of “import” VAT from 2012 onwards may be partially attributed to the increase of the statutory rate (from 21 % to 23 %).

In the case of Slovakia, both components fluctuate between 2.23 % and 3.72 % of GDP with occasional dominance of either. This may be interpreted as a significant inclusion of Slovakia into international trade and the division of labor. While it increased VAT rate from 19 % to 20 % in 2011, this had little (if any) impact on trade trends.

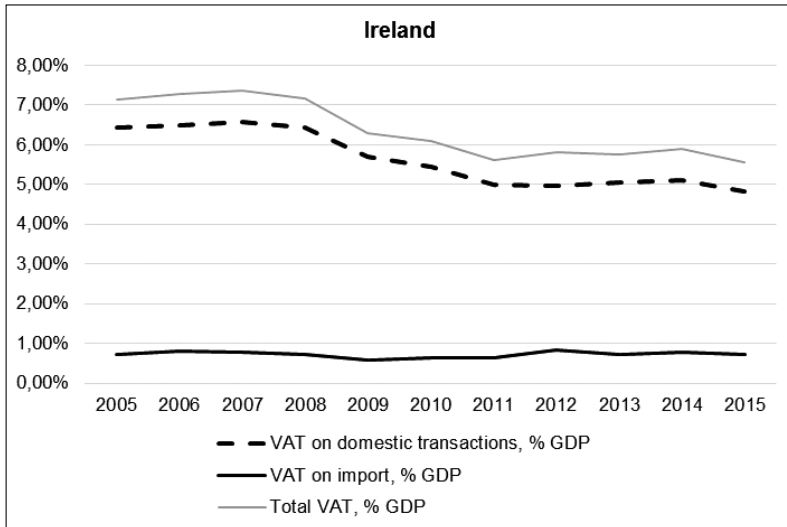
In South Africa, the “domestic” VAT exceeds “import” VAT 2.1–2.6-fold, and both have slowly been increasing since 2009. Considering the stable VAT rate of 14 %, this suggests steady economic development.

The Spanish situation is more controversial. It experienced a drop in “domestic” VAT proceeds from 4.56 % of GDP in 2006 to 2.53 % of GDP in 2009, while VAT rates were constant. While this amount returned to the 2008 level in 2010 and increased since then (to almost the 2006 level by 2015), this is partially due to two increases in VAT rates: from 16 % to 18 % (from 2010) to 21 % (from 2012). However, given small changes in VAT proceeds in 2012, the significant change in 2010 should be largely attributed to the economic factors.

Switzerland is the only country in this comparison, where the “import” VAT consistently exceeds the “domestic VAT” 1.2–1.6-fold in 2005–2008, and 1.15-fold from 2010, or by 0.25 % of GDP. The increase of the VAT rate from 7.6 % to 8 % from 2011 resulted in a slight elevation of the total VAT burden but did not change the situation drastically.

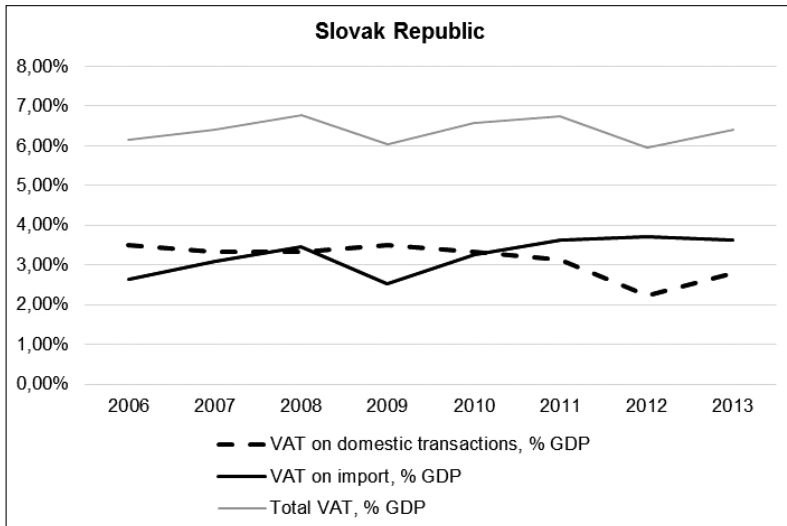
However, even the examples of Slovakia and Switzerland are not comparable with those of EAEU Member States, where “import” VAT exceeds the “domestic” one 1.5–2.6-fold (not counting Belarus with a negative net amount of “domestic” VAT).

Figure 2
Dynamics of the VAT proceeds in Ireland, as a percentage of GDP



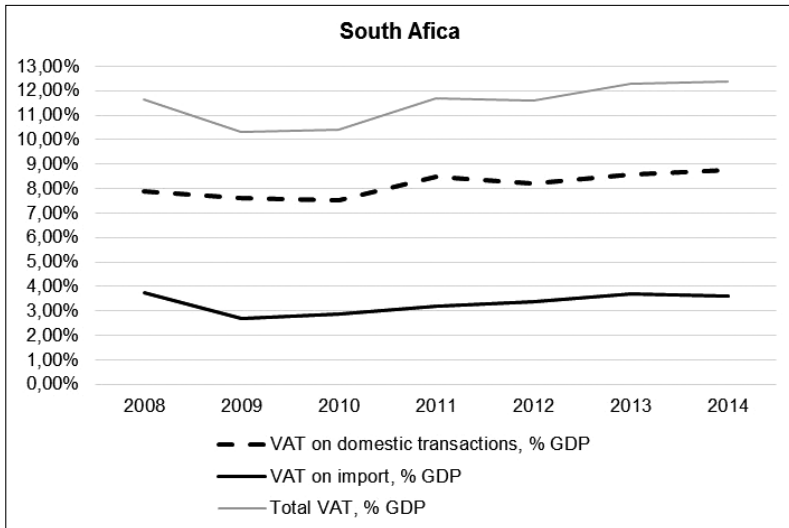
Source: developed by the author based on Irish Tax And Customs (2016).

Figure 3
Dynamics of the VAT proceeds in the Slovak Republic, as a percentage of GDP



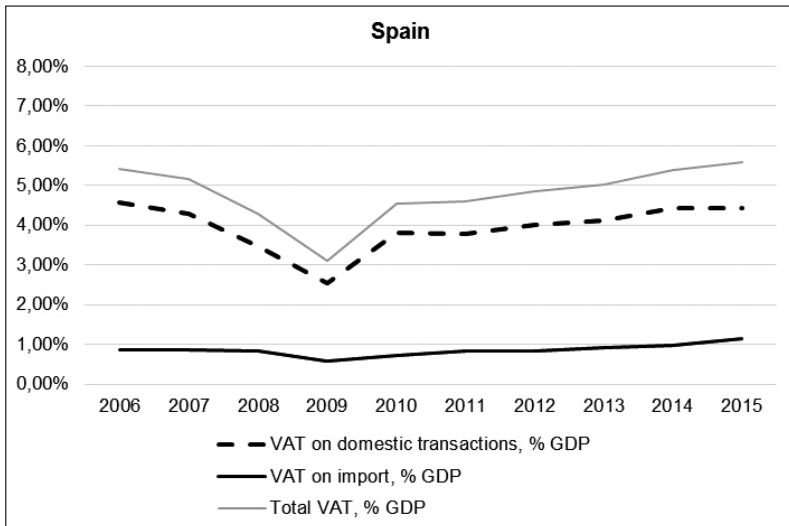
Source: developed by the author based on Finančná Správa (Slovak Republic) (2016).

Figure 4
Dynamics of the VAT proceeds in South Africa, as a percentage of GDP



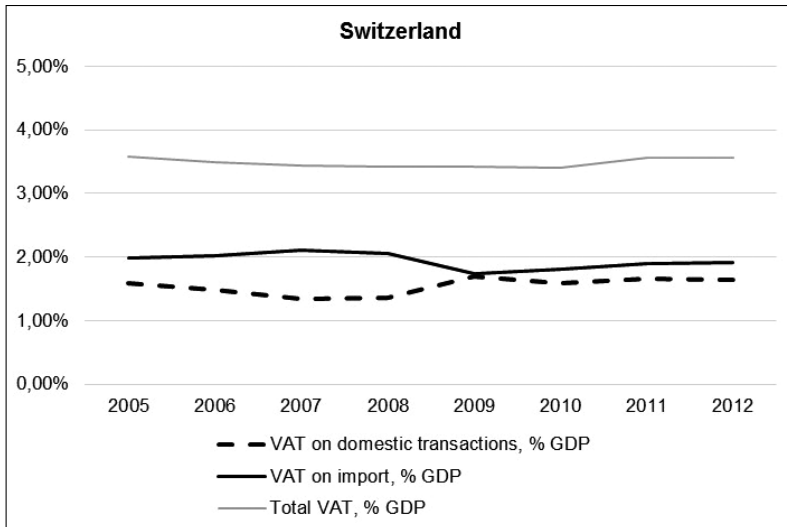
Source: developed by the author based on South African Revenue Service (2016).

Figure 5
Dynamics of the VAT proceeds in Spain, as a percentage of GDP



Source: developed by the author based on Agencia Tributaria (Spain) (2016).

Figure 6
 Dynamics of the VAT proceeds in Switzerland, as a percentage of GDP



Source: developed by the author based on Bundesamt für Statistik (2010–2014).

Structure of import and export and countries' dependencies

Let's analyze further the structure of import and export for the same countries: the main items of import would show the potential dependence of the country, while the main items of export (which is subject to a 0 % VAT rate) would show which industries demand the reimbursement of incoming VAT, thus reducing the VAT proceeds. Tables 1 and 2 show the breakdown of the main items of import and export, according to the official statistics of the same countries: five EAEU Member States, Ireland, the Slovak Republic, Spain, South Africa and Switzerland. The data presented are for 2014, but the listed groups of goods generally remained the same in previous years.

Table 1

Main items of export and import of EAEU Member States in 2014, in percentage of total export or import

	Export	Import
Armenia	Metal ores (mostly copper, zinc, precious metals, molybdenum; 18.8%) Pearls, precious or semi-precious stones, precious metals & articles thereof (mostly diamonds, gold and jewelry; 14.9%) Primary iron semiproducts (7.1%) Beverages, vinegar, alcohol and ethyl spirit (12.2%) Tobacco products (7.5%) Raw aluminum and aluminum articles (6.0%) Energy products (mostly gas and electricity; 5.6%) Raw copper and its products (4.9%)	Energy products (mostly oil, petrol products, gas and electricity (19.0%) Machinery and equipment (9.0%) Motor vehicles and spare parts (7.8%) Pearls, precious or semi-precious stones, precious metals & articles thereof (mostly diamonds and gold; 6.9%) Electric equipment and spare parts (4.5%) Polymers and plastic products (2.9%) Grain (2.8%) Medicines and medical products (2.7%)
Belarus	Mineral products (34.2%) Chemical products (17.3%) Machinery, equipment and motor vehicles (15.2%) Raw and processed food (15.3%) Base metals & articles of base metal (6.5%)	Mineral products (30.0%) Machinery, equipment and motor vehicles (25.3%) Chemical products (14.2%) Raw and processed food (11.8%) Base metals & articles of base metal (9.1%)
Kazakhstan	Mineral products (80.4%) Ferrous and non-ferrous metals (8.5%) Chemical products (3.8%)	Machinery and equipment (26.2%) Motor vehicles and spare parts (14.8%) Ferrous and non-ferrous metals (10.5%) Chemical products (8.9%) Mineral products (7.3%) Processed food and tobacco products (5.3%)
Kyrgyz Republic	Precious metals, precious stones and items made of them (38.51%) Mineral products (10.01%) Textile items (7.23%) Agricultural (plant) products (6.79%) Chemical products (3.17%)	Mineral products (21.02%) Motor vehicles and spare parts (15.89%) Machinery and equipment (10.35%) Chemical products (9.46%) Processed food (7.83%)
Russia	Mineral products (predominantly hydrocarbons; 70.5%) All metals, precious stones and items made of them (10.5%) Chemical products (5.9%) Machinery, equipment, motor vehicles and spare parts (5.3%)	Machinery, equipment and motor vehicles (47.6%) Chemical products (16.2%) Raw and processed food and tobacco products (13.9%) All metals, precious stones and items made of them (7.2%) Textile items and shoes (5.7%)

Source: National Statistical Service of the Republic of Armenia (2016), National Statistical Committee of the Republic of Belarus (2016), Committee on Statistics (2015), Kyrgyz National Statistics Committee (2015), Federal State Statistics Service (2015)

The common feature of four EAEU Member States (except Belarus) is a significant share of natural resources (with lower shares of other goods) in the total export volume: metal ores and semiproducts in Armenia and the Kyrgyz Republic and hydrocarbons and metals in Kazakhstan and Russia. In other words, these countries mostly export products with lower value added. Belarus, however, mostly exports petrol products and chemical products, manufactured from local or imported raw materials (mainly from Russia).

Among the imports the common feature for all EAEU Member States is a high share of products with higher value added (commonly machinery, chemical products and foodstuff). This is consistent with the large proceeds of “import” VAT in comparison to “domestic” VAT as shown in Figure 1.

This information on structure of trade, together with the findings of the Kazakhstani Accounts Committee (2013), suggests a fiscal drawback of dependence on resource industries: while exporting the natural resources (i.e. products with low value added), the respective industries demand reimbursement of incoming VAT, thus reducing the public finance available for the state-wide programs of the central authorities. Kazakhstani policymakers suggested the replacement of VAT with a sales tax to counter this effect and increase tax revenues. Russian policymakers preferred considerations whether to deny the deductibility of incoming VAT for exporters of mineral resources.

Belarus poses a different question: while its exporting industry mostly consists of petrol refineries, chemicals manufacturers and machinery producers, these industries de facto receive “subsidies” in form of a VAT refund – which is not the case for other EAEU Member States. Thus, Belarusian business with higher value added is probably in more beneficial conditions than in other countries, which may distort the common market. This is a definite call for other Member States to support their manufacturing business – which, in the future, should simplify the countries’ sustainable development.

Besides, the 2.4–2.6-fold excess of “import” VAT over “domestic” VAT in Kazakhstan and the Kyrgyz Republic marks a huge dependence of the country on imported goods with high value added. In light of the recently severely weakened currencies of EAEU Member States the imported goods (the prices of which are commonly expressed in US dollars or euros) became very expensive, so the demand for them falls (in favor of the cheaper analogs, if the goods are truly necessary). This triggers both a decrease of quality of life and – in the short-term perspective – a reduction of the overall VAT revenues.

On the contrary, the import and export of Ireland, the Slovak Republic, Spain and Switzerland consist of the similar groups of goods, mostly with high value added (see Table 2). South Africa, however, performs closer to Russia, featuring a significant amount of exported natural resources – but also importing sufficient amounts of those. In Switzerland, about one quarter of both import and export con-

sists of precious metals, stones and articles thereof, which suggests active trade in these with other countries, apart from importing materials for further processing.

This more balanced structure of cross-border trade corresponds with the amount of “domestic” VAT proceeds being almost equal or higher than the amount of “import” VAT proceeds.

Table 2
Main items of export and import of selected foreign countries in 2014, in percentage of total export or import

	Export	Import
Ireland	Chemicals and related products (pharmaceutical products, organic chemicals etc.; 56.07%) Miscellaneous manufactured articles (13.73%) Machinery and transport equipment (13.16%) Food and live animals (10.17%)	Machinery and transport equipment (transport equipment, office machines etc.; 38.72%) Chemicals and related products (18.79%) Miscellaneous manufactured articles (clothing, scientific and controlling apparatus etc.; 11.33%) Mineral fuels, lubricants and related materials (10.64%) Food and live animals (10.16%)
Slovak Republic	Machinery and transport equipment (57.69%) Intermediate manufactured products (16.82%) Miscellaneous manufactured articles (9.87%) Chemicals and related products (4.84%) Fuels and related products (4.74%)	Machinery and transport equipment (43.86%) Intermediate manufactured products (15.39%) Miscellaneous manufactured articles (12.31%) Fuels and related products (10.54%) Chemicals and related products (8.88%)
South Africa	Mineral products (23.60%) Natural or cultured pearls, precious or semi-precious stones, precious metals & articles thereof (16.86%) Base metals & articles of base metal (13.00%) Vehicles, aircraft, vessels & associated transport equipment (10.47%) Machinery & mechanical appliances; electrical equipment; parts thereof (9.88%) Products of the chemical or allied industries (6.29%) Vegetable products (4.78%) Prepared foodstuffs; beverages, spirits & vinegar; tobacco (4.30%)	Mineral products (23.72%) Machinery & mechanical appliances; electrical equipment; parts thereof (23.01%) Vehicles, aircraft, vessels & associated transport equipment (9.49%) Products of the chemical or allied industries (9.45%) Special classification of original equipment components/parts for motor vehicles (6.48%) Base metals & articles of base metal (4.61%) Plastics & articles thereof; rubber & articles thereof (3.89%) Textiles & textile articles (3.22%)

	Export	Import
Spain⁹	<p>Transport vehicles & equipment (18.67%) Machinery, mechanical appliances, electrical equipment (13.59%) Products of the chemical or allied industries (10.53%) Base metals & articles of base metal (8.47%) Mineral products (8.06%) Vegetable products (5.88%) Plastics, rubber & articles thereof (5.20%) Prepared foodstuffs, beverages, tobacco (5.11%) Textiles & textile articles (5.00%) Other unclassified goods (4.21%) Live animals, animal products (3.35%)</p>	<p>Mineral products (24.60%) Machinery, mechanical appliances, electrical equipment (14.86%) Products of the chemical or allied industries (12.19%) Transport vehicles & equipment (10.83%) Base metals & articles of base metal (6.46%) Textiles & textile articles (5.68%) Plastics, rubber & articles thereof (4.51%) Prepared foodstuffs, beverages, tobacco (4.27%) Vegetable products (3.41%) Live animals, animal products (3.03%)</p>
Switzerland	<p>Chemical products (29.92%) Precious metals, precious stones and items made of them (26.15%) Instruments, watches, bijoux (16.51%) Machinery and electronics (11.69%) Metals and metal products (4.38%)</p>	<p>Precious metals, precious stones and items made of them (28.57%) Chemical products (17.01%) Machinery and electronics (12.02%) Instruments, watches, bijoux (7.95%) Motor vehicles (6.40%) Metals and metal products (5.70%) Agricultural products (5.57%) Energy products (4.75%)</p>

Source: Central Statistics Office (Ireland) (2016), Statistical Office of the Slovak Republic (2015), Department for Trade and Investments (South Africa) (2016), Instituto Nacional de Estadística (Spain) (2016), Swiss Customs Administration (2015)

⁹ Instituto Nacional de Estadística published last available figures for 2013

Policy lessons

This paper explores the potential of the signal function of the taxes using tax-policy documents and statistics on VAT and cross-border trade. The analysis of these data highlights the favorable and/or unfavorable trends in the economic environment and policy development, suggesting the focus points of policymaking for the future periods.

If we have to consider the trends in an economic block, such an analysis requires the comparable data for all its member states. Eurostat, for instance, annually publishes the reports “Taxation Trends in the European Union”, disclosing the same tax information for all EU Member States, Iceland and Norway (and, apparently, the national tax authorities prepare this information in a standardized way). However, the EAEU Member States publish tax statistics with different degrees of details: from the annual amounts of tax revenues of the central budget broken down by taxes in Belarus to the detailed statistics on taxpayers, tax base, tax accruals etc. in Russia. This complicates the comparison of countries’ trends and achievements, so the Eurasian Economic Commission¹⁰ in 2016 started to publish limited tax statistics (structure of tax revenues, breakdown of VAT and excise proceeds) in a common format to ensure the consistency of data (Eurasian Economic Commission 2016). However, these statistics date back to 2010 only, and in absence of disclosures from the national authorities for a longer period a reliable econometric analysis is not yet feasible.

But even in the current EAEU environment a certain analysis is possible: for instance, we may see that the VAT on import in four EAEU Member States significantly exceeds the VAT on domestic transactions, while three of these countries export resources and import goods with high value added. VAT effectiveness may be affected by either a policy gap or a non-compliance gap (Adamczyk 2015), so there are two possibilities, both of which should attract the immediate attention of the policymakers: severe country dependence on imported products (which is the policy gap and a sustainability issue) or domestic tax fraud (which is the non-compliance gap and an administrative issue). The same is essentially correct for Russia, which experienced a significant decrease in VAT collection on domestic transactions in 2005–2008, though a dependence of Russia on import is less crucial. So all these countries need to revise their respective economic policies.

A comparison with other countries which publish a breakdown of VAT proceeds for domestic trade and import suggests that the significant excess of “import” VAT over “domestic” VAT (more than 1.5-fold) is not common. It should be noted that the statistics shows net “domestic” VAT that is after offset or refund of incoming VAT for domestic exporters. The comparison of the structure of import and export of EAEU Member States and third countries suggests that EAEU exporters

¹⁰ The governing body of the Eurasian Economic Union.

which mainly benefit from VAT refund are resource producers: in other words, the central governments “subsidize” this industry, but not so much those producing higher added value. Belarus is an exception here, but it presents another issue: its businesses are probably not in the same conditions as their competitors in other EAEU Member States due to such “subsidy”, so the levelled condition on the common market are yet to be achieved.

In addition, the VAT declarations in EAEU Member States require the businesses to report on both VAT-able and exempt turnover, but only Russia publishes the information on exempt turnover, making feasible the analysis of tax-benefits efficiency. All EAEU Member States enacted extensive lists of exempt transactions, but above we saw that in Russia 97.7% of exempted amounts were for financial transactions, and only 2.3% were for other operations, including socially important ones. While all EAEU Member States pronounced recently that a revision of tax benefits is necessary, none of them performed any regular analysis of tax-benefits efficiency, and it is not publicly known whether the country’s economy benefited to any extent from these amounts left at the disposal of the companies. It may be beneficial for all EAEU Member States to perform a regular assessment of tax-benefits efficiency, as Russia planned for 2016–2018, and introduce the benefits on a temporary basis with the possibility of subsequent prolongation. This latter option could benefit the business decision-making, offering a more predictable environment for planning.

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