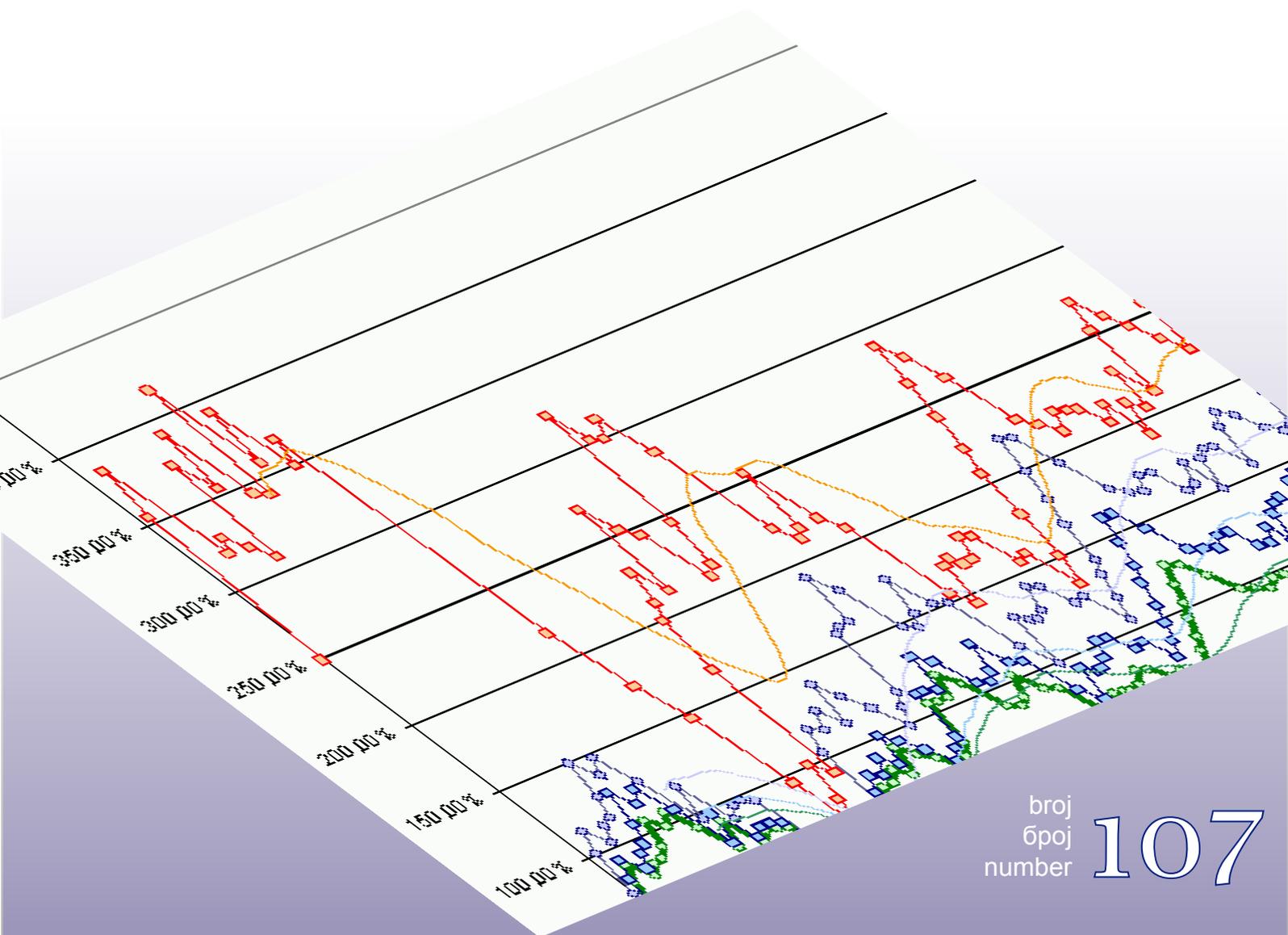




Macroeconomic Unit of the Governing Board of the Indirect Tax Authority

# *Oma Bilten*



broj  
број  
number **107**

## With this issue

According to the preliminary report of the ITA by type of revenue the collection of gross revenues from indirect taxes in May was 8,8% lower than in the same month of 2013. Since at the same time refunds increased by approximately 17%, the drop in net revenues in May amounted 13,4%. Observed at the level of the period January - May 2014 the increase of gross revenues from indirect taxes amounted 102,8 million KM or 4,5%. However, due to the growth of refunds of 10,2%, the cumulative net collection of revenues increased by 61,1 million KM or by 3,2%. The strong revenue growth in the period January - April resulted from the following factors: (i) the collection of a significant amount of outstanding debts for VAT and excise duties on beer; (ii) increase in imports (especially imports of facilities from China for investments in the energy sector); (iii) increase in the base of VAT on imports due to the changes in the customs regime for some companies dealing with internal processing; and (iv) increase in inventories of tobacco due to expectation of the adoption of the amendments to the Law on Excise Taxes. The increase in imports was not accompanied by the growth in domestic consumption, since it was partially related to the investments and import of materials for the export of finished products. On the one hand it brought the growth in gross inflows of VAT, and on the other hand resulted in increased demands for VAT refunds and weaker inflows arising from VAT returns. The impact of the flooding which took place on 15 May 2014 on the collection of indirect taxes in May 2014 was not significant for several reasons. Firstly, the effects on import revenues could have been felt only in the last few days of May due to the deadlines for payment of customs debt. Secondly, the effects of reduced consumption of flooded areas in the second half of the month will be evident in June after submitting VAT returns for the month of May. The comparison of cumulative revenue collection on imports in May 2014 with the same month in 2013 points to the conclusion that the revenue decline occurred around the 10<sup>th</sup> of the month, when the returns for VAT and excise duties are being submitted. Decrease in collection in that period is the result of (i) offsetting VAT on imports from April with VAT on domestic consumption for the same month and (ii) reduced payment of domestic excises due to general repair of Refinery. The decline in revenues from the collection of excises on tobacco, as a third reason for poor revenue collection in May 2014, is expected due to the higher statistical basis in May and June 2013 resulting from stockpiling prior to Croatia's accession to the EU.

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## The main determinants of fluctuations in monthly revenue collection from indirect taxes

(Author: Dinka Antić, PhD)

### METHODOLOGICAL VIEW

Projections of revenues from indirect taxes are, in principle, based on:

- 1) Projections of the main macroeconomic aggregates (GDP, consumption, investment, imports, exports, prices);
- 2) Policies of indirect taxes which would be implemented during the period covered by projections;
- 3) Current trends and historical collection schemes.

1) Methodologically, it is necessary to ensure that the dynamics and horizon of revenue projections correspond to the dynamics and horizon of macroeconomic projections. Monthly or quarterly fluctuations in the movement of the main macroeconomic variables largely determine quarterly or monthly trends in revenue collection. In this sense, the rule is that as the time period for planning is shorter, fluctuations in the collection are sharper. However, the impact of the season or business cycles is mainly leveled annually, both in terms of macroeconomic trends and revenue collection. Bearing in mind the demand and complexity of modeling quarterly projections of macroeconomic aggregates, the practice of states is to publish annual macroeconomic projections, from which the practice of making annual fiscal projections came out, including projections of revenue from indirect taxes. Such practice is in line with standards of the EU, IMF and OECD in regard with the development of multi-year fiscal framework and the presentation of annual budgets. Equivalent to the practice of developed countries, Directorate for Economic Planning provides only annual macroeconomic projections, allowing the Unit to make annual revenue projections of indirect taxes, in accordance with the obligations under the Law on Financing of B&H Institutions.

2) Changes to tax policy lead, on the one hand, to adapt to business policies of taxpayers and on the other hand, to changes in consumer's behavior, prior to the announced policy changes and after applying the new tax policy. Changes in the behavior pattern of taxpayers and consumers are directly reflected in monthly revenue collection, producing variations in relation to historical time data series. The same effect is created by the policy changes that lead to differentiated taxation of substitutes provoking legal and illegal tax evasion. In the last six years B&H has continually changed the policy of indirect taxes in the fields of customs duties and tobacco taxation, which time series from that period makes unreliable for monthly projections for the next years.

3) Historical collection schemes from the previous years are useful for understanding trends, but they cannot be the sole input for projections of revenues from indirect taxes. Quarterly and monthly trends in collection of revenues from indirect taxes under the influence of various factors are subject to strong fluctuations, which make historical schemes of collection of indirect taxes *de facto* unusable for monthly and quarterly projections.

Simulation of historical trends in the current collection in 2013 showed significant discrepancies, leading to the conclusion that the time series are unreliable factor in making monthly revenue projections. Charts 1 and 2 show deviations of actual collection of indirect taxes in 2013 in relation

to monthly distribution of collection in 2012 and related to a three-year weighted average distribution of collection in the period 2010-2012.

Chart 1

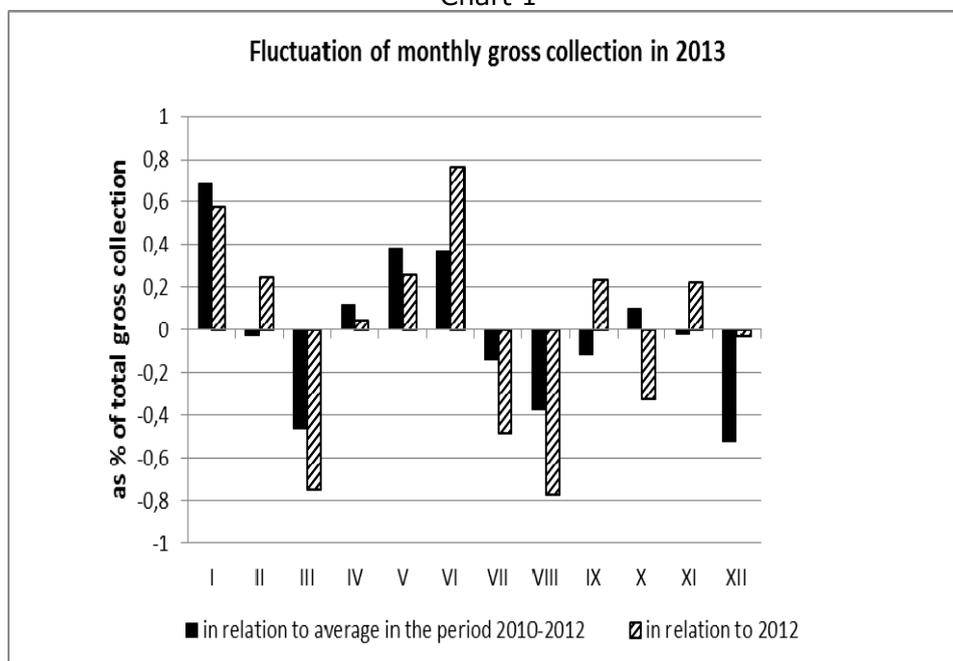
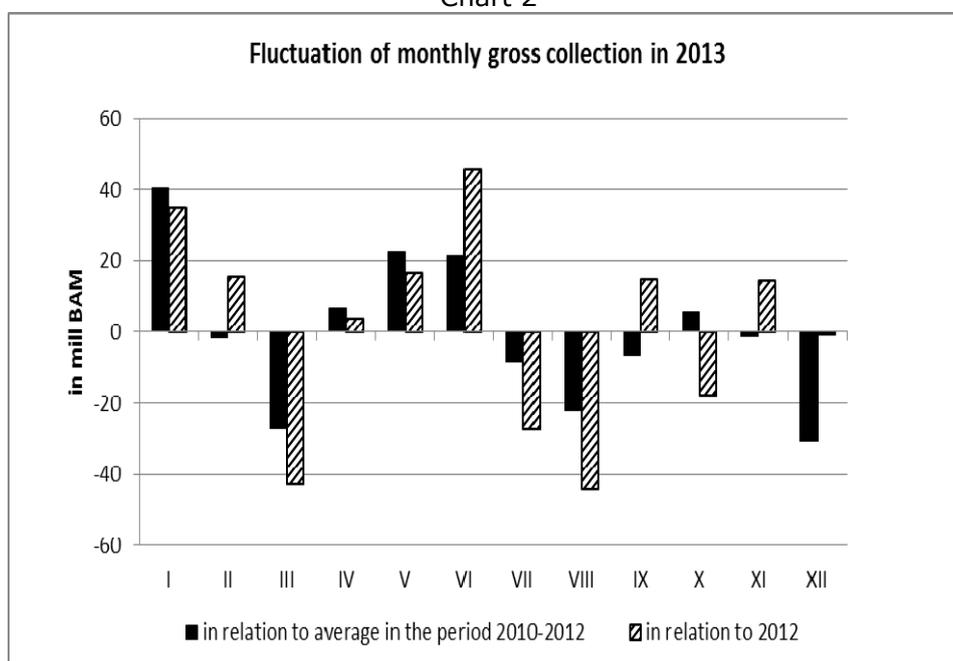


Chart 2



For example, the use of a three-year weighted average monthly distribution of collection to total gross collection in 2013 would produce a nominal monthly surplus or deficit in the range of -30

million KM to +40 million KM, while the application of the collection scheme from 2012 would produce variations at the level of the month of  $\pm$  45 million KM.

## FACTORS

The unpredictability of the monthly revenue collection from indirect taxes in B&H is affected by several factors. Some of them are related to the concept of VAT and, as such, they determine the method of designing revenue in all countries, while others are related to the specifics of a particular country, with regard to the legal framework, the administration of taxes or market structure of the economy.

### *Concept of VAT*

- All-phase character of VAT: The fundamental characteristics of VAT as an all-phase net sales tax show that the fractional character of the payment of VAT at each stage of sale cycle strongly determines the monthly VAT collection in each country. In fact, stronger fluctuations may affect small and open economies, such as B&H, in the import stage. The share of VAT levied on importation in gross collection of indirect taxes in 2014 amounted to 42%. Fluctuations in VAT collection on the import is the result of dynamics of planned investments, which include increasing imports of equipment or facilities, and which depend on the dynamics of funding and withdrawal of loans and other external factors, such as obtaining building and other permits, licenses and approvals from various levels of government, completion of tenders and other legal circumstances, whose occurrence cannot be accurately predicted. All-phase character of VAT, as opposed to a single-phase sales tax collected at the retail sale, includes a manufacturer in the VAT system as well. Compared to a stable seasonal pattern of retail, and thus sales tax collection, the collection of VAT in production stages depends on business plans, contractual matters, the dynamics of procurement/import from suppliers, investments, characteristics of the economy branches, especially when it comes to construction and process industries.
- System of a chain deduction of input VAT: The basic definition of VAT as a net all-phase sales tax implies that fluctuations in the VAT collection are also determined by the realization of the right to deduct input VAT, the dynamics and the way of its realization (refund or tax credit). Mentioned characteristics significantly differentiate the scheme of VAT collection from the scheme of sales tax collection, in which the payment is final.

### *Rules for refunds and tax credits*

The right given to taxpayers to choose between refunds and tax credits brings the uncertainty in gross and net collection of VAT, but of other indirect taxes as well, if tax credits are used to pay liabilities arising from customs duties, excise or road taxes. The time horizon of liquidating tax credit is long, which leads to the fact that a large part of the effects of changes in taxpayers' behavior, in terms of turning to tax credits, is realized in the next fiscal year. Secondly, it is impossible to anticipate a pace of liquidation of tax credits by current tax obligations because it depends on business policy and future sales of taxpayers. Finally, changes in taxpayer behavior cannot be anticipated in advance if they are motivated by VAT frauds.

Speeding up refund requests can be a sign of problems with maintaining liquidity in some companies, which are unknown to fiscal authorities, but also the signal for VAT frauds. Anyway, flexible deadlines for refund payments (in B&H 30 and 60 days) represent a factor that strongly affects fluctuations in net VAT collection at the level of the month or quarter. Namely, the request

for refund presented for the month "t" shall be submitted in the month "t+1", and its realization may be in the month "t+2" or "t+3", if not a predominant exporter, from which implies that refund requests submitted in one quarter affect net collection in the other.

Particular issues are VAT refunds on the basis of international projects, since the expression of the effects of these projects in the first place depends on the dynamics of contracting projects and realization of investment in all aspects (financial, technical, legal, human resources). Secondly, the effects of these projects are manifested in various stages dynamically and in different ways: first, there is a payment of VAT taxpayers in the intermediate stages of the project or upon importation, thereby affecting the gross VAT collection, and then, after the approval of the request, refund payments occur. Deadlines for refund payments are not prescribed, which makes it impossible to fully anticipate refunds which to a large extent determine the net VAT collection.

#### *Administering refunds*

The scheme of the collection of VAT, and thus total indirect taxes, is largely determined by the dynamics of VAT refund payments, especially in B&H where VAT is a dominant source of revenue and refunds amount to a minimum of approximately 25% of the gross VAT collection.

The dynamics of the outflow is determined, on the one hand, by the amount paid on the Single Account, and on the other hand, (i) by the amount and deadlines of refund payments, (ii) by the amount of requests for refunds on the basis of international projects and (iii) by the amount and terms of external debt servicing. The statutory deadlines for VAT refund payments enable flexible management of outflows from the SA by the ITA. However, the ITA is obliged to take into account the timely securing funds for the repayment of external debt. For the ITA to meet statutory obligations (smooth repayment of external debt and refund payments to taxpayers within legal deadlines) it is necessary to carefully balance the inflow and outflow from the SA on those grounds. The movement of the refund scheme from one month to another, for example because it is about a single taxpayer with a large amount or if a large tranche of external debt is maturing which at maturity has priority in relation to a refund, can in the current month increase monthly net collection of VAT and indirect taxes for a few percentage points and decrease it in the next month.

The overview of deviations in monthly scheme of net and gross VAT collection in 2013 (Chart 3 and 4) indicates that (i) deviations are sharper than those of the total collection of indirect taxes, which indicates the importance of the other revenues (excise duties) and their scheme (ii) differences in deviations between gross and net VAT collection are a result of the action of VAT refund scheme.

For example, the use of a three-year weighted average monthly distribution of collection to gross VAT collection in 2013 would produce nominal monthly surpluses or deficits in the range of -10 million KM to +50 million KM, while the application to net VAT collection would produce monthly deviations in the range of -20 million KM to +30 million KM.

Chart 3

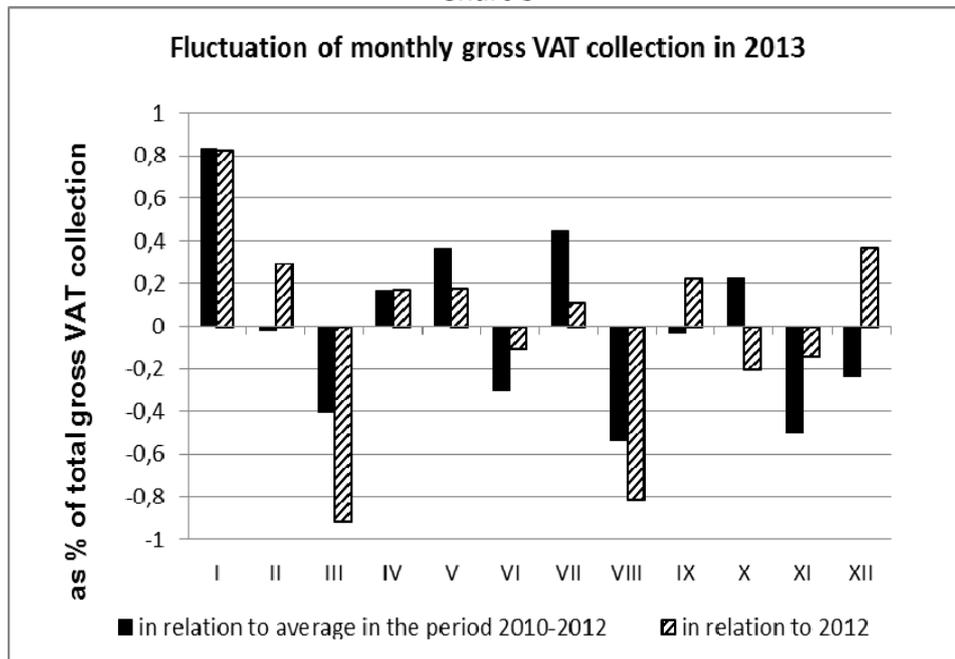
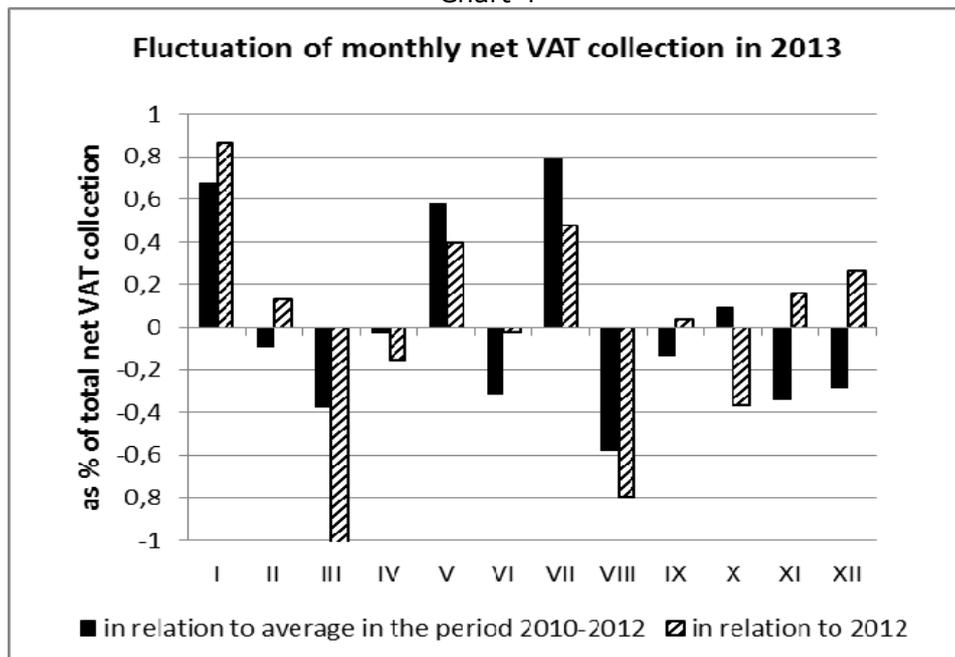


Chart 4



### The market structure of the economy

Studies have shown that in all countries a small number of large taxpayers paid significant portion of tax revenues<sup>1</sup>. Correlation between the market structure and revenue collection in B&H is especially noted in oil and tobacco industry, which is dominated by five large taxpayers. On the whole, six major taxpayers, representing 0,01%<sup>2</sup> of taxpayers have in 2013 paid 28,7% of net revenue from indirect taxes, i.e. 11,7% of VAT, 36,8% of road tax and 73,8% revenue from excise duties (Table 1). In fact, only two tobacco companies pay 60% of the total collected excise duties on tobacco.

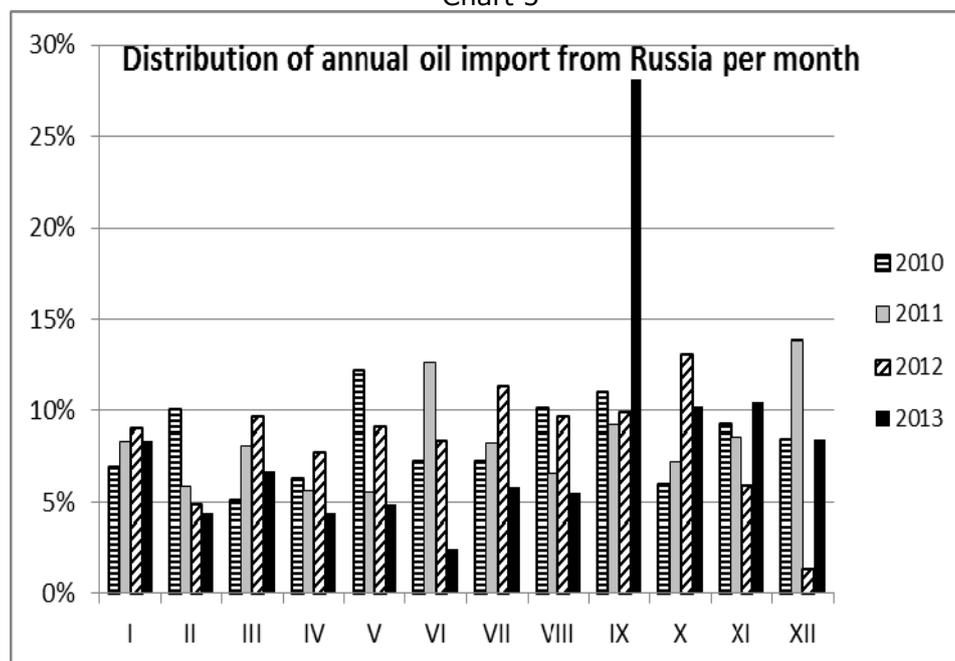
Table 1 Share of oil and tobacco industries in revenues from indirect taxes (2013)

	Oil industry	Tobacco industry	Total
Road tax	36,8%	0,0%	36,8%
Excise duties	16,4%	57,4%	73,8%
VAT	5,6%	6,1%	11,7%
Total indirect taxes	9,9%	18,8%	28,7%

- Oil industry

Domestic oil industry, represented by a single taxpayer, pays nearly 10% of revenue from indirect taxes. Given the shares in revenues from road taxes (36,8%) and excise duties (16,4%) it can be concluded that monthly schemes of collection of road taxes and excise duties largely depend on business policy of only one taxpayer.

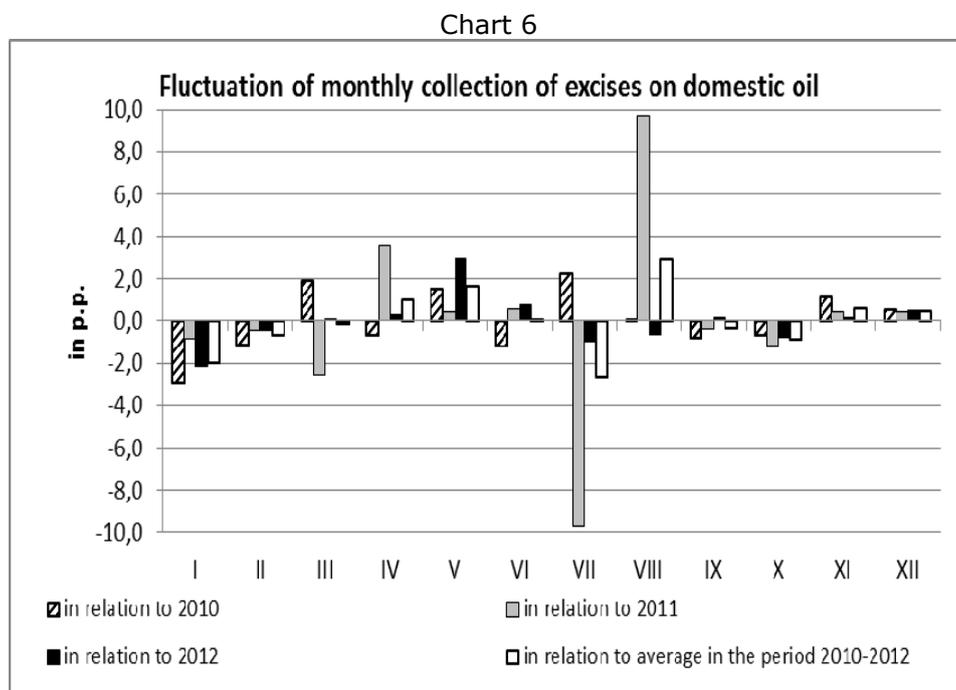
Chart 5



<sup>1</sup> According to research of the IMF (Ebrill et.al., „The Modern VAT“, p. 118) about 0,5% of companies in developing countries that were the subject of research pay at least 45% of circulation in the country, and thus taxes that are charged on goods and services.

<sup>2</sup> The number is calculated in relation to the number of VAT taxpayers on the day of 31 December 2013.

Since it is a process industry, decisions on overhaul of Refinery are significant for the revenue collection. Distribution of annual oil imports<sup>3</sup> from Russia per months (Chart 5) indicates strong fluctuations, which are further reflected in the collection of all types of revenues from indirect taxes.

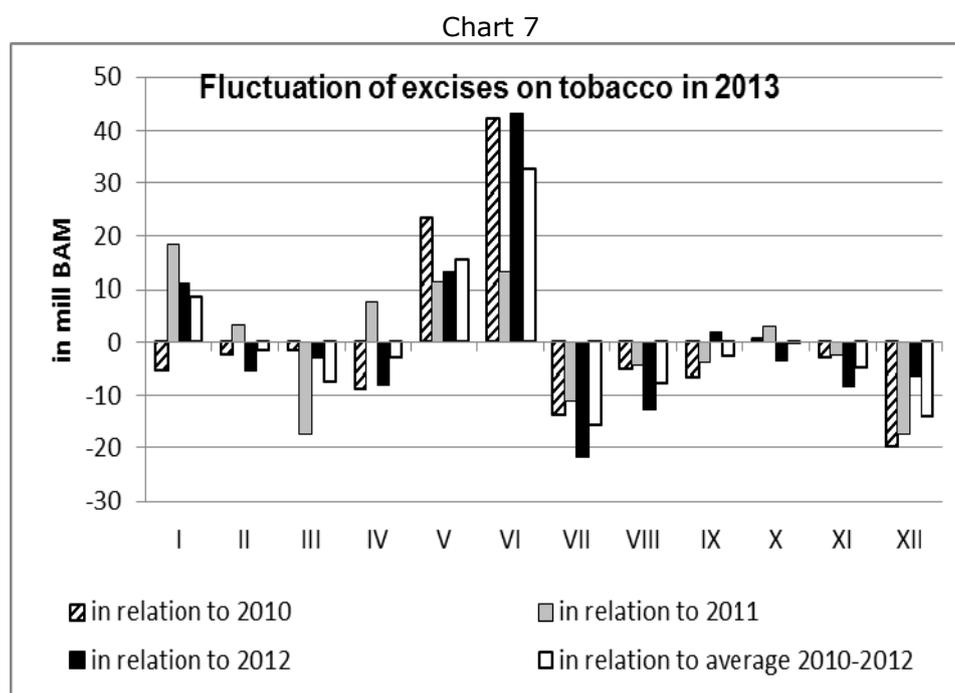


During the overhaul, which usually takes up to a month and a half, import drastically decreased. Reducing oil imports leads to a reduction in collection of customs duties and VAT on imports, which is then reflected on the collection of domestic VAT in the next month, which depends on available stocks of derivatives. After the overhaul is done there is a strong growth of oil import and thus the growth of VAT on import, which exceeds the liability for VAT in the country resulting in a refund. Domestic oil industry regularly chooses to use tax credits thus settling the obligations for excise duties (Chart 6) and road taxes. The moment of the usage of credit is linked to the moment of the decision making by the ITA. From all mentioned, it can be concluded that the decision to overhaul the Refinery produces a "domino effect" on the monthly collection of customs duties, gross and net VAT, excise duties and road taxes, which is impossible to anticipate in advance.

- Tobacco industry

Monthly fluctuations of collection of excise duties on tobacco in the past four years were strongly influenced by business policies of major tobacco companies before the increase in special excise duty, while the scheme of collection in 2013 was also affected by business policy of Croatian importers of cigarettes, which make about 30% of the market, before Croatia's accession to the EU. Rapidly narrowing of regular tobacco market led to a tightening of competition between import companies in the segment of prices and sales of certain brands of cigarettes and between import companies and domestic tobacco industry in the segment of cut tobacco sales. All this has resulted in strong monthly fluctuations in collection.

<sup>3</sup> Source: Agency for Statistics of B&H



Application of a three-year weighted average monthly distribution of collection of excise duties on tobacco to the collection in 2013 would produce nominal monthly surpluses or deficits in the range of -16 million KM to +33 million KM, while the application of the collection scheme of excise duties on tobacco from 2012 to the collection in 2013 would produce monthly surpluses and deficits in the range of -22 million KM to +43 million KM (Chart 7).

### BEST PRACTICES OF SELECTED COUNTRIES

We have analyzed the ways of reporting on a monthly collection of revenues from indirect taxes on a sample consisting of several developed EU Member States and neighboring countries.

**Croatia**<sup>4</sup> every month, among other things, publishes monthly executions of collection of all public revenues, including executions of all types of indirect taxes. The monthly report is structured in a way that *de facto* it represents a statistical review that contains the following columns:

- Annual revenue collection in the last three years
- Revenue collection in the quarter of the last year used for comparison with the same quarter of the current year
- Projection of the collection for the current year
- Collection in quarters of the current year
- Collection in the month of the current year for which the report is issued
- Cumulative collection in the current year
- Execution of cumulative collection in the current year compared to annual projections for the current year.

<sup>4</sup> Source: Ministry of Finance of Croatia

**Serbia**<sup>5</sup> within monthly bulletins issues reports on the execution of main types of revenues from direct and indirect taxes. Monthly reports represent the statistical series of consolidated annual execution of revenues in Serbia in the period 2005-2013, with the following columns for reporting for 2014:

- Annual collection of revenue in the period 2005-2012
- Revenue collection in the month for which a report is issued in 2013
- Total annual collection in 2013
- Collection for the reporting month in 2014
- Monthly index of collection 2014/2013.

Monthly reports are free from plan/projections of revenue and therefore from comparison of the current collection in relation to them.

Serbia also publishes quarterly revenue execution which gives comparative data on quarterly and cumulative collection in the previous and current year, with the calculation of the index growth. Quarterly reports exclude data on projections and the collection plan.

**Great Britain**<sup>6</sup> regularly publishes detailed reports on collection of indirect taxes, with special emphasis on analytics of VAT collection, presented in a single report (domestic VAT – gross, refunds and net; VAT on imports). Every month it provides a statistical overview of VAT collection on all of the above mentioned categories in the previous five years, while for the last year it gives monthly amounts for all categories<sup>7</sup>. At the end of the report the collection in the current year per months for each of these categories is given. In the report, except statistical data, projections or plans are not listed and comparisons of the current monthly collection with the collection in the same month of the previous year or in relation to the projections/plans were not given.

**Spain**<sup>8</sup> regularly publishes detailed monthly reports on collection of revenues from direct and indirect taxes, with brief analyses. Monthly reports include only current monthly collection compared to the previous year by all types of revenues and index of execution at the level of the month. Reports do not provide any cumulative data, comparison of cumulative collection or any information on projections and plans as well as their execution.

**Germany**<sup>9</sup> each month publishes reports on revenue execution including revenues collected by a federal level of government and federal provinces. Monthly report, for example for 2014, contains the following columns for each type of indirect tax revenues:

- Collection in the reporting month in 2014
- Index growth of the monthly collection in 2014 compared to the same month in 2013
- Cumulative collection in 2014
- Growth index of the cumulative collection in 2014 compared to the same period in 2013
- Estimates of the annual collection for 2014
- The estimated growth in 2014 compared to 2013.

Estimates of the annual collection are done by the Working Group for the assessment of tax revenue. Estimates from November 2013 of the Working Group are taken for monthly reporting in 2014.

<sup>5</sup> Source: Ministry of Finance of Serbia

<sup>6</sup> Source: HMRC

<sup>7</sup> Note: Form of the report is similar to the form used by the Central Bank of B&H for review of economic statistics.

<sup>8</sup> Source: Agencia Tributaria

<sup>9</sup> Source: Bundes Finanz Ministerium

## CONCLUSION

Analysis of the monthly planning issue of revenue collection from indirect taxes indicates the following facts:

- Narrowing of the planning horizon of the revenue collection with the standard annual horizon requires the development of macroeconomic projections for identical planning time horizon;
- Simulation performed on the collection from 2013, which entailed the creation of a monthly distribution of revenue collection from the available one-year historical series of data and three-year weighted monthly distributions, showed large monthly deviations in relation to the actual collection scheme, which entails the conclusion that the time series of data are not reliable basis for monthly planning of revenues;
- Analysis showed factors that affect large and unexpected monthly fluctuations, of which the most important are the concept of VAT, administration of refunds and influence of business policy of a small number of taxpayers on a large portion of revenue collected.

From the analysis of the best practice of monthly reporting in the selected developed EU Member States and key countries in the region it can be concluded that countries have no practice of monthly revenue planning or monitoring current collection compared to the plan. Projections and estimates of revenues, in the case of Germany and Croatia, are used in reports only as fiscal goals to be pursued, not as a standard of collection efficiency. Germany practice showed that the estimates of the special government body that deals with the tax revenue projections were taken as target projections.

## Consolidated reports

### Table 1 (Consolidated report: General Government)

Consolidated report includes:

- revenues and expenditures of the budget of Institutions of Bosnia and Herzegovina,
- revenues and expenditures of the budget of the Federation of Bosnia and Herzegovina, cantons, cantonal directorates for roads, municipalities and funds,
- revenues and expenditures of the budget of the Republika Srpska\*, directorates for roads/highways, municipalities and funds,
- revenues and expenditures of the budget of Brčko District and funds

### Table 2 (Consolidated report: B&H institutions, entities, SA)

Consolidated report includes

- revenues from indirect taxes collected by the Indirect Tax Authority on the Single Account,
- transfers from the ITA Single Account,
- revenues and expenditures of the institutions of Bosnia and Herzegovina,
- revenues and expenditures of the budget of the Federation of Bosnia and Herzegovina,
- revenues and expenditures of the budget of the Republika Srpska.\*

Report doesn't include unadjusted revenues collected on ITA SA.

*\*Includes: (A) Budget of the Republic and extra-budgetary resources recorded in Treasury General Ledger of the RS, (B) total foreign debt for the projects realized through municipalities and companies, and (C) Budget users who have their own bank accounts (including some foreign project implementation units established by ministries)*

**Preliminary report: General government, Q1 2014**

(in million KM)	Q1
<b>Revenue</b>	<b>2.652,8</b>
Taxes	1.352,3
Direct taxes	241,6
Taxes on income, profits and capital gains	212,7
Taxes on payroll and workforce	2,5
Taxes on property	26,3
Indirect taxes	1.109,1
Other taxes	1,6
Social security contributions	961,1
Grants	15,5
Foreign grants	14,6
Transfers	0,9
Other (non-tax) revenue	323,8
<b>Expenditure</b>	<b>2.656,8</b>
Expense	2.596,3
Compensation of employees	797,9
Use of goods and services	462,2
Social benefits	1.095,0
Interest	40,6
Interest payments to non-residents	21,5
Interest payments to residents	19,1
Subsidies	37,1
Grants, transfers	99,5
Other expense	64,0
Net acquisition of nonfinancial assets	60,5
Acquisition of nonfinancial assets	66,2
Disposal of nonfinancial assets	5,7
<b>Gross/Net operating balance (revenue minus expense)</b>	<b>56,5</b>
<b>Net lending /borrowing (revenue minus expenditures)</b>	<b>-4,0</b>
<b>Net financing = (Minus) Net lending /borrowing</b>	<b>-48,3</b>

Table 1

**Preliminary report: B&H Institutions, entities and SA, I-IV 2014**

(in million KM)	I	II	III	IV	Total
<b>Revenue</b>	<b>441,3</b>	<b>457,7</b>	<b>544,0</b>	<b>582,7</b>	<b>2.025,7</b>
Taxes	414,6	411,3	426,0	459,4	1.711,3
Direct taxes	23,5	27,5	56,6	42,8	150,3
Taxes on income, profits and capital gains	22,8	26,6	55,6	41,7	146,7
Taxes on property	0,7	0,8	1,0	1,1	3,6
Indirect taxes (net)	391,0	383,8	369,2	415,3	1.559,2
VAT	245,3	257,5	240,3	251,8	995,0
Excises	109,5	86,3	86,6	115,6	397,9
Road fee	22,2	20,6	20,2	27,1	90,2
Customs	12,8	18,3	20,7	19,3	71,1
Other indirect taxes	1,1	1,1	1,4	1,4	5,0
Other taxes	0,1	0,0	0,2	1,4	1,7
Social security contributions	0,0	0,0	0,0	0,0	0,0
Grants	1,7	0,4	7,9	0,5	10,6
Foreign grants	1,7	0,4	7,8	0,2	10,1
Transfers	0,0	0,0	0,1	0,3	0,4
Other (non-tax) revenue	25,0	46,0	110,1	122,7	303,9
<b>Expenditure</b>	<b>416,4</b>	<b>449,2</b>	<b>421,2</b>	<b>442,1</b>	<b>1.728,8</b>
Expense	414,4	435,5	416,5	434,1	1.700,5
Compensation of employees	124,7	126,6	130,5	125,6	507,3
Use of goods and services	12,9	30,8	30,9	26,5	101,1
Social benefits	52,5	54,1	65,3	53,6	225,5
Interest	5,9	10,4	17,3	9,4	43,0
Interest payments to non-residents	2,4	7,9	10,1	5,9	26,4
Interest payments to residents	3,4	2,5	7,2	3,5	16,6
Subsidies	2,1	6,5	5,1	8,3	22,0
Grants, transfers (including transfers from SA**)	211,1	200,7	161,9	207,8	781,5
Other expense	5,2	6,4	5,6	2,9	20,1
Net acquisition of nonfinancial assets	2,0	13,6	4,6	8,0	28,3
Acquisition of nonfinancial assets	2,2	14,2	5,0	8,7	30,1
Disposal of nonfinancial assets	0,1	0,6	0,4	0,8	1,9
<b>Gross/Net operating balance (revenue minus expense)</b>	<b>26,9</b>	<b>22,2</b>	<b>127,5</b>	<b>148,6</b>	<b>325,2</b>
<b>Net lending /borrowing (revenue minus expenditures)</b>	<b>24,9</b>	<b>8,5</b>	<b>122,9</b>	<b>140,6</b>	<b>296,9</b>

\*\* transfers from SA include unconsolidated transfers to BD, cantons, municipalities and road funds

Table 2