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TAX BURDEN IN SLOVAKIA AND EUROPEAN UNION COUNTRIES

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Abstract. Tax burden expresses how high is the tax ratio or what part of gross domestic product is created by paid taxes and contributions. This article presents data on tax revenue and its relationship to gross domestic product in Slovakia and the European Union. Data of Eurostat and OECD Tax Database serve as the base for analysis, the reporting period presents years 2002–2011.

Key words: taxes, social security contributions, gross domestic product, tax-to-GDP ratio

INTRODUCTION

Tax burden and its comparison among individual countries is one of the most discussed topics. Generally the tax burden presents ratio between taxes and contributions on gross domestic product (GDP). The tax-to-GDP ratio is the sum of all taxes and social security levies in relation to nominal gross domestic product. It shows the percentage of GDP the general government uses to finance its tasks. In Slovakia, the tax-to-GDP ratio covers all the levied taxes, as well as the public social security contributions to sickness, retirement, permanent disability, unemployment, health, guarantee insurance and reserve fund.

The before mentioned tax burden of insurance character might be considered as additional tax levy, hereinafter called as tax quota II [Bojňanský, Tóth and Serenčéš 2012].

Slovakia's current tax system consists of following taxes:

1. Direct taxes
   a) personal income tax,
   b) corporate income tax,
   c) local taxes
      – real estate tax, dog tax, tax on the use of public space, accommodation tax, vending machine tax, non-gainful (entertaining) slot-machine tax, tax on the

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entry into and parking of a motor vehicle in a historical part of the city, nuclear facility tax,
   - taxes for municipal waste and small construction waste,
   - motor vehicle tax.

2. Indirect taxes
   a) value added tax (VAT),
   b) excise taxes.

AIMS AND METHODS

The aim of submitted article presents the assessment of development and structure of tax burden in Slovakia, countries of European Union (EU-27) and euro area (EA-17), as well as their comparison.

In order to compare correctly tax burden within individual countries, it is essential to be furnished by comparable data which are precisely set by methodology used in involved countries. Therefore authors derived from the data secured by OECD Tax Database and Eurostat summarized in the 2002–2011 period. The last data needed for article during the process of its preparing were for 2011, resp. 2010 relating to the structure of tax revenues.

Tax-levied burden, resp. compound tax quota, is the indicator, which is expressed by Eurostat methodology as the ratio of taxes and obligatory social contributions on GDP. Eurostat methodology defines the compound tax quota by the following items pursuant to the classification ESA 95 (The European system of national and regional accounts):

$$TQII = D2 + D5 + D91 + D611 + D612 - D995$$

where: $D2$ – taxes on production and import,
$D5$ – current taxes on income, wealth etc.,
$D91$ – capital taxes,
$D611$ – actual social contributions,
$D612$ – voluntary employers' actual social contributions,
$D995$ – capital transfers from general government to relevant sectors representing taxes and social contributions assessed but unlikely to be collected[1].

Main method of assessment is the comparable method of these data in the reporting period.

RESEARCH RESULTS AND DISCUSSION

The European Union is, taken as a whole, a high tax area. In 2011, the overall tax ratio in the EU-27 member states amounted to 40.1% in the GDP-weighted average, more than the levels recorded in the United States, Canada and New Zealand (Fig. 1). The tax level in the EU is high not only compared to those countries, but also compared to other

[1] Data for Slovakia are not available for the reporting period.

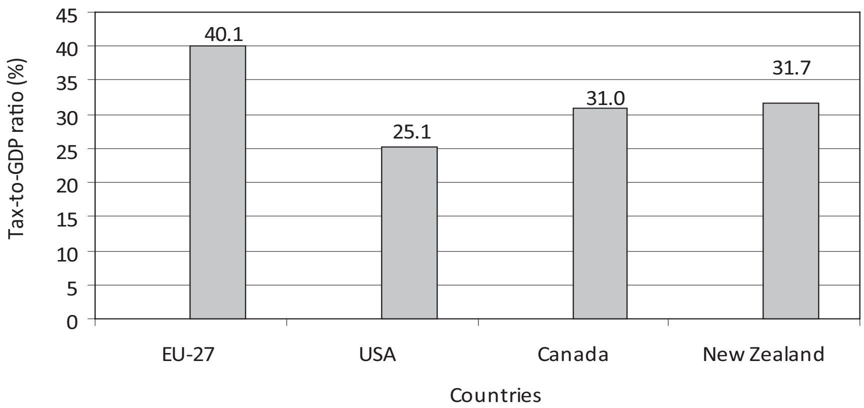

Fig. 1. Overall tax-to-GDP ratio (%) in the EU, USA, Canada and New Zealand (2011)
Source: OECD Tax Database.

advanced economies. Among the major non-European OECD members, only Canada and New Zealand have tax ratios that exceed 30% of GDP. As for less developed countries, they are typically characterised by relatively low tax ratios.

When looking at the evolution of tax revenues in the last decade, the effects of the economic and financial crisis on tax revenues from 2007 onwards are striking. From its last spike in 2006 in the EU-27 the ratio of tax revenue to GDP decreased by 1 percentage point to 39.6% in 2010, while the ratio for the EA-17 decreased by 0.9 percentage point of GDP from its peak of 41.2% in 2007 to 40.3% in 2010. This means that both in the euro area and in the European Union, tax revenue in terms of GDP has fallen to its lowest point in the period from 2002 onwards (Fig. 2).

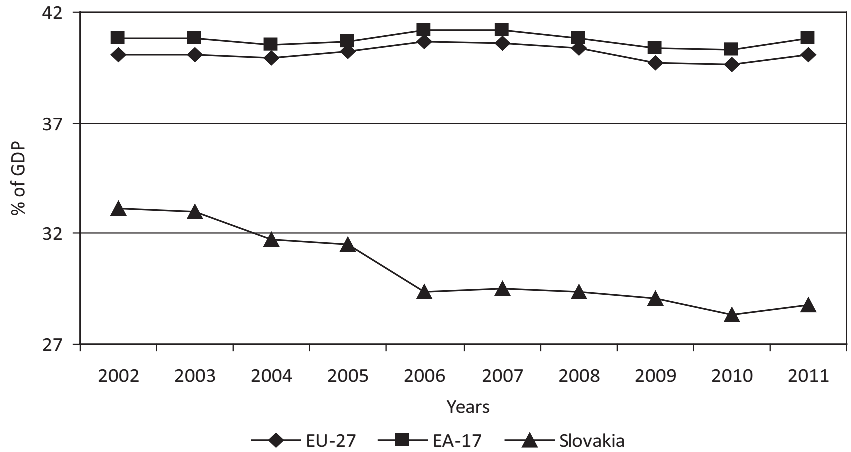

Fig. 2. Total tax revenue in the EU-27, euro area (EA-17) and Slovakia as a percentage of GDP (2002–2011)
Source: Eurostat database.

In 2011, tax revenues in the European Union increased both in absolute terms and as a ratio to GDP. As a ratio of GDP, tax revenues accounted for 40.1% of GDP in the European Union. This represents an increase of 0.5 percentage point, following four years of decline in terms of GDP. Tax revenues in the euro area followed a similar trend and increased from 40.3% of GDP in 2010 to 40.8% of GDP in 2011. The pattern for EU-27 and EA-17 is fairly similar in recent years. Both in the EU-27 and in the EA-17, the drop in terms of GDP was most marked between 2008 and 2009. In 2010, tax revenues in terms of GDP were at their lowest point in the 2002–2011 period.

The ratio of tax revenue to GDP in the EA-17 is slightly higher than in the EU-27. Higher tax burden in EA-17 in comparison with EU-27 is influenced by the fact that the original member states are mainly within EA-17, in which higher tax percentages are as in new member states.

Slovakia's tax ratio has decreased significantly over the last decade. It stood at 33.1% of GDP in 2002, whereas the 28.8% of GDP in 2011 falls short of the EU-27 average by 11.3 percentage points. This declining trend of Slovakia's tax ratio is a consequence of the overall cut in corporate and personal income tax rates.

In 2011 total tax burden within the European Union was in the range from 26.4% GDP to 48.6%. As Figure 3 shows, the ratio of tax revenue to GDP in 2011 was highest in Denmark (48.6%), Belgium (46.7%) and France (45.9%). The lowest shares were recorded in Lithuania (26.4%), Bulgaria (27.2%) and Latvia (27.7%). Among the countries which have joined the European Union since 2004, Slovenia and Hungary had the highest tax revenue-to-GDP ratios at 37.5% and 37.1% of GDP. Even so, tax revenues in Slovenia are still 2.6 percentage point of GDP lower than in the EU-27. Among the countries which joined the European Union before 2004, Ireland (30.4%), Spain (32.4%) and Greece (34.9%) record the lowest revenues from taxes. From the geographical point it can be concluded that the lowest tax burden is within countries of Central and Eastern Europe and vice versa – the highest tax burden is traditionally reported in the state of Western Europe and northern states.

Concerning the comparison of Slovakia with the average of European Union it can be stated that the tax burden in the Slovak Republic with the value 28.8% on GDP in 2011 is markedly lower than the ratio of taxes on GDP in the European Union with value 40.1% and in euro area with ratio 40.8%. Tax burden in Slovakia is the fifth lowest on GDP in the European Union, lower amount of taxes on GDP is levied in Romania, Latvia, Bulgaria and Lithuania. When comparing it with other countries, it is inevitable to take into account the facts that contributions to the second retirement pillar are not included in tax income. As regards these are not contributed to private funds, are not classified as income of public resort.

As Figure 4 shows, income tax present the lowest part of tax revenues in EU-27. Indirect taxes (VAT, excise taxes) take a first place in EU-27 and they present 13.6% of GDP. Social security contributions (13.1%) and direct taxes (12.9%) follow them. In EU-17 state repositories finance mainly social security contributions, presenting 14.8% of GDP, indirect taxes (13.4%) and direct taxes (12.1%). Differences between old and new European Union member states derive from the different conception of social state and tax system. Traditional social economics of Germany and France markedly influence the resulting ratio of contributions on GDP in EU-17. In both countries social security contributions present more than 15% of GDP together with the Czech Republic, so they

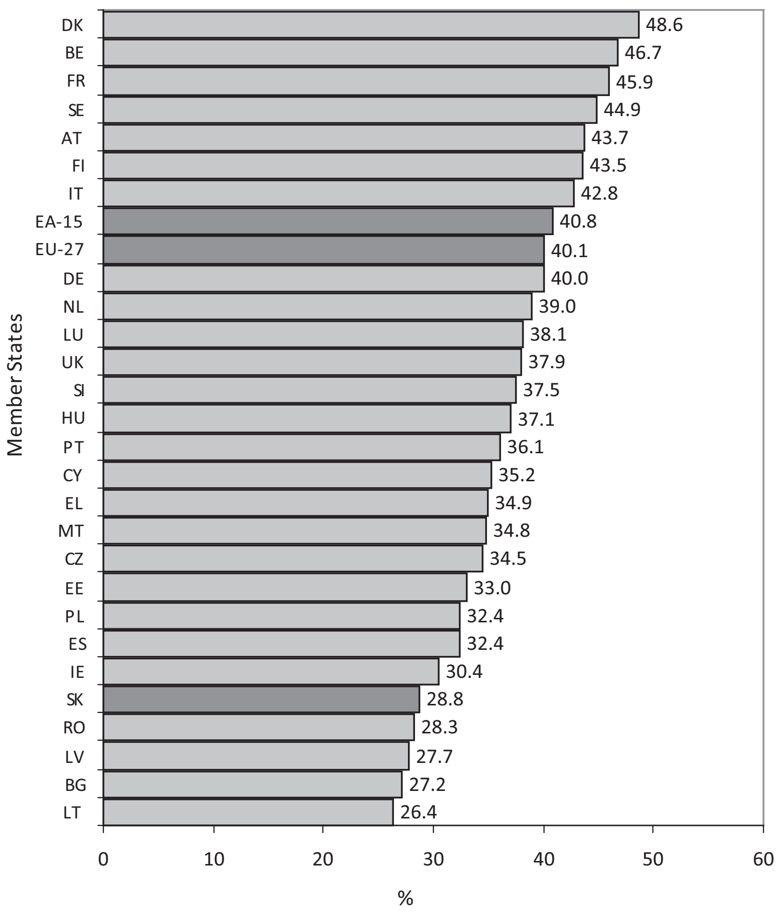

Fig. 3. Ranking of total revenue by EU member states in 2011 as a percentage of GDP
Source: Eurostat.

reach the top of European chart. Trend of decreasing indirect taxes and conception of equal tax is widely spread mainly in new member states. This decreases the ratio of direct taxes as well as total tax revenues.

In 2010 in Slovakia, indirect taxes raised 10.5% of GDP, 3.1 percentage points below the EU-27 average. Accounting for 37.2% of total tax receipts, they play a much more important role in Slovakia than direct taxes (19.1% of total revenues). Not surprisingly therefore, direct tax revenue is only 5.5% of GDP compared to a 12.9% of EU-27 average. Slovakia marked the third lowest ratio of direct taxes in EU-27. The share of social security contributions in total tax revenue is 43.7 % in 2010 – the second highest value in the European Union. The ratio of tax revenues from social security contributions to GDP has decreased over the recent years by 2.3 percentage points, from 14.6 % in 2002 to 12.3 % in 2010. It was decreasing from 2002 to 2007 and started growing from 2008 onwards, but still not reaching the level from 2002. The decrease was mainly driven by

Fig. 4. Structure of tax revenues in EU-27, EU-17 and Slovakia (2010)
Source: Eurostat.

reduction of employers' social security contributions and, since 2005–2006, the introduction of a "second pillar" fully-funded pension scheme, as contributions to privately managed funds are not booked as government revenues.

MAIN FEATURES OF SLOVAKIA'S TAX SYSTEM

Personal income tax

The introduction of the 19% flat tax rate in 2004 has superseded the previous system of progressive rates. The new tax law has scrapped the majority of exceptions, exemptions and deductions. In 2009, an employee tax credit was introduced. It is a form of negative income tax which is paid to low income employees. As of 1 January 2011, the basic personal allowances can be claimed only with respect to aggregate income from employment, business activities and independent professional activities. The amount of the basic personal allowance and the relevant ceilings are generally based on the amount of the living minimum applicable on 1 January of the tax year, which is €194.58 for 2013.

From 1 January 2013 the progressive taxation of personal income with two tax rates (19 and 25%) came into force in relation to the amount of tax base. From this part of tax base, exceeding 176.8-times applicable subsistence minimum, tax will present 25%. Simultaneously the particular tax rate was set up for selected constitutional members in 5%.

Income is defined broadly as any benefit in cash or in kind. Aggregate income includes income from employment, occupational pensions, business, rent, capital and other occasional activities. Capital gains are generally included in aggregate income with exception of income from the sale of immovable property owned for at least five years. Gains from the sale of movable property owned for at least five years. And gains from the sale of shares and other securities up to a total annual amount equal to five times the living minimum. No tax deductions are allowed and even deductions for contributions to supplementary pension insurance and pension savings schemes are abolished as of 1 January 2011. There are two kinds of tax allowances: the basic allowance available to every taxpayer and the supplementary allowance for a spouse whose income, after deducting social security contributions, is below the basic allowance level. From 1 January 2013 temporarily till 1 January 2016 new tax allowance is set up – the sum of paid non--obligatory contributions to pension savings, in limited amount. This tax allowance can be applied firstly for tax year 2012, while the calculated sum cannot exceed €943.20.

A final withholding tax of 19% is levied on income from participation certificates, vouchers and investment coupons; interest on bank deposits and current accounts; income from private life or pension insurance and payments from the supplementary pension insurance.

Corporate taxation

The corporate tax rate was reduced from 25 to 19% with effect from 1 January 2004. Exceptions and exemptions such as tax holidays, tax breaks, individual tax bases and special tax rates applicable under the old tax regime have been eliminated from the corporate income tax law, providing for more transparency. A number of amendments have been made to the tax law in order to adapt it to EU regulations on direct taxation. Effective at 1 January 2013 the tax rate of legal entities increases from 19 to 23%.

Taxable income is calculated based on the income computed according to the accounting rules and is adjusted for several items for tax purposes. For depreciation purposes, a straight-line or a specific accelerated depreciation method may be used. Capital gains are included in the company's taxable ordinary income. Income from participation certificated and interest on corporate bonds, bearer deposit certificates, deposit accounts or current bank accounts are subject to a 23% withholding tax (the corporate tax rate with effect from 1 January 2013). Tax losses may be carried forward for up to seven years. No group taxation provisions exist; all entities are taxed separately.

VAT and excise duties

Prior to the tax reform in 2004 Slovakia applied two VAT rates: a standard rate of 20% and a reduced rate of 14%. As of 2004, a unified 19% VAT rate was introduced for all goods and services and as of 2011, it is temporarily increased to 20%. In 2007, a 10% reduced rate was reintroduced; applicable to medicines, certain other medical and pharmaceutical products, and, since 2008, to books. Zero rate applies to intra-Community supply of goods, export of goods, provision of services consisting of work on movable assets returned to a third country, transport services and passenger transport, and services directly related to import and export of goods.

Higher excise duties on natural gas are collected and excise duties on electricity and coal were introduced as from July 2008 in application of the EU energy taxation directive. In January 2010 a reduction of the excise duties on diesel fuel was approved, which would take diesel prices in line with those in Austria, but below those in Hungary and the Czech Republic. In 2011 only minor changes were introduced in the legislation relative to excise duties on alcohol, mineral oil, tobacco products, electricity, coal and natural gas.

For the excise duties on alcohol a unique taxation was established, that depends on the percentage of the alcohol in the final product.

Social contributions

Both employees and employers have to pay contributions for pension insurance, health insurance, disability insurance and sick leave insurance, as well as unemployment insurance (Table 1, Table 2). Additionally, employers have to pay for accident insurance, to a solidarity fund and to the guarantee fund. A contributions ceiling applies to all types

Table 1. Contributions paid by the employee (valid for 2013)

Contributions	Contributions percentage of gross monthly salary	Minimum computation base [€]	Maximum computation base [€]	Minimum contributions [€]	Maximum contributions [€]
Health insurance	4.00	337.70	3 930.00	13.50	157.20
Retirement	4.00	337.70	3 930.00	13.50	157.20
Permanent disability	3.00	337.70	3 930.00	10.13	117.90
Sickness	1.40	337.70	3 930.00	4.72	55.02
Unemployment	1.00	337.70	3 930.00	3.37	39.30
Total contributions	13.40	–	–	45.22	526.62

Source: Act No. 461/2003 Coll. on Social Insurance, Act No. 580/2004 Coll. on Health Insurance.

Table 2. Contributions paid by the employer (valid for 2013)

Contributions	Contributions percentage of gross monthly salary	Minimum computation base [€]	Maximum computation base [€]	Minimum contributions [€]	Maximum contributions [€]
Health insurance	10.00	337.70	3 930.00	33.77	393.00
Retirement	14.00	337.70	3 930.00	47.27	550.20
Permanent disability	3.00	337.70	3 930.00	10.13	117.90
Reserve fund	4.75	337.70	3 930.00	16.04	186.67
Sickness	1.40	337.70	3 930.00	4.72	55.02
Accident insurance	0.80	337.70	no limit	2.70	no limit
Unemployment	1.00	337.70	3 930.00	3.37	39.30
Guaranteed fund	0.25	337.70	3 930.00	0.84	9.82
Total contributions	35.20	–	–	118.84	1 383.35[a]

[a] Amount includes accident insurance assessment base of €3,930, but the amount may be higher, as the basis of assessment of the employer to pay the premium for accident insurance is limited to a maximum height.

Source: Act No. 461/2003 Coll. on Social Insurance, Act No. 580/2004 Coll. on Health Insurance.

of insurance except accident insurance. Part of social contributions (9 percentage points) is accumulated in private pension funds. As of 1 January 2011, non-monetary benefits to an employee and income of executive considered as taxable employment income are also subject to social and health insurance contributions.

CONCLUSIONS

The European Union is the area with high tax burden. higher than the tax burden e.g. in USA, Canada, Japan. In 2011 total tax burden was on the level 40.1% of GDP in EU-27. Slovakia within European Union belongs to countries with the lowest tax burden, which reached the value 28.8% of GDP in 2011, together with Romania, Bulgaria, Latvia and Lithuania in the European Union. Following the before mentioned. the ratio of redistribution of public budget belongs to the lowest in Slovakia. It is questionable whether the tax burden in Slovakia should be higher.

The increase of tax ratio on GDP can be performed by two different ways; whether by increasing the tax burden or increasing the effectiveness of tax and contribution administration. As regards the consolidation of public finance, effective at 1 January 2013, the amendment of income tax act was set up in Slovakia. The main task is to secure the additional incomes to state budget. The following arrangements were taken into account:

- set up of progressive taxation of personal incomes with two tax rates 19% and 25%, while higher tax rate will be applied for the individuals with superior income,
- more strict conditions to be applied for tax allowances as regards spouse,
- restriction of possibility to apply tax bonus only for so called active income,
- restriction of applying lump expenses for individuals – entrepreneurs, setting up their maximum value not exceeding €5,040 per year,
- cancellation of applying lump expenses as regards income from rent,
- increasing the tax rate for legal entities from 19 to 23%.

Concerning the high dependence of development of economics in the Slovak Republic from foreign investments, the increasing of tax rate for legal entities could have negative influence on the economy in the Slovak Republic. It could lead to decreasing of Slovakian competition towards surrounding states in the process of acquisition of foreign investments. As well as the increased tax rate for employees with superior income can have negative impact on the economy in Slovakia. Plenty of employees operate in companies, which manage to compensate the outage of net wages by increasing wages. Many of them can be motivated to establish its own company or set up in business by higher tax rate for personal income. In some companies such type of cooperation is not possible, this might cause the leaving of qualified employee to another company or abroad. However the minority of employees pays the majority of income taxes in the period before the increase in tax rate, therefore the higher tax rate cannot be considered as sympathetic.

The second possibility of increasing the tax ratio on GDP is the increase in effectiveness of tax and contribution collection. Authors believe that as the effect of tax evasion is quite significant in Slovakia, the fight against tax evasions is the alternative against increasing in taxes. Except for positive effects for budget it is an inevitable step towards the increasing the quality of business environment.

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OBCIĄŻENIA PODATKOWE W SŁOWACJI I INNYCH KRAJACH UNII EUROPEJSKIEJ

Streszczenie. Obciążenie podatkowe wskazuje, jak wysoki jest współczynnik opodatkowania lub jaka część produktu krajowego brutto jest tworzona z opłaconych podatków i składek. W artykule przedstawiono dane dotyczące dochodów podatkowych i ich związek z PKB na Słowacji oraz w innych krajach Unii Europejskiej. Podstawę do analiz stanowiły dane z zakresu podatków, udostępnione przez Eurostat oraz OECD. Za okres sprawozdawczy przyjęto lata 2002–2011.

Słowa kluczowe: podatki, składki na ubezpieczenia społeczne, PKB, udział podatków w PKB

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