

# REFLECTION OF THE CHANGE IN VAT RATES ON SELECTED HOUSEHOLD EXPENDITURES IN THE CZECH REPUBLIC AND THE SLOVAK REPUBLIC (2007–2013)

Jan Široký<sup>1</sup>, Regína Střílková<sup>1</sup>, Anna Bánociová<sup>2</sup>, Veronika Zlaczká<sup>2</sup>

<sup>1</sup> Department of Accounting, Faculty of Economics, VŠB – Technical University of Ostrava, 17. listopadu 15/2172, 708 33 Ostrava, Czech Republic

<sup>2</sup> Department of Finance, Faculty of Economics, Technical University of Košice, Nemcovej 32, 040 01 Košice, Slovak Republic

## Abstract

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Member States of the European Union in the period of years 2007–2013 increased the rate of value added tax several times in an attempt to consolidate public budgets. While the Czech Republic is a typical representative of country changing VAT rates several times, Slovakia made practically only one change in the VAT rate. On the other hand, the Slovak Republic is a country where the reduced rate is applied only to the minimum of commodities. Changes in VAT are naturally reflected in household expenditures which are analyzed by the consumer basket, whose composition is also a subject of changes. Another factor that has an impact on household spending is swapping commodities between the rates of VAT.

The aim of this paper is, based on the analytic-synthetic methods, to determine how are these changes differently manifested in the Czech Republic and the Slovak Republic in reference to the share of commodity consumption included in the standard and reduced VAT rates and to the exempt transactions, and, in particular, to determine how they affected the VAT burden of the hypothetical household in both countries.

**Keywords:** VAT, VAT rates, consumer basket, the Czech Republic, the Slovak Republic, household expenditures, tax burden

## INTRODUCTION

Value added tax which was introduced both in the Czech Republic and in the Slovak Republic on 1 January 1993 (and changed significantly in 2004 when both countries joined the European Union) is characterized as a general indirect non-duplicate turnover tax imposed on the final consumption of goods and services, which is the only permitted general tax on consumption in the European Union. Its development is significantly specific and it is very difficult to compare it with the history of other taxes (in more detail Tait, 1988 or Crossen, 1998).

Although it is the most harmonized tax in the EU, it gives the Member States are given sufficient flexibility in certain areas, especially in the case of the amount of rates. The issue of the amount of VAT rates is a matter that is not clearly resolved even in theory (eg. Schenk, Oldman, 2007). As the basic model of VAT, in the practice of the EU after complex discussions (in more detail Bogetic, Hassan, 1993), was determined the model with two types of tax rates: standard and reduced.

Rules for the application of the value added tax rates in the EU Member States (Eur-lex, 2006) are described from Article 93 to Article

129 of the Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax. In these basic rules it is determined that the services and goods are normally a subject to the standard rate of VAT which must not be less than 15%. Member States may also select either one or two reduced rates which must not be less than 5%. The reduced rates shall apply only to a limited set of goods and services listed in Annex III of the VAT Directive. The exceptions, however, are even here (European Commission, 2014). It is obvious, that the existence of multiple VAT rates with number of exceptions helps to the possibility of tax evasions (Bánociová, Novikmecova and Zlaczká, 2014).

The aim of this paper is to analyze and assess the impacts of the increase in VAT rates in the Czech and Slovak Republic in the period of years 2007–2013 using the example of a hypothetical household whose expenditure is exactly equal to the consumer basket in the Czech and Slovak Republic. The lower limit of the analyzed period was chosen by reason of the first signs of the economic crisis outset; the upper limit represents the latest published data on consumer spending.

## MATERIALS AND METHODS

### Methodology

Authors work with a substantiate thesis that the economic crisis has deepened public budget deficits and the government, attempting to reduce it, among other things, uses increase in VAT rates as a tool. This increase (Mihóková, Jakubíková, 2013) must thereafter necessarily be reflected in household expenditures, which can be documented on the selected household. When determining the absolute household expenditures on VAT, it is necessary to include in analyses not only the changes in the VAT rate, but also the changes in the individual segments of the consumer basket in terms of the proportion of the burden with the standard rate, reduced rate and exempt transactions, potential shift of commodities and other relevant factors, especially a revision of the consumer basket itself. Expected outcomes of the research should confirm the own research assumptions that (i) there is increase in the share of commodities in the consumption basket with standard tax rate burden, (ii) households spend more funds on VAT and (iii) in the Slovak Republic, there will be differences in (i) and (ii) lower than in the Czech Republic thanks to the chosen rates.

The methodology of the research can be represented by equation (1).

$$\Delta CE_{VAT} = f(\Delta R_{VAT}, \Delta Ch_{VAT}, \Delta C, \Delta CB, \Delta O), \quad (1)$$

where  $\Delta CE_{VAT}$  is the change of the selected household expenditures on VAT in the analyzed period,  $\Delta R_{VAT}$  is the change of tax rates,  $\Delta Ch_{VAT}$  is the change arising from the transfer of commodities

between the reduced and standard rate,  $\Delta C$  is the change of cash expenditures,  $\Delta CB$  is the change of the consumer basket and  $\Delta O$  is the change of other factors (e.g. the marginal propensity to savings) from which the authors abstract.

To achieve the objective, the analytic-synthetic methods were used. In the introductory part of the research a descriptive method was used, which was used in the study of the EU legislation, the Czech Republic legislation and the Slovak Republic legislation. In the next part, the effects of changes in tax expenditures of the selected household were evaluated using a comparison, deduction and subsequent synthesis. Although both countries use different currencies, required results are made by relative indicators (usually a percentage), so there is no need to recalculate the exchange rate.

All calculations were performed in the Excel spreadsheet. Due to the required extent of paper, it is not possible to indicate here the summary tables with calculations (only the consumer basket in the Czech Republic itself includes 730 items and in the Slovak Republic 709 items). Detailed calculations can be sent at request at the mentioned authors' email addresses.

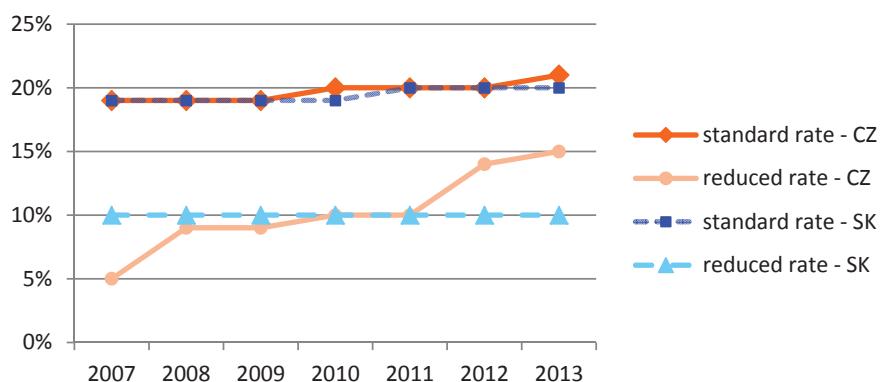
### The Evolution of Value Added Tax Rate

When solving the consequences of the economic crisis, most countries chose "easy" mechanism to increase the revenue side of public budgets in a relatively simple step of the VAT rate increase. As a result, there have been unprecedented shifts in VAT rates which virtually continue up to the present (Schellekens, 2013 or European Commission, 2014).

In the examined period of years 2007–2013, a total of 27 changes in the VAT standard rate were realized in the EU Member States, whereas these changes took place in 17 EU Member States (in more details Široký, Střílková, 2014). The largest increase of the standard rate was recorded in Hungary (by 7 percentage points) and Romania and Spain (by 5 percentage points), on the contrary in 10 countries (BE, BG, DK, FR, LU, MT, DE, AT, SI and SE) the standard rate remained unchanged. In the above mentioned period a total of 15 changes in the reduced VAT rate were realized, whereas these changes took place in 9 EU Member States. The largest increase of the reduced rate was recorded right in the Czech Republic (by 9 percentage points), on the contrary in 17 countries the reduced rate stayed unchanged (DK has an uniform rate).

The possibility of the tax rate increase (almost arbitrarily) which results only from the lower rate limit, was applied from the surveyed countries especially in the Czech Republic, while Slovakia changed the tax rate in the examined period practically only once.

In the Czech Republic, in 2007 the standard VAT rate was at 19%, resp. reduced rate at 5%, other changes occurred in 2008 (19%, resp. 9%)



1: *The evolution of VAT rates in the Czech Republic and in the Slovak Republic in the period of years 2007–2013*

Source: Own calculation. The chart does not show the 6% rate in the Slovak Republic which was applied in 2009 and 2010 for the agricultural products direct sale and which, thanks to the negligible share of the total market, is not relevant for the purposes of this paper.

in 2010 (20% resp. 10%) and in 2012 (20%, resp. 14%) and since 2013 the rate has been at 21%, resp. 15% (The Collection of Laws of the Czech Republic, 2013). The Slovak Republic reintroduced the reduced VAT rate of 10% on selected goods (before that, the uniform tax rate was of 19%) in 2007. In 2009, the reduced VAT rate of 6% was introduced exclusively for agricultural products direct sale for the two-year period. Owing to the influence of the crisis, in 2010 there was an increase in the basic rate of VAT from 19% to 20% for the transitional period, until the public administration deficit falls below 3% of GDP. Changes in VAT rates in both countries are illustrated in Fig. 1 (The Collection of Laws of the Slovak Republic, 2013).

### Evolution of the Composition of the Consumer Basket and Household Expenditures

Consumer basket is designed to describe the structure of “hypothetical” household consumption. This, naturally, cannot exist in practice, because it would have to consume just the average expenditures of all households in the Czech Republic (the methodology in more details at Czech Statistical Office, 2010). The consumer basket includes food goods (food, beverages and tobacco), non-food goods (clothing, furniture, household equipment, cosmetics and small goods, goods for transport and leisure time, personal care products, etc.) and services (repair, of housing, household operations, health, welfare, transport, leisure time, education, catering and accommodation, personal care and financial services) in the international classification in the following basic items: (01) Food and non-alcoholic beverages, (02) Alcoholic beverages, tobacco, (03) Clothing and Footwear, (04) Housing, water, electricity, gas and other fuels, (05) Furnishings, household equipment and routine household maintenance, (06) Health, (07) Transport, (08) Communication, (09) Recreation and Culture,

(10) Education, (11) Restaurants and hotels, (12) Miscellaneous goods and services.

Structure of the consumer basket is created in both countries according to the instructions provided by the international classification COICOP which is identically used in the national accounts both in the Czech Republic and in the Slovak Republic.

Both countries, however, use a differentiated approach to the frequency of changing the consumer basket.

While in the Czech Republic the consumer basket had three compositions in the examined period (for the years 2007–2009 it was compiled from household budget statistics for 2005, in the years 2010–2011 it was based on data from Household Budget Survey 2008 and in the years 2012–2013 it was based on data from Household Budget Survey 2011), in the Slovak Republic there were annual changes of the weights of individual items of the consumer basket during the analyzed period. This fact is reflected also in the development of the weights of the main groups. As illustrated in the table in the paper Annex, the largest weight in each year of the examined period in both countries accounted for the category Housing, water, electricity, gas and other fuels. On the contrary, the lowest weight in the consumer basket accounted for the category Education.

The weights of individual items in the consumer basket of both analyzed countries are illustrated in the table annexed at the end of the article.

To achieve the objective of the research, it was also necessary to determine the evolution of the hypothetical household expenditures which, of course, contain expenses including the value added tax. Data are shown in Tab. I.

## I: Development of the hypothetical household expenditures in the Czech and Slovak Republic

<b>CZ</b>		<b>SK</b>	
<b>Year</b>	<b>Expenditures in total (CZK)</b>	<b>Year</b>	<b>Expenditures in total (EUR)</b>
2007	239 000	2007	4 224.60
2008	256 729	2008	4 538.16
2009	261 984	2009	4 268.28
2010	263 229	2010	4 230.12
2011	266 283	2011	4 455.12
2012	268 580	2012	4 490.28
2013	272 502	2013*	4 525.44

\*Preliminary estimate

Source: Czech Statistical Office, 2014, Statistical Office of the Slovak Republic, 2014

## RESULTS

For the determination of individual items according to the criteria for their inclusion in the standard tax rate, reduced tax rate and in the tax exempt to total consumer basket, it is needed to assign the applicable VAT rate to the individual items of the consumer basket. This assignment is the result of the authors' self-analysis, covering all 730 items of the consumer basket in the Czech Republic, resp. all 709 items of the consumer basket in the Slovak Republic.

In the following relations (2) to (7),  $RR_{\%}$  is the share of commodities in the consumer basket subjected to the reduced tax rate;  $SR_{\%}$  is the share of commodities in the consumer basket subjected to the standard tax rate.  $EXM_{\%}$  represents the share of consumer basket items exempt,  $r$  is the reduced rate of tax,  $s$  is the standard rate of tax, and numbers 01 to 12 are the corresponding items of the consumer basket according to commodity classification.

The calculation procedure in the Czech Republic is shown by equations (2) to (4).

$$_{CZ}RR_{\%} = 01 + 04_r + 05_r + 06_r + 07_r + 09_r + 11_r + 12_r. \quad (2)$$

$$_{CZ}SR_{\%} = 02 + 03 + 04_s + 05_s + 06_s + 07_s + 08_s + 09_s + 11_s + 12_s. \quad (3)$$

$$_{CZ}EXM_{\%} = 04_{1-(r+s)} + 06_{1-(r+s)} + 07_{1-(r+s)} + 08_{1-(r+s)} + 09_{1-(r+s)} + 10 + 12_{1-(r+s)}. \quad (4)$$

Throughout the analyzed period, the reduced VAT rate was imposed on all commodities included in item 01, the standard VAT rate was imposed on all goods in items 02 and 03 and the entire item 10 was exempted. For the other items (04–09, 11 and 12) it was necessary to determine what part belonged to the appropriate level of taxation, which was additionally also complicated by some amendments of the Value Added Tax Act (The Collection of Laws of the Czech Republic, 2012) which resulted in some cases in a transfer of certain goods between categories of VAT rate. The mentioned values were

calculated using the weighted arithmetic average, where the weights are the consumptions by the consumer basket of the hypothetical household.

The calculation procedure in the Slovak Republic is shown by equations (5) to (7).

$$_{SK}RR_{\%} = 06_r + 10_r + 12_r. \quad (5)$$

$$_{SK}SR_{\%} = 01 + 02 + 03 + 04_s + 05 + 06_{1-(s)} + 07 + 08_s + 09_s + 10_s + 11 + 12_s. \quad (6)$$

$$_{SK}EXM_{\%} = 04_{1-(s)} + 08_{1-(s)} + 09_{1-(s)} + 10_{1-(r+s)} + 12_{1-(r+s)}. \quad (7)$$

In the Slovak Republic, the process is much simpler. Throughout the analyzed period, the standard VAT rate was imposed on all commodities included in items 01, 02, 03, 05, 07 and 11. Some of commodities in items 04, 08 and 09 are exempt from VAT. Commodities in item 06 were burdened by both standard and reduced VAT rate. Other items (10, 12) contained commodities burdened by both standard and reduced VAT rate and also commodities exempt from VAT.

For the availability of detailed calculations see last sentence in chapter 1 Introduction.

The Tab. II shows the obtained results by equations (2) to (4) in the Czech Republic and by equations (5) to (7) in the Slovak Republic for each year of the analyzed period in both analyzed countries.

All tables are also, for better illustration, expressed by figures.

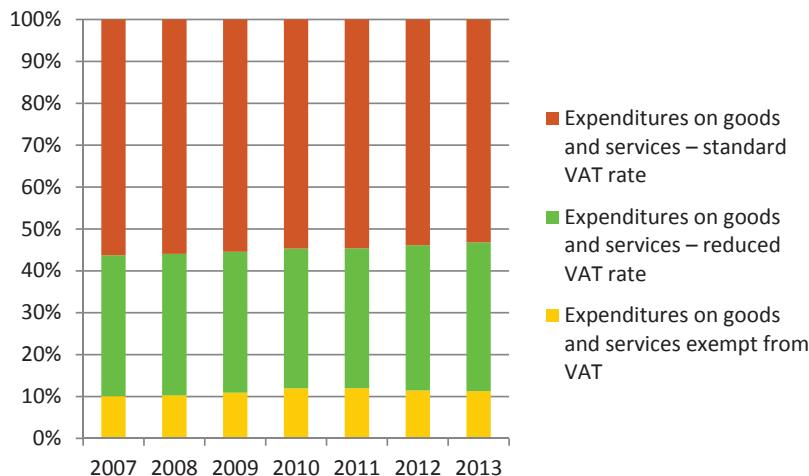
Tab. II and the graphical representation (Fig. 2) show that the largest share of hypothetical household expenditures belongs to the commodities taxed at the standard rate and that the lowest share of expenditures belongs to goods and services that are exempt from VAT. This fact is practically constant throughout the period. Values expressed in a percentage achieve the maximum difference of two percentage points.

The same Tab. II and also the graphical representation (Fig. 3) show that the largest share of hypothetical household expenditures in the Slovak Republic belongs to commodities

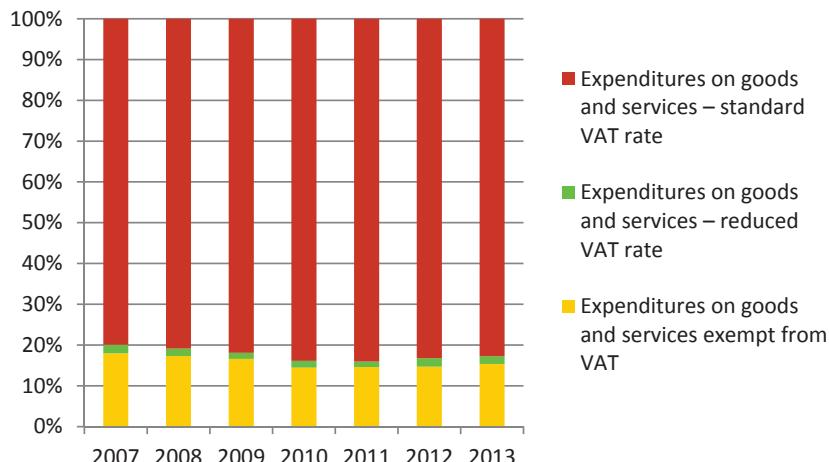
## II: Percentage composition of the consumption basket according to the VAT rate in CZ and SK (in %)

	2007	2008	2009	2010	2011	2012	2013
<b>CZ</b>							
Exempt from VAT	17.39	17.39	17.39	18.74	18.74	19.83	19.83
Reduced rate	28.35	28.42	28.84	29.21	29.21	27.63	27.37
Standard rate	54.26	54.19	53.77	52.05	52.05	52.54	52.78
<b>SK</b>							
Exempt from VAT	17.96	17.29	16.61	14.47	14.60	14.70	15.35
Reduced rate	2.12	1.86	1.48	1.64	1.33	2.09	1.91
Standard rate	79.92	80.85	81.91	83.89	84.07	83.21	82.74

Source: Own calculation



2: Share of commodities in total expenditures according to the type of the tax rate in CZ  
Source: Own calculation.



3: Share of commodities in total expenditures according to the type of the tax rate in SK  
Source: Own calculation.

taxed at the standard rate of VAT. The smallest share of expenditures belongs to commodities taxed at the reduced rate of VAT. Share of commodities exempt from VAT in the period of years 2007–2010 declined. In the following years there was a slight increase on share of these commodities exempt from VAT. A similar development was

also recorded at commodities taxed at the reduced VAT rate. In the share of goods and services taxed at the standard rate of VAT in the period since 2007 to 2011 there was an increase in every year.

In the next step of the research, absolute values of the Czech and Slovak hypothetical household expenditures on commodities with a definite type

## III: Households expenditures according to the type of tax rate

Year	Expenditures on goods and services exempt from VAT	Expenditures on goods and services – reduced VAT rate	Expenditures on goods and services – standard VAT rate	Total Expenditures
CZ (in CZK)				
2007	24 141	80 388	134 470	239 000
2008	26 422	86 658	143 648	256 729
2009	28 598	88 166	145 221	261 984
2010	31 442	87 841	143 946	263 229
2011	31 939	88 908	145 436	266 283
2012	30 815	93 026	144 739	268 580
2013	30 769	96 867	144 866	272 502
SK (in EUR)				
2007	758.76	89.53	3 376.32	4 224.60
2008	784.63	84.48	3 669.05	4 538.16
2009	709.12	62.95	3 496.21	4 230.12
2010	612.10	69.52	3 548.49	4 230.12
2011	650.63	59.41	3 745.08	4 455.12
2012	660.14	93.83	3 736.31	4 490.28
2013	694.76	86.50	3 744.18	4 525.44

Source: Own calculation

## IV: Amount of VAT paid in the Czech Republic and in the Slovak Republic

Year	VAT paid in the price of purchased commodities – reduced rate	VAT paid in the price of purchased commodities – standard rate	Total tax paid	Ratio of tax on total expenditures in %
CZ (in CZK)				
2007	3 826	21 475	25 301	10.59
2008	7 158	22 941	30 099	11.72
2009	7 282	23 192	30 474	11.63
2010	7 985	23 996	31 981	12.15
2011	8 082	24 244	32 326	12.14
2012	11 424	24 128	35 552	13.24
2013	12 631	25 149	37 780	13.86
SK (in EUR)				
2007	8.95	641.50	650.45	15.40
2008	8.45	697.12	705.57	15.55
2009	6.29	664.20	670.49	15.71
2010	6.95	674.21	681.17	16.10
2011	5.94	749.02	754.96	16.95
2012	9.38	747.26	756.60	16.85
2013	8.65	748.84	757.49	16.74

Source: Own calculation

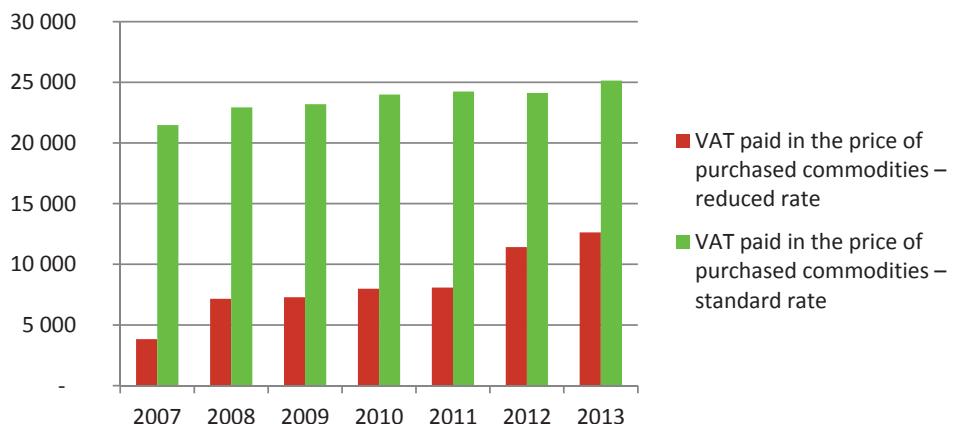
of VAT rate were calculated (RR, SR, EXM), which is illustrated in the Tab. III.

In the last step, absolute household expenditures on the VAT (Tab. IV) were calculated from the partial results, likewise in division according to the type of tax rate by the reduced or the standard rate of VAT.

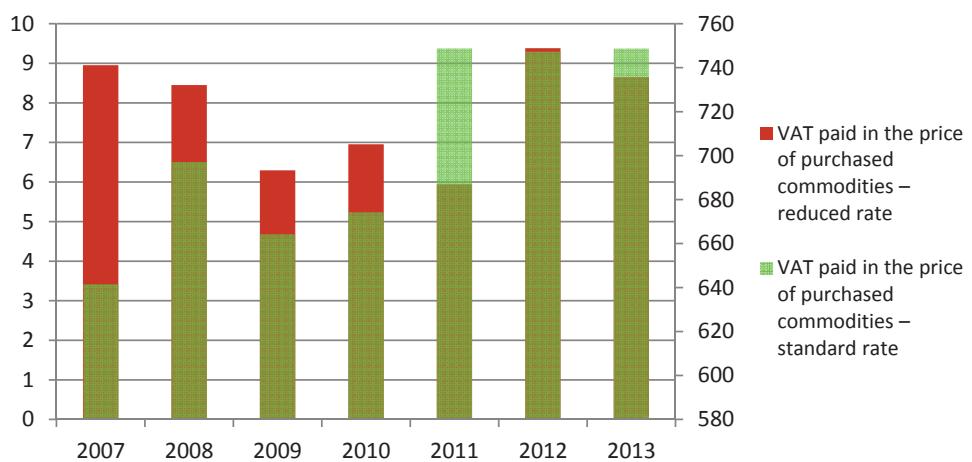
Tab. IV shows obvious unstable trend of increasing tax paid in the Czech Republic, which is illustrated by Fig. 4. Total amount of VAT paid for the commodities taxed at the standard rate in 2013 was 25 149 CZK, which is an increase compared

to year 2007 in the amount of 3 675 CZK, i.e. by 17.1%. The total amount of tax paid in 2013 was 37 780 CZK, which is by 12 479 CZK more, i.e. by 49.3% more than in 2007.

The same Tab. IV and Fig. 5 show a different situation in the Slovak Republic, when during the first three years of the examined period, the amount of household expenditures on commodities taxed at the reduced VAT rate declined. A significant increase in the amount of VAT paid at the reduced rate, in comparison with the previous year, was recorded



4: Evolution of the amount of VAT paid in a hypothetical household expenditures in the Czech Republic (CZK)  
Source: Own calculation.



5: Evolution of the amount of VAT paid in hypothetical household expenditures in the Slovak Republic (EUR)  
Source: Own calculation.

in 2012. The total amount paid at the standard VAT rate in 2013 was 748.84 EUR, which is an increase of 107.34 EUR compared to year 2007, i.e. by 16.73%. This total amount of standard VAT rate paid increased since 2009. In the last analyzed year (i.e. 2013) the amount of total household expenditures on VAT stood at 757.49 EUR, which is, in comparison with year 2007, an increase by 107.04 EUR, i.e. by 16.46%.

## DISCUSSION AND CONCLUSIONS

Value added tax, whose pros and cons are constantly being discussed (Zodrow, 2006 or also summarized in Eur-lex, 2010), is in a period of economic crisis used as an instrument of economic policy, especially when the change of the tax rate is used by individual EU Member States as a factor helping to the improvement of public budget deficits. This phenomenon has also affected the Czech Republic which amended the Value Added Tax Act a total of 22 times (!) in the monitored period (The Collection of Laws of the Czech Republic, 2012), at the same time four

changes were made in tax rate (one in standard rate and three in reduced rate). The Slovak Republic amended in the monitored period the Value Added Tax Act a total of 15 times (Codes of Slovak Republic, 2013) and there was made only one change in tax rate (standard rate). Agricultural products direct sale is not counted in.

Since VAT is included in the price of goods or services purchased by a consumer that pays the tax within the payment of his purchases, this tax, of course, burdens the consumption of goods and services purchased by households (James, Nobes, 2010). The impact of changes in VAT as a consumption tax is, in principle, differentiated, when compared to changes in direct taxes (in more detail Nerudová, Široký, 2010).

Assumption (i) about increasing share of commodities in the consumption basket burdened with standard VAT rate has not been confirmed neither in the Czech Republic nor in the Slovak Republic. In research of the selected (hypothetical) household and in the monitored period of years 2007–2013, somewhat surprising continuous increase in the proportion of exempt

items in the consumer basket in the Czech Republic was found out, while the uniform trend in the Slovak Republic was not detected in any of VAT rates (standard rate, reduced rate, exempt supplies).

Research assumption (ii), according which authors expected that households spend more funds on VAT, was seen in both analyzed countries, while in the Czech Republic, there was seen significantly higher growth (in absolute terms by 12 479 CZK, which represents an increase of the share of tax paid on total expenditures by 3.27 percentage points), in the Slovak Republic, the growth was in absolute terms by 107.04 EUR, which is also reflected in the increase of the share of tax paid on total expenditures by 1.34 percentage point. Significantly higher increase in the share of tax paid in the Czech Republic was caused mainly due to enormous increase in the reduced VAT rate.

Assumption (iii), that in the Slovak Republic there will be, due to tax rates, at the beginning of the analyzed period the differences in the results smaller than in the Czech Republic, was confirmed. The Slovak Republic thanks to the absence of

significant changes in tax rates or shifts of commodities in VAT rates, achieved a stable share of the VAT paid on total expenditures of hypothetical household. However, due to the fact that in the Slovak Republic around four fifths of commodities belong in the category burdened with the standard VAT rate (in 2007 it was 79.92%, in 2013 it was 82.74%), the Slovak hypothetical household pays larger amount of VAT on the total expenditures (in 2013 the ratio tax to total expenditures was by 2.88 percentage points higher than in the Czech Republic). This difference, however, as a result of rate increase in the Czech Republic, was decreased dramatically (in 2007, the difference was 4.81 percentage points).

Authors are aware of the limitation of their research which lies mainly in the real absence of the hypothetical household, in the length of seven years of the analyzed period and exclusion of other influences (e.g. Kolář, Vítek, Pavel *et al.*, 2005), but the results obtained and the expected follow-up research may serve as information for the players of economic policy as well as a contribution to the theory of tax incidence.

## SUMMARY

This paper examines the influence of changes in the rates of value added tax on household spendings in the Czech Republic and the Slovak Republic in the period of years 2007–2013. As established households in which the research was conducted, were taken in both countries the hypothetical households, for which the authors have chosen households that consume such a mix of commodities which just corresponds to a consumer basket in the relevant year. The result of the research is a finding that there is an increasing share of VAT exempt commodities in the consumer basket in the Czech Republic, while in the Slovak Republic there can not be seen any uniform trend of the share of commodities included in the standard rate, reduced rate, resp. exempt from VAT in the consumer basket of hypothetical households. Another conclusion is the fact that in both countries households spend more funds on VAT, while in the Czech Republic the growth is significantly higher than in the Slovak Republic, which is caused mainly by raising the reduced VAT rate. The Slovak Republic, on the one hand, achieves a stable share of the paid value added tax on expenditures of the hypothetical household; on the other hand, the hypothetical household in SK pays higher percentage of the paid value added tax on total expenditures.

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V: Appendix: Composition of the consumer basket in analyzed period of years 2007–2013 in the Czech and the Slovak Republic

COICOP classification	The categories of the consumer basket	CZ					SK				
		2007-2009	2010-2011	2012-2013	2007	2008	2009	2010	2011	2012	2013
0	Total	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
01	Food and non-alcoholic beverages	162.63	170.33	149.82	158.03	160.55	160.68	184.45	175.73	163.45	166.98
02	Alcoholic beverages, tobacco	81.72	85.99	96.01	45.22	42.49	43.45	43.75	49.73	49.24	49.59
03	Clothing and Footwear	52.43	47.21	35.93	43.61	45.09	44.82	46.23	44.22	43.95	43.08
04	Housing, water, electricity, gas and other fuels	248.29	253.40	280.35	282.97	281.75	282.37	253.83	273.77	277.23	279.40
05	Furnishings, household equipment and routine household maintenance	58.06	55.19	57.97	54.19	57.86	58.33	70.55	65.04	65.37	63.97
06	Health	17.86	25.00	23.07	25.73	26.32	29.28	37.11	43.33	43.42	45.09
07	Transport	114.10	114.89	105.01	94.82	91.25	90.87	78.72	79.13	84.89	79.36
08	Communication	38.73	39.88	36.08	37.15	35.89	35.78	37.61	37.59	36.59	35.54
09	Recreation and Culture	98.66	93.68	90.38	79.86	78.23	78.95	84.63	84.67	82.96	83.17
10	Education	6.18	7.77	7.78	15.13	16.25	15.63	14.56	16.97	16.81	17.77
11	Restaurants and hotels	58.39	44.26	48.56	69.45	72.24	68.74	68.61	63.18	62.48	60.83
12	Miscellaneous goods and services	62.96	62.40	69.03	93.83	92.08	91.12	79.95	66.64	73.59	75.22

## REFERENCES

- BÁNOCIOVÁ, A., NOVIKMECOVÁ, M., ZLACZKÁ, V. 2014. Effectiveness of tax audit and VAT tax collection in Slovakia. In: *Teoretické a praktické aspekty veřejných finančních*. Praha, VŠE v Praze, 1–6.
- BOGETIĆ, Ž., HASSAN, F. 1993. *Determinants of Value-Added Tax Revenue*. Washington: The World Bank.
- CNOSEN, S. 2003. How Much Tax Coordination in the European Union? *International Tax and Public Finance*, 10(6): 625–649.
- CZECH STATISTICAL OFFICE. @2010. *Consumer Price Indices (User's methodological manual)*. [Online]. Available at: [http://www.czso.cz/eng/redakce.nsf/i/cpi\\_users\\_methodological\\_manual/\\$File/manual\\_isc\\_2013en.pdf](http://www.czso.cz/eng/redakce.nsf/i/cpi_users_methodological_manual/$File/manual_isc_2013en.pdf). [Accessed: 2014, January 10].
- CZECH STATISTICAL OFFICE. @2012. *Inflation, Consumer Prices*. [Online]. Available at: [http://www.czso.cz/eng/redakce.nsf/i/inflation\\_consumer\\_prices\\_ekon](http://www.czso.cz/eng/redakce.nsf/i/inflation_consumer_prices_ekon). [Accessed: 2014, January 30].
- ČESKO. 2013. Zákon č. 235/2004 Sb., o dani z přidané hodnoty, ve znění pozdějších předpisů. In: *The Collection of Laws of the Czech Republic*. Available at: <http://www.sbirka.cz>. [Accessed: 2014, May 11].
- EUROPEAN COMMISSION. @2014. *VAT Rates Applied in the Member States of the European Union*. [Online]. Available at: [http://ec.europa.eu/taxation\\_customs/resources/documents/taxation/vat/how\\_vat\\_works/rates/vat\\_rates\\_en.pdf](http://ec.europa.eu/taxation_customs/resources/documents/taxation/vat/how_vat_works/rates/vat_rates_en.pdf). [Accessed 2014, February 10].
- EUR-LEX. @2006. *Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax*. [Online]. European Union. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:347:0001:0118:EN:PDF>. [Accessed: 2014, February 10].
- EUR-LEX. @2010 COM(2010)695: *Green Paper. On the future of VAT Towards a simpler, more robust and efficient VAT system*. [Online]. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ>.
- do?uri=COM:2010:0695:FIN:EN:PDF. [Accessed 2014, February 10].
- JAMES, S., NOBES, C. 2010. *The Economics of Taxation. Principles, Policy and Practice*. 10<sup>th</sup> Edition. London: Fiscal Publication.
- KOLÁŘ, P., VÍTEK, L., PAVEL, J. et al. 2005. *Zdanění a neutralita*. Praha: Eurolex Bohemia.
- MIHÓKOVÁ, L., JAKUBÍKOVÁ, E. 2013. Dopad súčasnej krízy na vývoj a štruktúru verejných príjmov Slovenskej a Českej republiky. *Acta Aerarii Publici*, 10(1), 33–45.
- NERUDOVÁ, D., ŠIROKÝ, J. 2009. The Principle of Neutrality: VAT/GTS v. Direct Taxation. In: LANG, M., MELTZ, M., KRISTOFFERSSON, E., Eds. 2009. *Value Added Tax and Direct Taxation. Similarities and Differences*. Amsterdam: IBDF.
- SCHELLEKENS, M. 2013. *European Tax Handbook 2013*. Amsterdam: IBFD.
- SCHENK, A., OLDMAN, O. 2007. *Value Added Tax. A Comparative Approach*. New York: Cambridge University Press.
- ŠIROKÝ, J., STŘÍLKOVÁ, R. 2014. Changes in the VAT burden on expenses of a selected household in the Czech Republic (2007–2012). In: *Teoretické a praktické aspekty veřejných financí*. Praha: Oeconomia, 1–6.
- STATISTICAL OFFICE OF THE SLOVAK REPUBLIC. 2014. *Základná štruktúra hrubých peňažných výdavkov domácností*. [Online]. Available at: [http://www.statistics.sk/pls/elisw/objekt.send?uic=2324&m\\_sso=2&m\\_so=40&ic=42](http://www.statistics.sk/pls/elisw/objekt.send?uic=2324&m_sso=2&m_so=40&ic=42). [Accessed: 2014, June 10].
- TAIT, A. 1988. *Value Added Tax. International Practice and Problems*. Washington, D.C.: IMF.
- SLOVENSKO. 2013. Zákon č. 222/2004 Z. z. o dani z pridané hodnoty, v znění neskorších predpisov. In: *The Collection of Laws of the Slovak Republic*. Available at: <http://www.zbierka.sk>. [Accessed: 2014, May 30].
- ZODROW, G. R. 2006. Tax Competition and Tax harmonization in the European Union. *International Tax and Public Finance*, 13(2/3): 425–451.

## Contact information

Jan Široký: jan.siroky@vsb.cz  
 Regína Střílková: regina.strilkova@vsb.cz  
 Anna Bánociová: anna.banociova@tuke.sk  
 Veronika Zlaczká: veronika.zlaczka@tuke.sk