

# The impact of tax reform in Slovakia on creation of profit in companies

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**Abstract—** This paper examines the relationship of tax policy of state and the creation of profit in selected tax subjects. The aim of paper is in the context of more than a decennial development of economy of Slovakia to verify and to the numerical rich material to show whether the tax reform in 2004, which was declared as pro-business oriented by then government, significantly affected the financial results of companies.

**Keywords—** tax policy, profit/loss of company, financial analysis, economic crisis

## I. INTRODUCTION

Radical tax reform was realized in the conditions of SR in 2004 that brought many changes in the system of taxation of corporate income (profit). Income tax act no. 595/2003 coll. as later amended which passed on the 4th of December 2003 and became active on the 1st of January 2004 simplified the legislation of income taxation and established the same tax rates (flat tax) for individuals and corporations with the purpose to tax every type of income the same way without regard to the kind of economic activity. Various exceptions, special regimes or tax exemptions which have been making the tax system disarranged and creating the space for tax evasions have been abolished.

This tax reform was at the time before and after its incorporation the subject for many discussions and written opinions of various reviewers dealing with the impact on tax collection for state budget and behavior of entrepreneurs as well. We decided to take a look at the impact of this reform in the context of decennial development of economy of Slovakia (2000-2010) in hindsight after subsidence of primary emotions, especially through comparing and analyzing economic results of companies, joint stock companies and limited liability companies.

## II. TAX POLICY IN THE CONTEXT OF DEVELOPMENT OF MACROECONOMIC ENVIRONMENT

Income tax rate and its corresponding tax collection as an income for state budget is just only one of many macroeconomic parameters which determine the business environment and hence the behavior of business entities in the economy too. That is why we enclose the overview of evolution of main economic indicators from the reporting period (2000-2010) in Table 1.

We can distinguish the reporting period 2000-2010 into two stages in the terms of development of macroeconomic indicators of Slovak economy. We observed accelerating trend in the dynamics of economic growth in the first stage, what resulted in increasing growth rate of real GDP, especially during last three years of this stage. We can consider macroeconomic conditions as favorable for growth of economic performance of Slovak companies according to chosen macroeconomic indicators except of the development of inflation rate in some years, what corresponds with development of the tax revenues in state budget, nevertheless the income tax rate was decreased two times in this stage, totally from 29% to 19%. Temporary annual increases of inflation rate in 2003 and 2006 resulted in significant growth of the costs of Slovak companies and subsequently in the decline of their profits as a consequence of growing prices of electric energy, natural gas and other energies in 2006 and also as a result of increasing prices of fuels.

The trend of accelerating performance of Slovak economy was interrupted in the second stage (2008-2010). Firstly the dynamics of growth rate of real GDP just slowed down, but then it fell by 4.7% in 2009 due to global crisis. The economy performance subsequently grew in 2010 but not at expected pace. Macroeconomic conditions for growth of economic performance of Slovak companies got worse according to chosen macroeconomic indicators. The income tax rate stayed maintained in this stage. There was a significant decline in overall tax revenues in 2009 compared to year 2008 due to global crisis, mainly because of the decline in tax revenues from VAT by 78%, while revenues from corporate income tax in 2009 was comparable to year 2008. Unfavorable development in corporate income tax revenues occurred in 2010 (a decrease of 40% compared to 2009), while the overall tax revenues in 2010 did not record any significant decrease compared to 2009.<sup>1</sup>

<sup>1</sup> We assume that the reason for this interesting fact was mostly offset of corporate income tax after submissions of tax returns due to refunding of overpaid tax, which were higher than payments for settlement of arrears of tax in 2009. Similarly, advance payments could record annual decline due to lower tax liability of the assessed tax bases in 2009, which already suffer from the consequences of the crisis.

Table 1 Chosen macroeconomic indicators in SR for years 2000-2010

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Growth rate of real GDP ( %)	1,4	3,5	4,6	4,8	5,1	6,7	8,5	10,5	5,8	-4,8	4,0
Inflation rate measured CPI (%)	12,0	7,3	3,3	8,5	7,5	2,7	4,5	2,8	4,6	1,6	1,0
Unemployment rate (%)	18,6	19,2	18,5	17,4	18,1	16,2	13,3	11,0	9,6	12,1	14,4
NBS interest rate (%)	8,80	8,80	6,50	6,00	4,00	3,00	4,75	4,25	2,50	.*	.*
Income tax rate (%)	29	25	25	25	19	19	19	19	19	19	19
Tax revenues											
- corporate income tax ( mil.€ )	5 770	5 477	6 272	6 644	6 954	7 389	7 843	8 574	9 025	8 025	7 963
	834	671	926	966	984	1 397	1 569	1 741	2 122	2 130	1 258

\*since January 2009 ECB interest rate for main refinancing operations

Source: [http://www.nbs.sk/\\_img/Documents/\\_Publikacie/OstatnePublik/ukazovatele.pdf](http://www.nbs.sk/_img/Documents/_Publikacie/OstatnePublik/ukazovatele.pdf) [cit. 2011-11-24]

<http://portal.statistics.sk/showdoc.do?docid=1802> [cit. 2011-11-29] <http://www.finance.gov.sk/Default.aspx?CatID=4738> a <http://www.drsr.sk/wps/portal> [cit. 2011-11-15]

### III. MAIN RESEARCH PARAMETERS

The following assumptions were the subject of our investigation:

1. Companies as taxpayers respond to the changes in state tax policy – it is factor which affects them in their business activities.

2. Reducing income tax rate encourages companies to achieve or report higher profits in accounting which are a prerequisite for a higher tax bases.

We consciously did not choose for the purposes of assumptions analysis just only comparison of gross profit (GP) and net profit (NP). Confrontation with the indicator newly created value (NCV) give us the possibility to judge whether is income supported by real economic force gained in the transformation process of the company. NCV represents that part of value which is newly created in the transformation process of the company above the value of used production resource. We can understand it as a primary profit of the company. The advantage of this economic indicator is its closer relationship to the actual needs of the transformation process and hence the lower possibility of occasional distortion of the costs and revenues and subjective assessment of the costs and revenues (e.g. creating of adjusting entries).<sup>2</sup>

### IV. ANALYSIS RESULTS

We conducted the analysis of data provided by SCB - Slovak Credit Bureau, Inc., which statistically handles a representative database of financial statements transmitted together with tax returns of companies operating in Slovak economy. We had available data processed by the year 2010 in the time of execution of our analysis and writing this paper. We

<sup>2</sup> For further information concerning NCV indicator see Financial and economic analysis of company [1] and interesting way of using the NCV indicator for valuing securities is presented in article “Modern methods of shares valuation“ [2]

present the most important results of our analysis for the whole reporting period 2000-2010 in comparable structure for joint stock companies (Table 2) and limited liability companies (Table 3). For every indicator of economic results of the company we refer:

- relative position of the first profitable company – coefficient that expresses order relation between the first profitable company and overall multiplicity of database – higher ratio means that more loss-making or less profitable firms were observed in the database in a given year, therefore a positive development represents a decrease of this parameter,

- absolute number of profitable companies in the database in a given year,

- absolute number of loss-making companies in the database in a given year (difference between total number of companies and the sum of profitable and loss-making companies represents the number of companies with zero economic performance),

- profit per one profitable company (€) – value of average profit per one profitable company ( a ratio of overall profit to the amount of profitable companies),

- loss per one loss-making company (€) - value of average loss per one loss-making company ( a ratio of overall loss to the amount of loss-making companies).

Table 2 Statistical parameters of economic results from the database of joint stock companies for years 2000-2010

Joint stock comp.		Year										
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Number of companies</b>		<b>3 543</b>	<b>3 646</b>	<b>3 175</b>	<b>2 972</b>	<b>3 118</b>	<b>3 429</b>	<b>3 336</b>	<b>3 577</b>	<b>3 817</b>	<b>3 739</b>	<b>3 068</b>
NP	1. profitable (relat.)	0,63	0,56	0,54	0,52	0,50	0,51	0,48	0,46	0,49	0,55	0,53
	Number of profitable companies	1316	1617	1450	1440	1560	1694	1738	1917	1948	1677	1456
	Number of loss making companies	2071	1863	1573	1395	1452	1588	1452	1520	1740	1 943	1502
	Profit per 1 profitable (€)	543137	654084	970948	1504342	1588086	1716999	852326	1302226	1139822	834769	659556
	Loss per 1 loss making (€)	-1337053	-574716	-748054	-478438	-745430	-291638	-299573	-345302	-607795	-455111	-328950
GP	1. profitable (relat.)	0,60	0,54	0,52	0,50	0,49	0,50	0,48	0,46	0,48	0,55	0,52
	Number of profitable companies	1415	1678	1511	1486	1588	1718	1750	1945	1987	1698	1478
	Number of loss making companies	1977	1810	1513	1352	1423	1566	1438	1494	1700	1 920	1480
	Profit per 1 profitable (€)	713599	784652	1237688	1688228	1897152	2051627	1029685	1516666	1360176	959863	756813
	Loss per 1 loss making (€)	-1377468	-565080	-763780	-492632	-755632	-293328	-304303	-350372	-633839	-470162	-335427
NCV	1. profitable (relat.)	0,61	0,57	0,56	0,57	0,57	0,58	0,58	0,55	0,58	0,61	0,59
	Number of profitable companies	1393	1559	1404	1282	1333	1453	1408	1601	1614	1464	1257
	Number of loss making companies	1935	1844	1548	1475	1584	1740	1679	1773	1993	2096	1646
	Profit per 1 profitable (€)	1348994	1259685	1817988	2090628	2586625	2625341	1342278	1741592	1418445	1049535	892076
	Loss per 1 loss making (€)	-188822	-195875	-314572	-234283	-249854	-387887	-392246	-444957	-616910	-530689	-468646

Table 3 Statistical parameters of economic results from the database of limited liability companies for years 2000-2010

Limited liability comp.		Year										
		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Number of companies</b>		<b>35 022</b>	<b>37 913</b>	<b>36 593</b>	<b>37 194</b>	<b>43 762</b>	<b>50 892</b>	<b>55 301</b>	<b>64 567</b>	<b>73 694</b>	<b>80 666</b>	<b>70 915</b>
NP	1. profitable (relat.)	0,638	0,563	0,524	0,529	0,49	0,485	0,455	0,445	0,453	0,516	0,541
	Number of profitable companies	12 672	16 563	17 431	17 524	22 324	26 213	30 131	35 821	40 295	39 011	32 579
	Number of loss making companies	19 035	17 980	16 058	16 544	18 563	21 050	21 485	24 737	29 154	37 356	33 885
	Profit per 1 profitable (€)	42 597	56 200	53 841	82 323	80 826	88 992	75 869	81 660	80 743	56 830	64 467
	Loss per 1 loss making (€)	-43 322	-38 018	-42 797	-34 397	-33 279	-33 187	-34 412	-45 960	-50 316	-56 076	-39 923
GP	1. profitable (relat.)	0,614	0,604	0,507	0,513	0,482	0,483	0,45	0,44	0,447	0,51	0,534
	Number of profitable companies	13 537	15 012	18 027	18 101	22 681	26 332	30 423	36 162	40 750	39 506	33 060
	Number of loss making companies	18 223	22 131	15 503	16 002	18 237	24 442	21 218	24 418	28 705	36 863	33 544
	Profit per 1 profitable (€)	59 433	103 852	67 978	97 445	93 843	119 780	89 876	99 014	93 034	68 103	75 463
	Loss per 1 loss making (€)	-44 264	-45 989	-44 152	-34 933	-33 939	-43 465	-34 985	-46 770	-22 385	-57 407	-40 731
NCV	1. profitable (relat.)	0,593	0,544	0,519	0,525	0,501	0,491	0,47	0,452	0,459	0,508	0,54
	Number of profitable companies	14 255	17 277	17 591	17 659	21 831	25 926	29 327	35 364	39 858	39 699	32 619
	Number of loss making companies	16 394	16 099	14 722	15 191	17 456	19 446	20 359	23 006	27 351	34 495	31 933
	Profit per 1 profitable (€)	72 314	93 332	93 619	113 744	107 984	113 056	88 753	109 374	105 943	84 886	82 950
	Loss per 1 loss making (€)	-30 341	-31 565	-32 963	-34 622	-37 551	-37 986	-45 774	-52 496	-53 456	-53 992	-35 310

In addition to the data from Tables 2 and 3, the evolution of two selected parameters is captured also graphically - for joint stock companies in Figure 1 (the relative position of the first profitable company) and Figure 2 (average profit per one profitable company), for limited liability companies in Figure 3 (the relative position of the first profitable company) and Figure 4 (average profit per one profitable company).

For the period before the tax reform was characteristic that the number of profitable companies and average profit per one profitable company has been still rising. But the number of companies with positive NCV in the database of joint stock companies did not grow after 2002, gradual softening of the correlation between economic results and NCV as a primary profit from the transformation process of the company began at this time. Therefore the importance of other profit making factors which are unrestricted to the repeating activities of the company is growing. Nevertheless the average NCV per one profitable company is increasing also at this time. In the case of limited liability companies it has non-standard development in comparison with other results especially gross profit, not only in determining the position of the first profitable company, but also in terms of their average value per one profitable company.

We did not notice any significant jump in numbers of profitable companies or the average amount of profit during reform year 2004. Linking of the position of the first profitable company according to gross profit and net profit is evident as a logic consequence of tax rate lowering. Average profits just continue in growing trend from the period before reform (with small variations in the case of limited liability companies) until 2005, when the absolute maximum was achieved within joint stock companies despite the fact that the number of profitable companies was most favorable in 2007 in both databases.

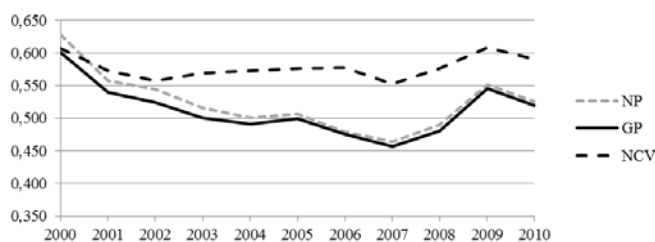


Figure 1 Development of the relative indicator 1. profitable company in the joint stock companies database

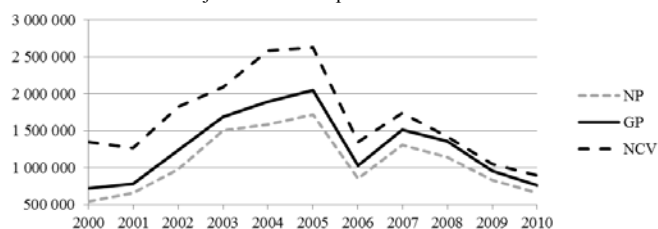


Figure 2 Development of the average profit per one profitable joint stock company

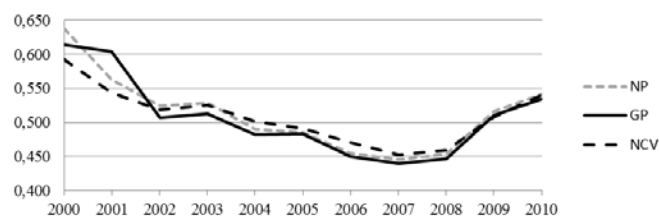


Figure 3 Development of the relative indicator 1. profitable company in the limited liability companies database

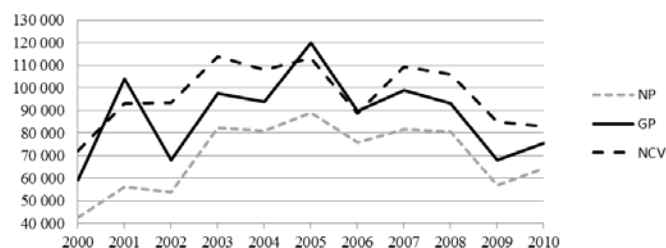


Figure 4 Development of the average profit per one profitable limited liability company

We noticed different trends between joint stock companies and limited liability companies in the matter of internal structure of income at the time after reform. The average profit per one profitable joint stock company (Figure 2) is rapidly falling after 2005 and differences between average NCV and both profits are gradually diminishing since 2007. But we can follow opposite tendency in the database of limited liability companies (Figure 4)

The year 2006 has a specific position in the development, when there is a significant decrease in the average of all profits what we attribute to the impact of increases in energy prices and interest rates in the economy (see also macroeconomic indicators in Table 1) from which limited liability companies recovered better than joint stock companies in 2007. We do not see any influence of this effect on the number of profitable companies in any database.

Another milestone in the development was the financial crisis that affected all economic data in both databases – just slightly in 2008 but it significantly shifted the border of the first profitable company and also caused a decrease in average earnings in 2009. Growth of the number of profitable joint stock companies restored in 2010 but average profits were still declining. The impact of the crisis on the number of profitable companies was stronger in the case of limited liability companies, but they were able to – unlike joint stock companies – increase average profit per one profitable company in 2010. The interesting point is that both overall average profits increased but not NCV what means that growth of the overall profit has origin in financial or extraordinary activities (no accounting change causing reclassification of costs and earnings in various activities occurred in this period).

## V. CONCLUSION

The aim of our analysis was to verify whether the actions concerning tax policy of the state are the factor that significantly affects economic results of the company. We used the example of reactions of Slovak joint stock companies and limited liability companies on tax reform occurred in 2004. Tax reform brought stronger correlation between gross and net

profit. It had also contribution to the growth of the number of profitable companies, but also in conjunction with other macroeconomic factors: the relative abundance of profitable companies in the databases of joint stock companies and limited liability companies increased in the years after tax reform, more dynamic in the case of limited liability companies despite the fact that results concerning NCV stayed stable, possible also worse. But the impact of the tax reform on the financial results of companies seems to be weaker opposite to the impact of other economic factors, e.g. inflation growth due to increase of prices of energy in 2006, economic growth (the biggest in 2007) or financial crisis (mainly in 2009).

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