

# Deferred Taxes in Trade

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## **Abstract**

*The issue of deferred taxes (deferred tax assets and deferred tax liabilities) have been intensively analysed from different perspectives. However, there is almost no paper entirely devoted to the analysis of the effects of deferred taxes on the performance of trade enterprises. Regarding this fact we attempt to conduct thorough analysis of the impact of deferred taxes on the performance of trading companies, with special insight into Serbia. Empirical analysis shows that deferred taxes are significant factor of performance of trading companies in countries with developed market economy, what is also the case with trade companies in Serbia. All this suggests that managers of trading companies must efficiently manage deferred taxes (net deferred tax assets (liabilities)) in order to achieve the target profit.*

**Keywords:** *deferred tax assets, deferred tax liabilities, the effective tax rate, evaluation and effects, profit.*

**JEL classification:** H26, L81, M41

## **1. Introduction**

Close attention has been paid to the issue of deferred taxes (deferred tax assets and deferred tax liabilities). It is being investigated from different perspectives, one of which is: evaluation and effects of deferred taxes on performance of trade companies and it is considered to be fairly recent. Due to this, the subject of this research is evaluation and the effects of deferred taxes on the performance of trade companies, with special insight into Serbia. The aim of the research is to investigate the issue of deferred taxes on the performance of trade companies in Serbia. This should provide an adequate basis for managers to efficiently manage the effects of deferred taxes on the performance of trade companies (in order to achieve the target profit). Also, this work should provide adequate theoretical, methodological and empirical material for further study of this current, significant and complex issue, with special insight into the analysis of the specificity of trade companies. In the context of the analysis of the treated issue we stress the fact that "deferred tax liabilities" essentially have all the attributes of the "legal" tax evasion. In this we find a reflection of scientific and professional contribution of this paper.

Extensive literature has been devoted to general problems of the valuation and the effects of deferred taxes on performance of companies (Chludek, 2011; Acheampong et al., 2013; Fischer, 2016; Baunman, 2016; Capkun, 2016) in certain

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countries (Vuckovic- Milutinovic, 2013, Purina, 2016). However, almost no work has been as a whole devoted to the analysis of the impact of deferred taxes on value and performance of companies in service sector (Skinner, 2008; Lukic, 2016), especially in trade (Nicker, 2014). In this we also find reflection of scientific and professional contribution of this paper.

Special scientific contribution of this work is reflected in the fact that it highlights the importance of continuous research (theoretical, methodological and empirical) of evaluation issues and the effects of deferred taxes on the performance of retail companies. In this context, we should bear in mind the fact that, as far as we know, the issue of evaluation and the effects of deferred taxes on the performance of trading companies in Serbia are being thoroughly researched for the first time. The obtained results are the basis for further theoretical, methodological and empirical research of this current, significant and complex issue in order to achieve the target profit of trading companies. Managers of trade companies in Serbia suggest that we should pay special attention to issues of tax planning and, in that context, management of the effects of deferred taxes in order to achieve our objectives in terms of business efficiency in very complex, dynamic and competitive business conditions.

The problem of deferred taxes is being recently researched through different hypotheses. The primary hypothesis of this study is: deferred taxes are important factor in the performance of global retailers. In this work and in accordance with the subject, objective and purpose of the research, it is tested on the example of trading companies and retailers in Serbia. The results of comparative and statistical (correlation and regression) research confirm given hypothesis.

In tune with the defined research hypothesis we applied adequate research methodology. It is primarily based on a comparative analysis, ratio analysis and statistical analysis. Time series are adjusted to the specifics of the issue treated in this paper.

For the purposes of the empirical research of effects of deferred taxes on performance of trade companies in this study we used original data from different sources. For global retailers, primary sources of data are officially published audited annual financial statements. Primary data for trading companies in Serbia were taken from the Business Registers Agency of the Republic of Serbia. The data collected on deferred taxes from primary sources were secondary processed in a manner that is consistent with the object and the purpose of the research in this paper.

The primary limitation of the study in this paper is different practice of evaluation of deferred taxes as a factor of performance in individual retail companies, due to the application of the "different" normative (legal) regulations. This hinders their "total" comparability. Nevertheless, the comparability in this paper is largely achieved because data on deferred taxes were, as much as possible, collected from the same sources for all analyzed global retail companies. In the future, greater attention should be paid to the impact of deferred taxes on the performance of retail companies. For the purpose of thorough research of the problem of deferred taxes in commercial enterprises, it is necessary to develop a

unified system of comparative analysis, uniform survey methodology and harmonize regulations. The ultimate effects of this are far more reliable findings on the effects of deferred taxes on the performance of retail companies.

## 2. Effective tax rate

The effective tax rate is the main indicator of the impact of taxes on the performance (result) of company. It is calculated as the ratio between taxes on profit and profit before tax, i.e.:

$$\text{Effective tax rate} = \text{Tax on profit} / \text{Profit before tax}$$

The effective tax rate differs among economic sectors and companies, including trading. Table 1 shows the average effective tax rate (for three years) for retail sector.

**Table 1.** The effective tax rate in retail sector

<b>Year</b>	<b>Effective tax rate</b>
<b>1. All analysed retail companies</b>	
2012-2013	32,9%
2013-2014	31,9%
2014-2015	32,5%
Average	32,4%
<i>Domestic retail companies</i>	
2012-2013	34,8%
2013-2014	35,0%
2014-2015	34,9%
Average	34,9%
<i>International retail companies</i>	
2012-2013	28,6%
2013-2014	24,2%
2014-2015	25,6%
Average	26,1%
<b>2. Retail companies in America</b>	
<i>American retail companies</i>	
2012-2013	37,0%
2013-2014	36,4%
2014-2015	36,8%
Average	36,7%
<i>Non-American retail companies</i>	
2012-2013	25,6%
2013-2014	22,8%
2014-2015	24,7%
Average	24,3%

*Source:* Retail Sector, Tax rate benchmarking, (January 2016), PWC. retrieved from <https://www.pwc.com/gx/en/retail-consumer/pdf/Tax-rate-benchmarking-study-retail.pdf> (January 16, 2017)

The data presented in the table show that the average effective tax rate in retail sector is at 32.4%. The average effective tax rate in retail is higher than in many other comparable economic sectors (Retail Sector, Tax rate benchmarking, (January 2016), PWC. retrieved from <https://www.pwc.com/gx/en/retail-consumer/pdf/Tax-rate-benchmarking-study-retail.pdf> (January 16, 2017). In general, the average effective tax rate of domestic is higher (8.8%) compared to the international retail companies. In this respect, the situation is similar in America – for example, the average effective tax rate of American companies is higher (12.4%) compared to non-US retailers. Continuous empirical research has found that "profitable" retailers have average effective tax rate at about 33 % (Retail Sector, Tax rate benchmarking, (January 2016), PWC. retrieved from <https://www.pwc.com/gx/en/retail-consumer/pdf/Tax-rate-benchmarking-study-retail.pdf> (January 16, 2017). It is used as a "standard" in the comparative analysis of retail companies.

### 3. The analysis of deferred tax of selected retailers

Table 2 shows deferred tax assets and deferred tax liabilities, as well as compatible components of selected (global) retailers, in 2015.

**Table 2.** Deferred tax assets and deferred tax liabilities, and compatible components of selected retailers, 2015 (\$ in millions USD)

	Total assets	Deferred tax assets	Deferred tax liabilities	Net deferred tax assets (liabilities)	Capital	Profit before tax	Tax on profit	Net profit
WalMart	203.71B	4.67b	1.03B	3.64BB	85.94B	24.8B	7.99B	16.18B
Home Depot	39.95B	642M	51M	591M	9.32B	9.98B	3.63B	6.35B
Costco	33.44B	462M	109M	353M	10.84B	3.6B	1.2B	2.38B
Target	41.17B	1.16B	-	1.16B	14B	3.65B	1.2B	9.45B
Tesco	421.69M	12.29M	13.97M	(1.68M)	374.95M	(118.41M)	15.34M	(113.75M)
Marks&Spencer	8.2B	315M	1.2M	314M	3.2B	600M	118.3M	486.5M

Source: retrieved from <http://www.marketwatch.com/> (January 19, 2017)

In all observed retail companies, except Tesco, deferred tax assets are higher than the deferred tax liabilities. In other words, the company Tesco partly used assets of this type to finance its retail activities.

In order to gain a better idea about the place, role and importance of deferred taxes, Table 3 shows the indicators of deferred taxes of selected (global) retailers for 2015.

**Table 3.** Indicators of deferred taxes of selective retailers, 2015

	Deferred tax assets / Total assets	Deferred tax liabilities/ Total assets	Deferred tax assets/ Profit before tax	Deferred tax liabilities/ Profit before tax	Effective tax rate (Profit tax/ Profit before tax x 100)	Return on assets (Net profit/ Assets)
WalMart	0,023	0,005	0,188	0,041	32,21%	0,188 (18,8%)
Home Depot	0,016	0,001	0,064	0,005	36,37%	0,681 (68,1%)
Costco	0,014	0,003	0,128	0,030	33,33%	0,219 (21,9%)
Target	0,028	-	0,318	-	32,88%	0,675 (67,5%)
Tesco	0,029	0,033	(0,104)	(0,118)	(12,95%)	0,357 (35,7%)
Marks&Spencer	0,038	0,000	0,528	0,002	19,72%	0,152 (15,2%)

*Note:* Calculation performed by the author

*Source:* retrieved from <http://www.marketwatch.com/> (January 19, 2017)

The data in the table show that as a percentage of assets, deferred tax assets range from 1.4% (Costco) to 3.8% (Marks & Spencer). Deferred tax liabilities as a percentage of assets range from 0.00% (Marks & Spencer) to 3.3% (Tesco). Effective tax rate varies in individual retail companies. It is lower in the UK (Tesco and Marks & Spencer) compared to the rest of the observed (US) retailers (at the average for the retail sector 33%).

In further presentations of the treated issue, because of the importance and complexity, we will take a closer look at the effects of deferred taxes on the performance of selected retailers.

Table 4 shows the dynamics of the effective tax rate of global retailer Wal-Mart for the period 2011 - 2016.

**Table 4.** The effective tax rate Wal-Mart, 2011-2016

	January 31, 2011	January 31, 2012	January 31, 2013	January 31, 2014	January 31, 2015	January 31, 2016
Effective tax rate	32,20%	32,60%	31,00%	32,90%	32,20%	30,30%

*Source:* retrieved from <https://www.stock-analysis-on.net/NYSE/Company/Wal-Mart-Stores-Inc/Analysis/Income-Taxes> (January 17, 2017)

The effective tax rate in Wal-Mart is, therefore, slightly greater than 30%, i. e. slightly less than the average (33%). This was also reflected on its overall economic performance.

In order to give more complex analysis of the effects of deferred taxes, Table 5 shows the components of deferred tax assets and deferred tax liabilities in Wal-Mart for the period 2011-2016.

**Table 5.** Components of deferred tax assets and deferred tax liabilities in Wal-Mart, 2011-2016 (millions USD)

	<b>January 2011</b>	<b>January 2012</b>	<b>January 2013</b>	<b>January 2014</b>	<b>January 2015</b>	<b>January 2016</b>
Loss and tax credit carry forwards	2,968	2,996	3,525	3,566	3,253	3,313
Accrued liabilities	3,532	2,949	2,683	2,986	3,395	3,763
Share-based compensation	332	376	204	126	184	192
Other	708	1,029	1,500	1,573	1,119	1,390
Deferred tax assets	7,540	7,350	7,912	8,251	7,953	8,658
Valuation allowances	(2,899)	(2,528)	(2,225)	(1,801)	1,504)	(1,456)
Deferred tax assets, net of valuation allowance	4,641	4,822	5,687	6,450	6,449	7,202
Property and equipment	(4,848)	(5,891)	(5,830)	(6,295)	(5,972)	(5,813)
Inventories	(1,014)	(1,627)	(1,912)	(1,641)	(1,825)	(1,790)
Other	(474)	(409)	(1,157)	(1,827)	(1,618)	(1,452)
Deferred tax liabilities	(6,336)	(7,927)	(8,899)	(9,763)	(8,415)	(9,055)
Net deferred tax assets (liabilities)	(1,695)	(3,105)	(3,212)	(3,313)	(2,966)	(1,853)

*Source:* retrieved from <https://www.stock-analysis-on.net/NYSE/Company/Wal-Mart-Stores-Inc/Analysis/Income-Taxes> (January 17, 2017)

According to the data in the table, it appears that in the analyzed period, deferred tax liability was greater than deferred tax assets in company Wal-Mart. This difference gradually increased until 2015 and then started to decrease. This had a positive impact on its cash flows, liquidity and solvency, viewed as a "specific" source of financing of retail activities. Tax credits are an important component of deferred tax assets. Thus, for example, in 2015, they participated in total deferred tax assets with 43.46%. In the same year, property and equipment participated in total deferred tax liabilities with 64.19%.

Table 6 presents the deferred tax assets and deferred tax liabilities in company Fast Retailing for the period 2012 - 2016.

**Table 6.** Deferred tax assets and deferred tax liabilities in the company  
Fast Retailing, 2012-2016 (million yen)

	February 2012	February2013	February 2014	February 2015	February 2016
Deferred tax assets	N.A	15,467	11,257	11,107	44,428
Deferred tax liabilities	N.A	49,752	37,387	47,272	3,809
Net deferred tax assets (liabilities)*	N.A	(34,285)	(26,130)	(36,165)	40,615
Net deferred tax assets (liabilities) from assets, (%)*	N.A	(3,80%)	(2,89%)	(3,11%)	3,28%

*Note:* \*Calculation provided by the author

*Source:* retrieved from [http://www.fastretailing.com/eng/ir/financial/bs\\_5yrs.html](http://www.fastretailing.com/eng/ir/financial/bs_5yrs.html) (January 17, 2017)

Almost throughout all observed period in the company Fast retailing, net deferred tax is negative (i.e. deferred tax liabilities are larger than the deferred tax assets), except for 2016. It ranges from (2.89%) to (3,80 %) as percentage of the assets, what had a favourable effect on cash flow, as an indicator of liquidity and solvency.

The data on deferred tax assets and deferred tax liabilities for the company Ahold are shown in Table 7 (for the period of 2014 and 2015).

**Table 7.** Deferred tax assets and deferred tax liabilities in the company  
Ahold, 2014 and 2015 (millions €)

	2014	2015
Net sales	32,774	38,203
Income taxes	248	224
Share of income taxes on profit in net sales, (%)*	0,75%	0,58%
Assets	14,138	15,880
Deferred tax assets	494	628
Net deferred tax assets (liabilities)	344	518
Share of net deferred tax assets (liabilities) in assets, (%)*	2,43%	3,26%
Capital	4,844	5,621
Share of net deferred tax assets (liabilities) in capital, (%)*	7,10%	9,21%

*Note:* \*Calculation performed by the author

*Source:* Ahold Annual Report 2015 retrieved from [https://www.aholdelhaize.com/media/1370/ahold\\_ar15\\_fullreport\\_interactive.pdf](https://www.aholdelhaize.com/media/1370/ahold_ar15_fullreport_interactive.pdf) (January 18, 2017)

The company Ahold has positive net deferred tax (i.e. deferred tax assets are higher than the deferred tax liabilities). As percentage of assets it amounted: 2014 – 2.43% and 2015 – 3.26%; and of capital 2014 – 7.10% and 2015 – 9.21%. Therefore, the share is approximately at the same level as of other comparable retailers.

Table 8 presents the deferred tax assets and deferred tax liabilities in Ahold Delhaize company for the period 2013-2015, because it operates in Serbia under the name of Delhaize Serbia, and in line with the primary objective of this study: evaluation of the effects of deferred tax performance of trading companies in Serbia.

**Table 8.** Deferred tax assets and deferred tax liabilities in company Delhaize Ahold, 2013-2015 (million €)

	<b>2013</b>	<b>2014</b>	<b>2015</b>
Revenues	20,593	21,361	24,395
Income tax expenses	85	66	97
Income tax expenses share in revenues, (%)*	0,41%	0,30%	0,39%
Assets	11,594	12,127	13,032
Deferred tax assets	71	46	81
Deferred tax liabilities	443	302	404
Net deferred tax assets (liabilities)	(372)	(256)	(323)
Share of net deferred tax assets (liabilities) in assets, (%)*	3,20%	2,11%	2,48%
Capital	5,073	5,433	5,231
Share of net deferred tax assets (liabilities) in capital, (%)*	7,33%	4,71%	5,23%

*Note:* \*Calculation performed by the author

*Source:* Delhaize Ahold Annual Report 2015 retrieved from [https://www.aholddelhaize.com/media/1406/2015\\_annualreport\\_en.pdf](https://www.aholddelhaize.com/media/1406/2015_annualreport_en.pdf) (January 18, 2017)

Therefore, net deferred tax in company Ahold Delhaize is negative. The percentage of the assets ranges from 2.11% up to 3.20%, and from the capital from 4.71% to 7.33%. The company Delhaize Ahold partially uses deferred tax as a separate source of funding for its retail activities.

#### 4. Deferred tax in trade of Serbia

Trade in Serbia plays an important role in the sustainable development of the entire national economy. The data in Table 9 show this.

**Table 9.** The importance of trade in Serbia, 2015 (million RSD)

	Economy	Trade	Share of trade in economy, (%)*
Total revenues	9.165.582	3.084.081	33,64%
Number of enterprises	92.842	31.948	34,41%
Number of employees	992.531	195.627	19,71%

*Note:* \*Calculation performed by the author

*Source:* Business Registers Agency of the Republic of Serbia

In 2015 trade took part in the total revenues of the Republic of Serbia with 33.64%, number of enterprises 34.41% and number of employees 19.71%. Due to the importance and its role in sustainable development of the Serbian economy, it is economically justified to examine the effects of deferred taxes on the performance of trade in Serbia. Table 10 presents the deferred tax assets and deferred tax liabilities of trade in Serbia for the period 2007-2015.

**Table 10.** Deferred tax assets and deferred tax liabilities (and compatible components) of trade in Serbia, 2007-2015 (millions RSD)

	Total assets	Deferred tax assets	Deferred tax liabilities	Net deferred tax assets (liabilities)*	Capital	Tax before profit	Tax on profit	Net profit
2007	1.841.426	2.592	3.657	(1.065)	791.071	97.336	6.354	90.984
2008	2.101.234	3.237	4.327	(1.090)	796.758	91.115	6.171	84.945
2009	2.206.975	3.372	4.037	(665)	803.361	79.790	5.392	74.201
2010	2.080.584	3.472	4.162	(690)	596.110	88.293	7.679	80.709
2011	2.146.251	4.049	4.246	(197)	662.450	100.346	7.982	91.822
2012	2.354.259	4.223	6.612	(2.389)	716.558	105.453	12.809	93.687
2013	2.160.474	4.795	6.797	(2.002)	746.992	101.501	10.647	89.730
2014	2.077.002	5.299	5.245	54	735.590	89.836	9.494	79.234
2015	2.234.368	5.342	5.805	(463)	816.397	116.247	13.855	102.303

*Note:* \*Calculation performed by the author

*Source:* Business Registers Agency of the Republic of Serbia

Negative deferred tax is specific for the trade of Serbia for the entire observed period, except for 2014. The descriptive data statistics show that: the average deferred tax assets in trade of Serbia amounted to 4.041 million dinars, the average deferred tax liabilities amounted to 4.987 million, and the average net

deferred tax assets (liabilities) amounted to – 945 million (Table 11). Deferred tax is thus used as a specific source of financing trade in Serbia.

**Table 11.** Descriptive statistics of deferred taxes in trade of Serbia, for the period 2007-2015

<b>Descriptive Statistics</b>					
	N	Minimum	Maximum	Mean	Std. Deviation
Total assets	9	1841426,00	2354259,00	2133619,2222	140329,06202
Deferred tax assets	9	2592,00	5342,00	4042,3333	961,39170
Deferred tax liabilities	9	3657,00	6797,00	4987,5556	1172,02369
Net deferred tax assets (liabilities)	9	-2389,00	54,00	-945,2222	803,97944
Capital	9	596110,00	816397,00	740587,4444	73326,26392
Profit before tax	9	79790,00	116247,00	96657,4444	10784,03799
Tax on profit	9	5392,00	13855,00	8931,4444	2995,77699
Net profit	9	74201,00	102303,00	87512,7778	8595,29676
Valid (listwise)	N 9				

*Note:* Calculation performed by the author using the SPSS program

*Source:* Business Registers Agency of the Republic of Serbia

In order to do more complex analysis Table 12 and in Figure 1 show the typical indicators of deferred tax in trade of Serbia 2007-2015.

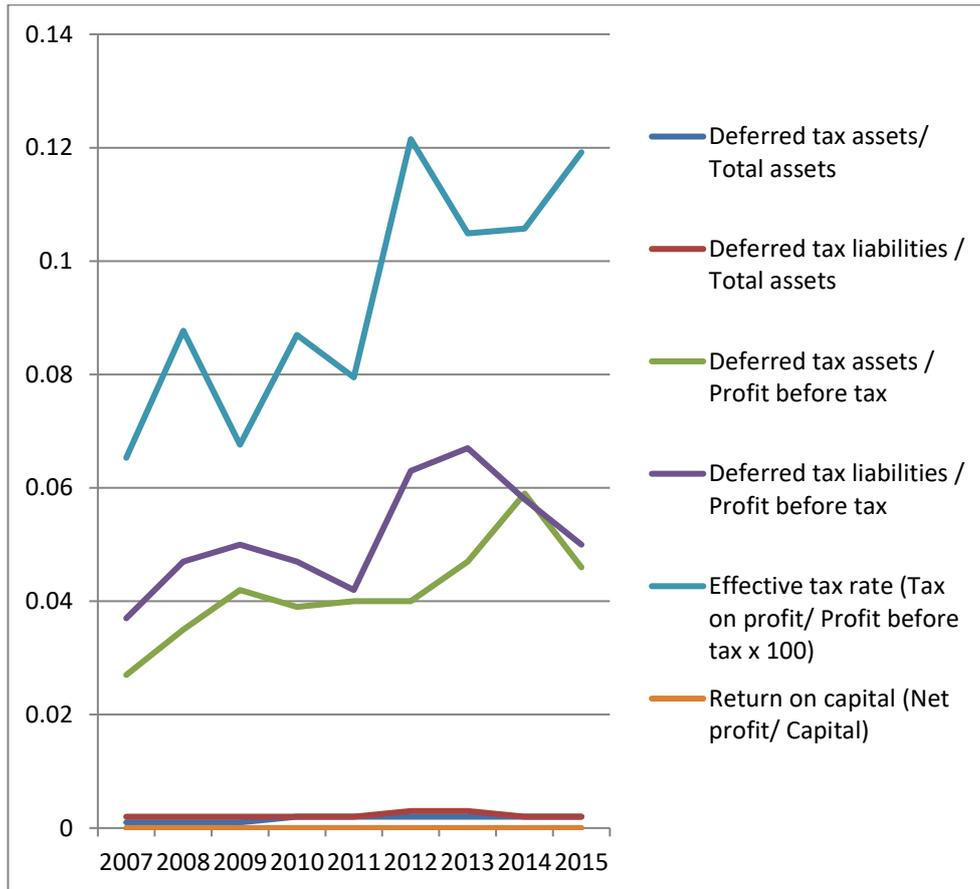
**Table 12.** Indicators of deferred tax of trade in Serbia 2007-2015

	Deferred tax assets / Total assets	Deferred tax liabilities / Total assets	Deferred tax assets / Profit before tax	Deferred tax liabilities / Profit before tax	Effective tax rate (Tax on profit / Profit before tax x 100)	Return on capital (Net profit / Capital)
2007	0,001	0,002	0,027	0,037	6,53%	0,115 (11,5%)
2008	0,001	0,002	0,035	0,047	8,77%	0,107 (10,7%)
2009	0,001	0,002	0,042	0,050	6,76%	0,092 (9,2%)
2010	0,002	0,002	0,039	0,047	8,70%	0,135 (13,5%)
2011	0,002	0,002	0,040	0,042	7,95%	0,139 (13,9%)

	Deferred tax assets / Total assets	Deferred tax liabilities / Total assets	Deferred tax assets / Profit before tax	Deferred tax liabilities / Profit before tax	Effective tax rate (Tax on profit/ Profit before tax x 100)	Return on capital (Net profit/ Capital)
2012	0,002	0,003	0,040	0,063	12,15%	0,131 (13,1%)
2013	0,002	0,003	0,047	0,067	10,49%	0,120 (12,0%)
2014	0,002	0,002	0,059	0,058	10,57%	0,108 (10,8%)
2015	0,002	0,002	0,046	0,050	11,92%	0,125 (12,5%)

Note: Calculation performed by the author

Source: Business Registers Agency of the Republic of Serbia



**Figure 1.** Indicators of deferred tax of trade in Serbia 2007-2015

Note: Figure illustrated by the author

Source: Business Registers Agency of the Republic of Serbia

The data in the table above (and in Table 13) show that in total assets deferred tax assets in the trade of Serbia participated from 0.1% to 0.2% – an average of 0.17%. Deferred tax liabilities participated in total assets of trade in Serbia from 0.2% to 0.3%, i.e. an average of 0.22%. The share of deferred tax assets in profit before tax of trade in Serbia ranges from 2.7% to 5.9% (on average 4.17%) and deferred tax liabilities from 3.7% to 6.7% (on average 5.12%). The effective tax rate of trade in Serbia ranges from 6.53% to 12.15% and the average was 9.31%. Therefore, the average effective tax rate of trade in Serbia was much lower in relation to comparable "standard" for trade sector (33%). Such characteristics of deferred taxes reflected on the yield from capital markets in Serbia. In the analyzed period it ranged from 9.2% to 13.9%, on average it amounted to 11.91%.

**Table 13.** Descriptive statistics indicators of deferred tax of trade in Serbia for the period 2007-2015

<b>Descriptive Statistics</b>					
	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
Deferred tax assets/ Total assets	9	,00	,00	,0017	,00050
Deferred tax liabilities / Total assets	9	,00	,00	,0022	,00044
Deferred tax assets / Profit before tax	9	,03	,06	,0417	,00880
Deferred tax liabilities /Profit before tax	9	,04	,07	,0512	,00974
Effective tax rate	9	6,53	12,15	9,3156	2,07971
Yield on capital	9	9,20	13,90	11,9111	1,51941
Valid N (listwise)	9				

*Note:* Calculation performed by the author using the SPSS program

*Source:* Business Registers Agency of the Republic of Serbia

Displayed correlation analysis in Table 14 shows that the indicator deferred tax assets/total assets significantly affects the yield of capital in trade of Serbia. The influence of other indicators of deferred tax on the yield from capital in trade of Serbia is negligible.

**Table 14.** Correlation analysis of deferred tax in the trade of Serbia

Correlations							
		Deferred tax assets/ Total assets	Deferred tax liabilities / Total assets	Deferred tax assets / Profit before tax	Deferred tax liabilities /Profit before tax	Effective tax rate	Return on capital
Deferred tax assets/ Total assets	Pearson Correlation	1	,378	,596*	,505	,708*	,713*
	Sig. (1-tailed)		,158	,045	,083	,016	,016
	N	9	9	9	9	9	9
Deferred tax liabilities / Total assets	Pearson Correlation	,378	1	,118	,802**	,546	,238
	Sig. (1-tailed)	,158		,381	,005	,064	,268
	N	9	9	9	9	9	9
Deferred tax assets / Profit before tax	Pearson Correlation	,596*	,118	1	,641*	,561	-,117
	Sig. (1-tailed)	,045	,381		,032	,058	,382
	N	9	9	9	9	9	9
Deferred tax liabilities /Profit before tax	Pearson Correlation	,505	,802**	,641*	1	,725*	-,031
	Sig. (1-tailed)	,083	,005	,032		,014	,469
	N	9	9	9	9	9	9
Effective tax rate	Pearson Correlation	,708*	,546	,561	,725*	1	,342
	Sig. (1-tailed)	,016	,064	,058	,014		,184
	N	9	9	9	9	9	9
Return on capital	Pearson Correlation	,713*	,238	-,117	-,031	,342	1
	Sig. (1-tailed)	,016	,268	,382	,469	,184	
	N	9	9	9	9	9	9
*. Correlation is significant at the 0.05 level (1-tailed).							
**. Correlation is significant at the 0.01 level (1-tailed).							

Note: Calculation performed by the author using the statistical program SPSS

Source: Business Registers Agency of the Republic of Serbia

By using regression analysis, we will take a closer look at the impact of deferred tax on the yield from capital of trade in Serbia. The model of multiple regression analysis is as follows:

$$Y = a_0 + a_1X_1 + a_2X_2 + a_3X_3 + a_4X_4 + a_5X_5 + \varepsilon$$

where: Y = the yield on capital, X<sub>1</sub> = the ratio between the deferred tax assets and total assets, X<sub>2</sub> = the ratio between the deferred tax liabilities and total assets, X<sub>3</sub> = ratio between deferred tax assets and profit before taxes, X<sub>4</sub> = ratio between deferred tax liabilities and profit before tax, X<sub>5</sub> = effective tax rate, ε = statistical error.

The results of regression analysis of deferred tax of trade in Serbia for the period 2007-2015 are shown in Table 15.

**Table 15.** Results of regression analysis of deferred tax indicators in trade in Serbia

Model Summary <sup>b</sup>											
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	Durbin-Watson F Change	df 1	df 2	Sig. F Change		
											1
a. Predictors: (Constant), Effective tax rate, Deferred tax assets/Total assets, Deferred tax assets/Profit before tax, Deferred tax liabilities /Profit before tax											
b. Dependent Variable: Yield on capital											
ANOVA <sup>a</sup>											
Model	Sum of Squares				df	Mean Square	F	Sig.			
1	Regression	18,190		5	3,638	39,179		,006 <sup>b</sup>			
	Residual	,279		3	,093						
	Total	18,469		8							
a. Dependent Variable: Yield on capital											
b. Predictors: (Constant), Effective tax rate, Deferred tax liabilities / Total assets, Deferred tax assets/Profit before tax, Deferred tax assets / Total assets, Deferred tax liabilities / Profit before tax											
Coefficients <sup>a</sup>											
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	Correlations					
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zer-order	Partial	Part	
1	(Constant)	12,234	1,088		11,243	,002	8,771	15,697			

Deferred tax assets/Total assets	3702,624	462,008	1,218	8,014	,004	2232,308	5172,939	,713	,977	,568
Deferred tax liabilities /Total assets	197,096	1140,498	,057	,173	,874	-3432,477	3826,669	,238	,099	,012
Deferred tax assets / Profit before tax	-120,451	48,771	-,698	-2,470	,090	-275,661	34,760	-,117	-,819	-,175
Deferred tax liabilities / Profit before tax	-42,132	67,095	-,270	-,628	,575	-255,658	171,395	-,031	-,341	-,045
Effective tax rate	,026	,098	,036	,267	,807	-,287	,339	,342	,153	,019
a. Dependent Variable: Return on capital										

Note: Calculation performed by the author using the statistical program SPSS.

Source: Business Registers Agency of the Republic of Serbia

The data in Table 15 show that the impact of deferred tax on the yield on capital in trade of Serbia (coefficient of determination R Square, 985) was significant. The presented regression model of analysis of impact of deferred tax on yield of capital indicators in trade of Serbia was good (F 39,179; p <0.05). The efficient management of deferred taxes can have a significant impact on increasing the yield on capital of trade in Serbia. This especially applies to deferred tax assets (i.e. the indicator between deferred tax assets and total assets, i.e.: deferred tax assets / total assets, t 8,014, Sig., 004).

In order to provide more complex analysis of the issue in this paper, Table 16 shows the deferred tax for five biggest trade companies in Serbia in 2015.

**Table 16.** Deferred tax assets and deferred tax liabilities (and compatible components of selected retailers in Serbia, 2015 (millions RSD)

	Total assets	Deferred tax assets	Deferred tax liabilities	Net deferred tax assets (liabilities)*	Capital	Profit before tax	Tax on profit	Net profit
Mercator-S	74.330	-	380	(380)	22.451	490	107	381
Delhaize Serbia	73.304	584	-	584	47.353	3.413	519	2.894
Nelt Co. Doo	20.723	18	284	(266)	11.258	1.196	83	1.119
Knez Petrol	5.666	3	-	3	1.411	360	49	312
OMV Srbija	10.851	569	-	569	6.676	842	319	1.011

Note: Calculation performed by the author

Source: Business Registers Agency of the Republic of Serbia

The data in the table show that the companies Mercator-S and Nelt Co. have negative deferred taxes, and the other have positive. It has adequately reflected on their performance. Table 17 and in Figure 2 present indicators of deferred taxes of observed retailers in 2015.

**Table 17.** Indicators of deferred taxes of selected retailers in Serbia, 2015

	Deferred tax assets/Total assets	Deferred tax liabilities/Total assets	Deferred tax assets /Profit before tax	Deferred tax liabilities / Profit before tax	Effective tax rate (Tax on profit/Profit before tax x 100)	Return on capital (Net profit/Capital)
Mercator-S	-	0,005	-	0,775	21,83%	0,017 (1,7%)
Delhaize serbia	0,008	-	0,171	-	15,21%	0,061 (6,1%)
Nelt Co. Doo	0,001	0,014	0,015	0,237	6,94%	0,099 (9,9%)
Knez Petrol	0,001	-	0,008	-	13,61%	0,221 (22,1%)
OMV Srbija	0,052	-	0,676	-	37,88%	0,151 (15,1%)

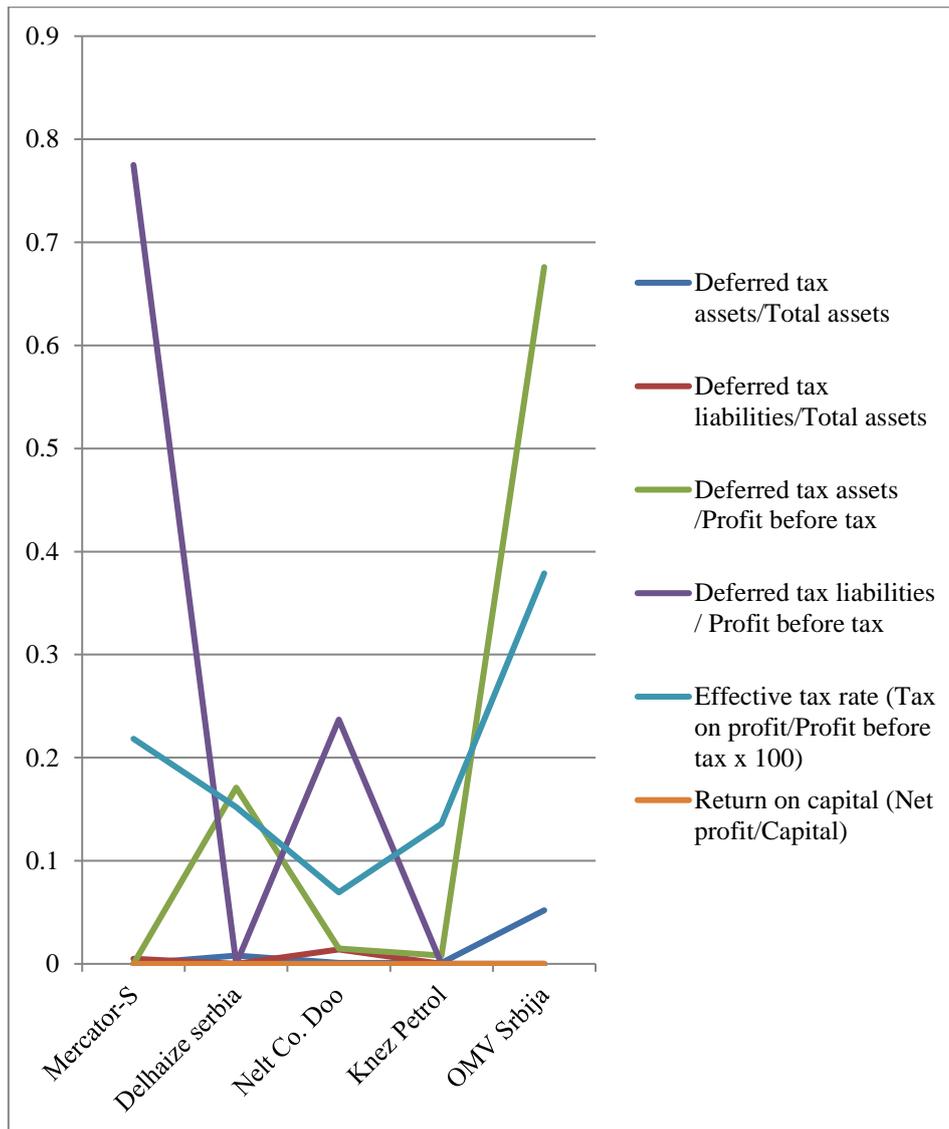
*Note:* Calculation performed by the author

*Source:* Business Registers Agency of the Republic of Serbia

## 5. Conclusions

The impact of deferred taxes on the performance of trading companies is becoming more significant. This is proven by the results of analysis in this paper, based on the examples of global retailers, and especially trade companies in Serbia. The effective tax rate, as an indicator of performance, differs among trading companies. On average – for trade sector – it is 33%. In general, it is specific that the effective tax rate was significantly lower in domestic than in the international retail companies (showed by the data on America). It is lower in trading companies in Serbia than in countries with developed market economy.

Deferred tax is in many (retail) companies used as a source of trade activities financing, such as in trading companies in Serbia. In connection with deferred tax, it should be generally borne in mind that: deferred tax liabilities represent a sort of "legal" tax evasion and source of (retail) activities financing.



**Figure 2.** Deferred taxes of selected retailers in Serbia, 2015

*Note:* Figure illustrated by the author

*Source:* Business Registers Agency of the Republic of Serbia

Data in the table show that all retailers, except OMV Serbia, have lower effective tax rate compared to global retailers (i.e. a standard of 33%). It adequately reflected on their performance. All in all, more efficient management of deferred taxes can have a significant impact on improving the performance (return on equity) of total trade in Serbia, as well as individual retailers.

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