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PRODUCTIVITY AND PROFITABILITY IN CROATIAN RETAIL AFTER THE CRISIS

Abstract:

The retail sector is one of the most important sectors in Croatian economy. This paper analyzes the profitability of Croatian retail sector compared to other countries of the European Union. The aim of this paper is to show the position of Croatia as the youngest member state of the European Union in comparison with other member states of the European Union and especially compared to ten "new" member states of the European Union. The analysis will show in which areas Croatia is similar to the European Union, but it will also show that unlike most new member states, Croatia's GDP growth was driven essentially by employment growth, with limited productivity gains.

Keywords:

Productivity, Profitability, Croatia, European Union, Retail

JEL Classification: E00, O00

INTRODUCTION

With 4.2 million people, Croatia is a small European market. One of key sectors in Croatian economy is commerce. More than 30% of all Croatian companies operate in the commerce sector. 22% of all Croatian employees work in commerce. The retail value in Croatia is 6.8 billion euro.[1] Croatia has very specific geographical shape. On the total surface of 56000 km^2 there are 3000 km of the border. That is the reason why it is very expensive to organize the distribution. The turnover coefficient in Croatian commerce is estimated to 2.9.

Profitability is the set of indicators which show the success of economic activity. It compares the financial result to the invested money and can be analyzed as the profit margin or return on investment. The production process consists of the real process and the income distribution process. The profitability of production is the share of the real process result the owner has been able to keep to himself in the income distribution process.[2] Factors describing the production process are the components of profitability, i.e., returns and costs. They differ from the factors of the real process in that the components of profitability are given at nominal prices whereas in the real process the factors are at periodically fixed prices.

Trends in Croatian retail are similar to trends in retail on European level. This is obvious from the Croatian and European macroeconomic indicators which confirm the significant impact of retail on the economy of the EU. The share of retail in the GDP of Croatia is about 10%, while in the European Union this share is about 11%.[3]

Retail is a mirror image of an economy. Trends in retail are the result of trends in the whole economy because consumers are those who first change their habits in the period of crisis or in the period of expansion. Under the influence of global crisis, the retail in Croatia decreased by more than 5% in 2009. This negative trend continued in next years, and in 2015 there was first significant growth after the crisis.

LITERATURE OVERVIEW

Hernant, Andersson and Hilmola[4] described the determinants of profitability in terms of the strategic profitability model (the Du Pont model), depicting the "route" to high profitability in grocery retail stores located in market areas possessing dissimilar competitive conditions. The research results are derived from local competitive conditions and the performance of 168 supermarkets, located in Sweden, and controlled by one retail chain. The paper identified four clusters of local markets labeled

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[1] Bilić, S. (2015) Trgovina u Hrvatskoj s posebnim osvrtom na razvoj male trgovine, Suvremena trgovina, 1/2015
[2] Riistama, K.; Jyrkkiö E. (2008) Laskentatoimi päätöksenteon apuna, Sanoma pro
[3] Croatian chamber of commerce, http://www.hgk.hr/sektor-centar/sektor-trgovina/hrvatska-maloprodaja-u-skladu-s-europskim-i-svjetskim-trendovima
[4] Hernant, M.; Andersson, T.; Hilmola, O.P. (2007) Managing retail chain profitability based on local competitive conditions: preliminary analysis, International Journal of Retail & Distribution Management, Vol. 35 Iss: 11, pp.912 - 935

monopoly, fleet market, venue, and duopoly, based on local competitive conditions. The findings show that the "route" to profitability significantly differs between the clusters. In monopoly the route to high profitability goes through high-gross margin, while in fleet market the key figures are low cost, large number of shoppers per week, and high productivity. Venue and duopoly both gain from high-average transactions per shopper. Based on the findings the paper proposes unique management strategies for different clusters of local markets to further enhance current strength areas.

Kumar, Shah and Venkatesan[5] examined how customer lifetime value (CLV) can be computed at individual customer level in a retail setting to maximize profitability. The study finds that maximum positive impact to CLV occurs when the customer cross-purchases, shows multi-channel shopping behavior, stays longer with the firm, buys specific product categories and purchases more frequently with the firm. Interestingly, the CLV follows an inverted U relationship with increase in return of prior purchases. Other interesting findings include a surprisingly low correlation between customer loyalty and future profitability and low correlation between stores' historic revenues and future profitability. Several implications are suggested for retailers to manage and maximize customer profitability as well as store profitability.

Gosman et al.[6] examined the profitability and valuation of retail firms identified by suppliers as major customers, using major customer relationships to proxy for unrecorded organizational-capital intangibles. Major customers have higher operating profitability and profitability persistence, with the sources of the higher profitability consistent with purported advantages of supply chain arrangements. The pricing of major customers is consistent with the market recognizing the level and over-time properties of operating profitability. Together, these results suggest that investors understand the profitability effects of unrecorded organizational intangible assets and that financial statement analysis can be used to further examine the valuation effects of such intangibles.

Al-Jafari and Al Samman[7] analyzed the determinants of profitability for industrial firms in Oman. They utilized a sample of 17 industrial companies listed on Muscat securities market covering the period from 2006 till 2013. Results from the panel ordinary least squares model reveal a positive and statistical significant relationship between profitability, the firm size, growth, fixed assets and working capital. On the other hand, the average tax rate and the financial leverage variables show a negative relationship with profitability. However, this relationship is significant only for the financial leverage variable. The study concludes that large growing firms with efficiently managed assets improve revenue and ultimately enhance profitability.

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[5] Kumar, V.; Shah, D.; Venkatesan, R. (2006) Managing retailer profitability--one customer at a time!, Journal of Retailing 82.4, pp. 277-294
[6] Gosman, M.; Kelly, T.; Olsson, P.; Warfield, T. (2004) The Profitability and Pricing of Major Customers, Review of Accounting Studies, 9.1, pp. 117-139
[7] Al-Jafari, M.K.; Al Samman, H. (2015) Determinants of Profitability: Evidence from Industrial Companies Listed on Muscat Securities Market, Review of European Studies, Vol. 7, No. 11, pp. 303-311

Derado[8] applied the theoretical inferences about welfare effects of trade integration within the EU on Croatia and its business sector. The analysis focuses on static and dynamic effects which follow from increasing export possibilities and advantages from economies of scale. Kovac and Kovac[9] analyzed the influence of international trade of goods of Croatia in the period from 2001 till 2010. The study shows contribution of exports and imports of goods on the real GDP growth, in time which represented the global economic crisis, of Croatia in comparison to other European countries in the region.

METHODOLOGY

This paper consists of the theoretical part and the empirical part. In the theoretical part we discuss the productivity and profitability. We analyze the distinction between productivity and profitability as two widely used measures, and we analyze different measures of profitability that can be calculated from sales, profit, margin etc.

The empirical part analyzes trends in retail in European Union and compares data from member states to Croatia. There is also the analysis of Croatian retail sector compared to other EU countires. We will also analyze the labour productivity within the non-financial business economy in the European Union.

All data used for analysis have been taken from Croatian bureau of statistics, Eurostat and European commission.

PRODUCTIVITY AND PROFITABILITY

Productivity is a measure of the efficiency of production. It is usually expressed as the ratio of output to inputs used in the production process. This means the quantity of output per unit of input. If all outputs and inputs are included in the productivity, then this measure is called total productivity. As all outputs and inputs are defined as their economic values, the difference between the value of outputs and the value of inputs is a measure of the income generated in a production process. It is a measure of total efficiency of a production process and generally in all models it is the objective to be maximized in process of production.

Productivity measures that use one or more inputs (but not all inputs), are called partial productivities. A common example in microeconomics are labor productivity and capital productivity, usually expressed as output per hour of work or per unit of capital. In macroeconomics the approach is different. In macroeconomics the objective is to

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[8] Derado, D. (2008) Effects of the eastern EU-enlargement on Croatia – a trade analysis, Management, Vol. 13, No. 1, pp. 37-58

[9] Kovac, Ivan; Kovac Ivana (2013) The influence of international trade of goods of the Republic of Croatia, Journal of Enterprising Communities: People and Places in the Global Economy Vol. 7, No. 1, pp. 60-73

analyze all production processes in one branch and the output is obtained by summing up the value-added created in the single processes. The principle of added value is done in order to avoid the double accounting of intermediate inputs. The typical measure of the aggregate output is the gross domestic product (GDP). It is widely used as a measure of the economic growth of nations and industries. GDP is the income available for paying capital costs, labor compensation, taxes and profits.

Productivity for a single input means the ratio of output to input. When multiple inputs are considered (labor, capital, land) productivity is the level of output compared to the level of inputs.[10] This measure is called total factor productivity (TFP). Productivity is a crucial factor in production performance of firms and nations. Increasing national productivity can raise living standards because more real income improves people's ability to purchase goods and services, enjoy leisure, improve housing and education and contribute to social and environmental programs. Productivity growth also helps businesses to be more profitable.[11]

Profitability can be defined as the state or condition of yielding a financial profit or gain. It is the primary goal of all businesses. Without profitability the business will not survive in the long run, so it is very important to analyze the past and current profitability, as well as to project the future profitability. One of the most important tasks of the business managers is to increase the profitability. Managers constantly look for ways to change the business to improve profitability. Productivity is usually computed as profitability ratios or return on investment.

Profitability ratios show the business's ability to generate earnings as compared to its expenses during a specific period of time.

Gross profit margin measures the cost of production. It is calculated using the formula

$$GPM = \frac{GP}{NS}\ 100 \tag{1}$$

where GPM is gross profit margin, GP gross profit and NS net sales. Gross profit margin shows us how much revenue remains to the company after covering production costs. This information is essential for businesses because it provides information about the income that remains for the development of the company after some product or goods are sold on the market.

Net profit margin measures the profitability of the business. It can be calculated by the formula

$$NPM = \frac{PAT}{NS}\ 100 \tag{2}$$

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[10] Pineda, A. (1990) A Multiple Case Study Research to Determine and respond to Management Information Need Using Total-Factor Productivity Measurement, Virginia Polytechnic Institute isand State University
[11] Kurosawa, K (1975) An aggregate index for the analysis of productivity, Omega 3 (2), pp. 157–168
Gollop, F.M. (1979) Accounting for Intermediate Input: The Link Between Sectoral and Aggregate Measures of Productivity Growth, Measurement and Interpretation of Productivity, National Academy of Sciences

where NPM is net profit margin, PAT profit after taxation and NS net sales. Net profit margin tells us what the net profit is made out of the sale realized on the market. This part of profit a company can pay out to owners or it can leave it as retained earnings.

Return on investment is the ratio of a profit or loss expressed in terms of an investment. It is expressed in terms of a percentage of increase or decrease in the value of the investment during the year. It is calculated as

$$ROI \ = \ \frac{PAT}{TI} \ 100 \tag{3}$$

where ROI is return on investment, PAT profit after taxation and TI total investment. The purpose of using the concept of return on investment is to measure rates of return on money invested in an economic entity in order to decide whether or not to undertake an investment.[12] It is also used as indicator to compare different project investments within a project portfolio, where the project with greatest value of ROI is prioritized.

TRENDS IN EU AND CROATIAN RETAIL

There is a business indicator which measures the monthly changes of the deflated turnover of retail trade which is called the index of the volume of retail trade. Graph 1 shows its vales in the period from 2005 to July 2016.

Graph 1: Retail trade volume and turnover indicators, EU-28, monthly data, seasonally and working day adjusted (2010=100)
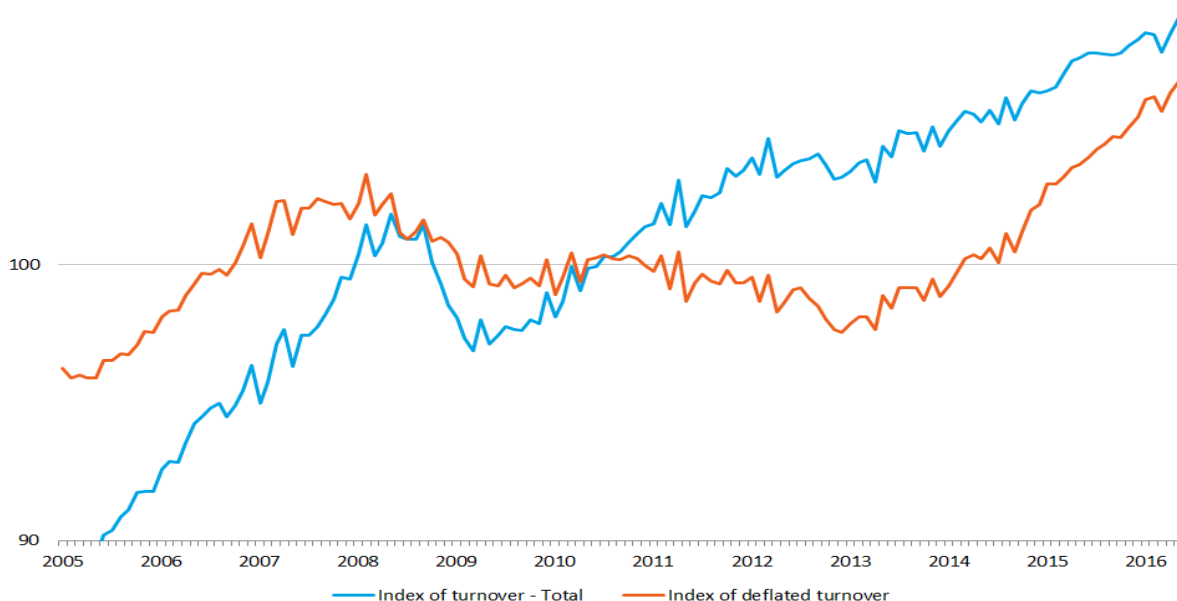
Source: Eurostat

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[12] Farris, P.W.; Bendle, N.T.; Pfeifer, P.E.; Reibstein, D.J. (2010) Marketing Metrics: The Definitive Guide to Measuring Marketing Performance, Upper Saddle River, New Jersey: Pearson Education

After several years of a steady increase the volume of retail trade in the EU-28 peaked in 2008. After 2008 there was a decline which lasted until 2013. Since the first half of 2013 the retail volume has started to increase again. Graph 1not only shows the real volume of EU retail trade turnover but also the nominal turnover indicator which combines both volume and price changes. The nominal values reacted more strongly during the crisis, suggesting a decrease in the general level of retail prices. However, since 2009 nominal turnover has increased much more than the retail trade volume and has now reached a level of 7 percentage points above the pre-crisis high.[13]

Table 1: Retail trade volume annual rates of change

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
EU-28	1.9	3.1	2.3	-0.3	-2.0	0.4	-0.5	-0.9	0.0	2.1	3.4
EA-19	1.7	2.2	1.6	-0.7	-2.6	0.6	-0.4	-1.4	-0.6	1.5	2.8
Belgium	2.7	0.4	2.5	1.8	0.7	-0.4	1.0	1.1	-0.5	1.1	-0.3
Bulgaria	14.5	13.0	19.0	9.0	-7.8	-8.3	0.6	5.3	3.9	10.3	0.8
Czech Republic	6.7	8.7	7.5	3.9	-1.5	-0.8	0.3	-0.9	0.2	2.9	6.4
Denmark	5.7	3.9	1.5	-2.3	-3.3	-1.5	-2.3	-2.3	-1.0	1.2	1.2
Germany	1.4	0.3	-1.3	-0.1	-2.7	1.3	1.0	-0.2	0.4	1.4	2.9
Estonia	14.7	17.6	10.6	-4.4	-18.3	-0.4	4.6	5.6	1.9	7.1	4.4
Ireland	5.6	8.8	8.3	-2.0	-6.3	-0.1	-2.4	0.3	1.0	4.0	6.3
Greece	4.7	9.0	2.2	1.3	-11.4	-6.2	-10.2	-12.2	-8.1	-0.4	-1.5
Spain	1.3	1.7	2.6	-5.8	-5.3	-2.2	-6.2	-8.1	-5.1	1.1	3.6
France	1.4	3.2	3.9	0.9	0.8	3.3	3.3	1.9	1.9	2.3	3.8
Croatia	4.2	4.8	4.9	1.2	-5.5	-3.5	-0.5	-3.7	0.7	-0.4	3.6
Italy	-0.5	1.0	-0.2	-2.7	-1.3	0.3	-1.8	-3.4	-2.3	0.4	1.8
Cyprus	4.3	6.7	8.0	5.2	-3.7	-0.6	-4.9	-8.0	-6.5	1.0	3.7
Latvia	18.0	18.2	12.8	-7.2	-25.5	-3.1	2.3	7.3	3.9	3.6	5.5
Lithuania	12.2	11.4	16.0	2.0	-21.1	-6.8	6.5	3.6	4.4	5.4	5.5
Luxembourg	0.2	7.4	5.2	2.6	2.8	9.0	22.6	20.3	13.3	8.3	6.6
Hungary	4.1	4.9	-2.0	-1.7	-5.4	-2.2	0.3	-2.0	1.8	5.1	5.6
Malta	-4.9	-3.7	8.7	-2.8	-1.3	12.8	-2.0	0.7	-0.7	0.0	6.6
Netherlands	0.6	5.0	3.4	0.4	-4.9	-1.0	-1.5	-3.0	-3.9	1.0	2.3
Austria	2.4	1.5	0.8	-1.1	1.9	1.8	-1.3	-0.3	-0.2	0.3	1.6
Poland	-0.4	12.4	9.8	4.0	2.5	5.6	-0.5	-1.2	4.8	1.1	6.6
Portugal	6.0	1.0	0.6	0.5	-0.7	-0.2	-8.0	-5.8	-1.6	1.2	2.1
Romania	17.1	23.3	20.0	17.1	-9.6	-7.3	-1.0	4.1	0.3	6.5	8.8
Slovenia	8.6	3.0	6.4	11.4	-10.5	-0.3	1.6	-2.2	-3.2	-0.3	0.8
Slovakia	10.2	8.2	5.5	16.6	-10.1	-2.2	-2.4	-1.0	0.2	3.6	1.7
Finland	4.8	5.0	5.2	0.8	-2.2	2.0	2.5	1.3	-0.8	-1.1	0.3
Sweden	5.9	6.0	0.8	1.0	0.6	2.6	0.7	1.9	2.4	2.5	7.1
United Kingdom	1.2	3.7	2.8	-0.5	0.7	-0.8	-0.9	0.7	1.3	4.4	4.1

Source: Eurostat

Table 1 show that the retail trade volume in the EU member states generally increased during the period 2005-2015.[14] Between 2005 and 2007, the year before the crisis, retail trade volume increased in all EU Member States (with the exception of Malta). Especially strong were the increases in Bulgaria, Romania and the Baltic countries. High increases could also be observed in the Czech Republic, Ireland, Cyprus, Poland and Slovakia. In most of these countries the dynamic development stopped between 2006 and 2008. Only few EU-countries came through the crisis without any negative development of retail trade volume between 2008 and 2010, such as France, Luxembourg, Poland and Sweden. In almost half of the EU Member States, the overall

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[13] Eurostat: Retail trade volume index overview, http://ec.europa.eu/eurostat/statistics-explained/index.php/Retail_trade_volume_index_overview
[14] Eurostat: Retail trade volume index overview, http://ec.europa.eu/eurostat/statistics-explained/index.php/Retail_trade_volume_index_overview

development between 2008 and 2014/15 was negative, i.e. retail trade volumes have not yet reached the pre-crisis level.

Graph 2: Productivity in Croatia from 2009 to July 2016 (2013=100)

Source: Croatian bureau of statistics and http://www.tradingeconomics.com/croatia/productivity

Graph 2 shows the Croatian productivity, which is measured as the real value of output produced by a unit of labor during a certain time. There are increases in 2010, 2013 and 2016, which are usually followed by the decrease. The increase is usually fast, and the decrease is more slowly.

CROATIAN RETAIL SECTOR ANALYSIS

After the period of crisis, Croatian retail experienced the growth in 2015. According to the data of the Croatian bureau of statistics, the retail value in 2015 increased by 2.4%. Analyzing on monthly basis, the highest growth is always during the summer months, which is connected to tourism, as one of the most important sectors in Croatian economy.

The highest growths in retail in 2015 were in audio/video equipment, home electronics, furniture, clothes and food. The largest fall in the same period was in oil and petrol, computer equipment, toys, flowers and motor cars.

The number of legal entities in retail increased in 2015 by 4.1%, but the number of employees decreased by 0.4%. Real salaries increased by 2.8%, but they are still under the average Croatian salary.

There is a strong positive correlation between the retail and the following variables[15]:
-   Consumption (r=0.98);

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[15] Anić, I.D. (2016) Sektorske analize – Trgovina na malo, EIZ, Zagreb

- Gross domestic product (r=0.94);
- Industrial production (r=0.93);
- Import (r=0.86);
- Tourist arrivals (r=0.83).

In 2015 consumption increased by 1.2%, gross domestic product increased by 1.6% and tourist arrivals increased by 18.0%, which influenced the retail in Croatia.

The strongest negative correlation exists between the retail and the following variables:
- Final prices (r=-0.78);
- Input prices (r=-0.61).

The fall in prices lead to the increase in commerce activities. As final prices decreased by 0.4% and input prices decreased by 4.4% in 2015, the retail increased.

The retail, which is influenced by the mentioned variables, those in positive correlation and those in negative correlation, led to the increase in Croatian retail by 2.4%.

**Table 2: Number of persons employed in thousands in 2013**

	Mining & quarrying	Manu-facturing	Electricity, gas, steam & air con. supply	Water supply, waste & remedia-tion	Con-struction	Distribu-tive trades	Transport & storage	Accommo-dation & food services	Informa-tion & communi-cation	Real estate activities	Profes-sional, scientific & technical activities	Admini-strative & support services	Repair: computer, personal & h'hold goods
EU-28	582.8	30 000.0	1 200.0	1 450.0	12 312.1	32 674.1	10 478.5	10 404.7	6 046.1	2 704.2	11 680.6	13 569.4	385.4
Belgium	2.6	514.9	19.2	26.1	318.0	657.8	215.0	170.2	122.0	60.0	264.6	347.9	5.6
Bulgaria	24.7	524.2	32.8	34.1	145.4	497.2	155.6	137.4	77.2	35.1	93.4	103.1	5.8
Czech Republic	33.0	1 212.6	33.5	53.6	375.4	706.5	262.5	161.6	116.5	61.0	247.6	205.0	13.9
Denmark	5.2	356.9	10.4	10.4	165.6	415.9	147.8	68.8	113.6	34.9	158.0	104.9	4.1
Germany (¹)	63.1	7 143.6	223.2	202.5	1 984.1	6 210.7	2 039.4	1 989.5	1 097.6	471.5	2 209.1	2 966.1	38.0
Estonia	5.1	104.7	5.2	3.3	46.0	88.1	37.9	20.8	20.0	10.6	26.4	34.7	0.9
Ireland (²)	3.6	161.7	10.3	6.4	77.0	337.3	79.9	153.7	71.7	23.5	111.2	101.5	2.2
Greece (³)	5.1	311.6	21.478	9.8	197.4	794.437	162.3	236.0	74.4	10.6	193.9	127.5	10.2
Spain	21.0	1 736.7	39.0	152.6	1 041.0	2 891.6	845.7	1 218.5	405.6	185.5	916.6	1 176.0	48.6
France (³)	24.4	3 029.3	178.0	161.3	1 772.1	3 387.5	1 382.3	991.8	797.4	342.1	1 418.6	1 940.0	70.7
Croatia	13.8	260.8	15.5	23.2	106.3	228.6	77.2	92.2	38.0	10.8	79.9	45.6	4.0
Italy	31.8	3 803.0	87.9	182.5	1 455.2	3 370.8	1 053.5	1 243.1	543.4	282.7	1 165.3	1 102.3	45.2
Cyprus (⁴)	0.6	28.5	1.5	1.6	23.3	61.1	16.8	36.2	8.2	1.3	20.5	7.4	0.4
Latvia	3.1	121.5	11.1	7.5	62.2	152.4	75.2	30.0	24.4	29.1	39.3	30.5	1.8
Lithuania	2.6	197.9	13.0	12.9	95.4	244.8	108.6	38.5	25.9	20.4	51.4	47.9	3.3
Luxembourg	0.2	33.3	1.4	1.2	40.1	47.0	23.5	17.5	15.9	2.8	28.3	27.7	0.3
Hungary	4.3	664.6	24.3	40.0	187.7	547.1	215.7	124.5	110.4	63.7	202.7	191.4	10.6
Malta (⁵)	:	:	:	:	10.217	28.859	9.623	16.141	6.443	1.752	9.99	11.406	0.351
Netherlands	10.4	681.9	27.1	32.8	450.1	1 464.1	408.8	403.2	267.6	78.9	634.7	872.0	13.0
Austria	6.1	615.7	28.8	19.7	282.8	646.0	206.2	284.3	104.0	52.1	231.2	210.5	4.0
Poland	171.4	2 345.9	139.9	127.5	829.6	2 150.5	720.3	234.0	289.5	171.4	537.5	450.6	32.9
Portugal	9.6	638.6	9.0	30.5	313.7	732.7	150.8	264.5	82.9	44.4	207.8	373.2	8.5
Romania	51.8	1 166.4	77.4	87.8	378.4	899.6	337.5	157.7	149.9	45.2	197.1	276.3	10.8
Slovenia	2.4	188.5	8.9	9.8	60.8	112.1	43.4	33.7	24.0	4.9	55.1	27.3	1.6
Slovakia	7.4	440.5	17.9	21.8	144.5	333.9	121.9	57.7	53.0	20.2	104.0	74.7	4.3
Finland	5.2	309.0	11.1	6.1	146.5	240.5	120.4	52.4	76.7	17.7	91.0	114.2	2.8
Sweden	11.2	635.2	31.8	20.6	355.6	648.5	270.7	182.7	200.8	80.9	296.4	286.5	5.2
United Kingdom	65.6	2 482.9	129.5	164.7	1 301.5	4 803.1	1 205.1	1 972.8	1 118.4	539.8	2 055.3	2 271.5	36.4

Source: Eurostat, http://ec.europa.eu/eurostat/statistics-explained/index.php/Structural_business_statistics_overview

Table 2 shows the number of employed persons in 2013 for EU countries. The largest number of employed persons in Croatia is in manufacturing, followed by distributive trades. Almost half million persons work in these two sectors. This is similar to other EU countries, although there are countries in which the number of employed persons in distributive trades is higher than in manufacturing, such as Denmark, Ireland, Greece or Spain.

It is also interesting to look at the wage adjusted labour productivity within the non-financial business economy.

Graph 3: Wage adjusted labour productivity within the non-financial business economy in EU in 2012 (in %)
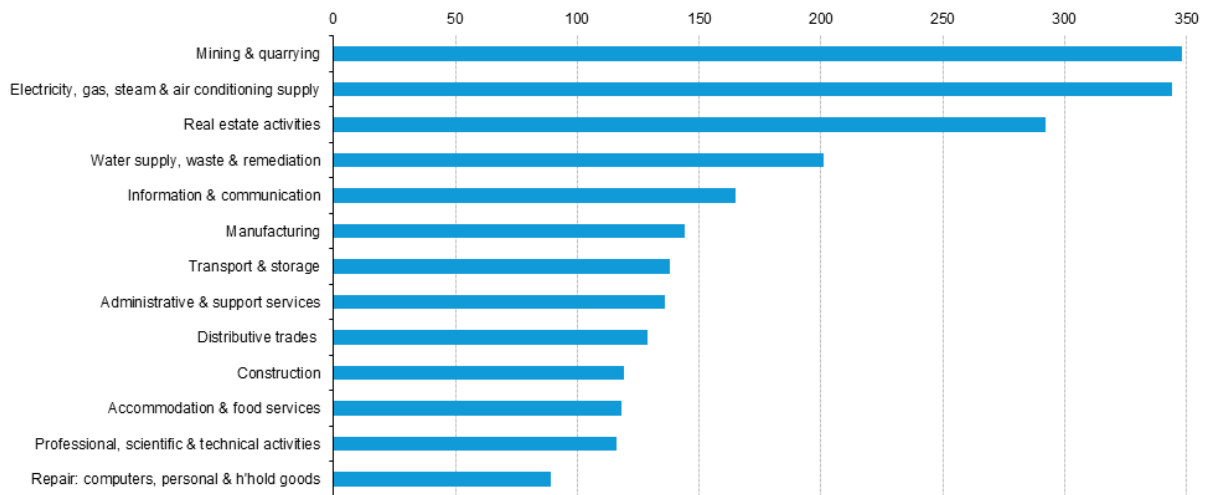

Source: Eurostat, http://ec.europa.eu/eurostat/statistics-explained/index.php/Structural_business_statistics_overview

Looking at the Graph 3, we can observe that highest wage adjusted labour productivity within the non-financial business economy is in Mining, following by electricity/gas supply and real estate activities. Distributive trade has less than the half of the value of the wage adjusted labour productivity for these first two sectors. The value for distributive trade is about 130%.

CROATIAN PRODUCTIVITY AND PROFITABILITY

Unlike most new member states, Croatia's GDP growth was driven essentially by employment growth, with limited productivity gains. This can be observed on Graph 4.

Graph 4: Productivity of Croatia and 10 new EU member states in 2002-2008 (left) and 2008-2013 (right)
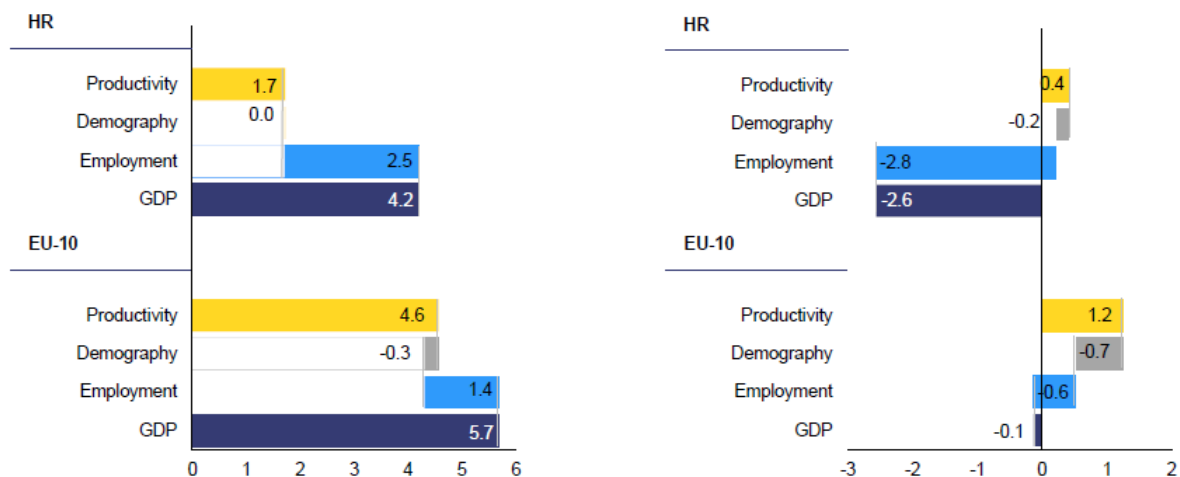
Real GDP growth can be broken down into productivity growth and employment growth — the latter being the outcome of demographic dynamics and labour market performance. While a bigger employed population can sustain growth in the short-to-medium term, productivity is the only source of growth in the long run. Against this background, it is worrying to note that Croatia's productivity growth had already been relatively weak before the crisis (left graph). It indicates that the common factors that shaped economic transition in the new member states have been put in Croatia to less productive use than in some other central and eastern European economies.

Graph 5: Productivity and employment dynamics (2008-14)
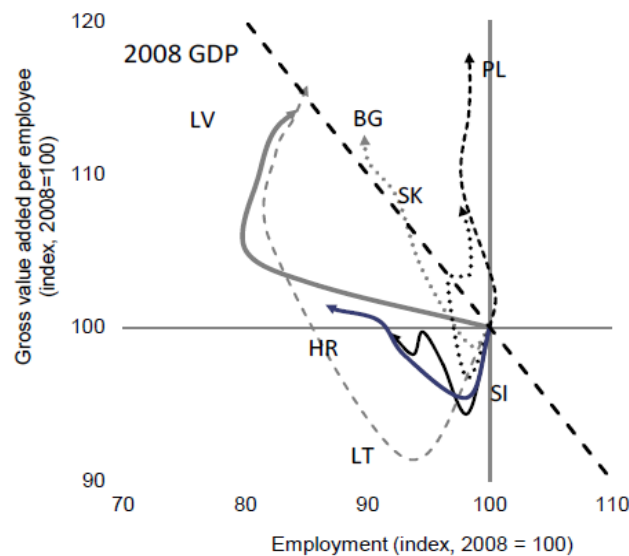
Graph 5 shows developments in labour productivity and employment in the post-crisis period in selected EU-10 countries. It shows that most have registered an increase in labour productivity along with a decrease in employment. This appears not to be the case for Croatia. Despite the depth of the recession and a loss of more than 200 000 jobs, Croatia has not yet profited from the opportunity to restructure for higher productivity.

Table 3: Major Croatian retailers

Retailer	Revenue (mlrd HRK)	Profitability of sales (%)
Konzum	13,45	0,81
Plodine	3,42	1,21
Lidl Hrvatska	3,27	3,33
Kaufland Hrvatska	3,00	-1,18
Tisak	2,75	0,57
Spar Hrvatska	2,21	-5,20
Tommy d.o.o.	2,06	2,86
Mercator-H	1,92	-13,22
Billa d.o.o.	1,64	-4,19
dm-drogerie markt d.o.o.	1,63	3,20

Source: www.jatrgovac.com/2015/06/sektorska-analiza-trgovina-na-malo-naznake-oporavka-maloprodaje

Table 3 shows the dana for ten major Croatian retailers in 2014. From Table 3 we can analyze the revenue and the profitability of sales for leading Croatian retailers. Six of them had positive profitability, and foru had negative profitability in 2014. The leading Croatian retailer is Konzum, which has four times larger revenue then the second largest retailer, Plodine, and its profitability of sales is 0.81.

CONCLUSION

In this paper we have discussed the Croatian retail sector with the special attention on the profitability. In the first part we have presented the theoretical background and we have given the overall literature overview. The second part of the paper is the empirical part in which we have analyzed the trends in the volume of Croatian retail sector in last ten years. The aim was to see where is Croatia today compared to all countries of the European Union and compared to ten "new" EU countries.

We have shown that Croatia fits to the average of the European Union regarding retail share in the economy. On the other hand there are different trends regarding retail trade volume annual rates of change. Contrary to the majority of EU countries, global economic crisis in Croatia lasted for longer time, and this is the reason why growth rates are mostly negative after 2008. The comparison of Croatia with ten "new" EU member states showed that the GDP growth in Croatia is generated mostly by employment, and less by productivity. This suggests that productivity in Croatia should be increased, and that this increase in productivity will lead to the rise of gross domestic product.

For further research, our analysis could be expanded on other variables which would enable to analyze more precisely the impact of each variable on the productivity in retail in Croatia and in the European Union.

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