

# The Influence of Working Assets Efficiency Management on the Profitability of Trade in Serbia

Radojko LUKIC<sup>1</sup>

## *Abstract*

*The efficiency of working assets (working capital) management is one of the crucial factors of performance in trade. It is quite understandable when one takes into account the fact that the biggest part of total assets of the trading companies is related to working assets, i.e. inventories as a part of current assets. With the application of appropriate methodology this paper explores determinants and impact of efficiency of working assets management on the profitability of trade in Serbia for the 2008-2012 period, based on an example of commercial companies which are required by law to submit the final financial statements.*

*General conclusion is that there was insufficient efficiency of working assets in observed period, which was reflected on the profitability of trade in Serbia. Related to this, it is necessary to take all relevant measures to improve the efficiency of working assets in order to increase the profitability of trade in Serbia. This especially applies to the application of modern information and communication technologies, particularly in the supply chain management (enterprise resource planning system, RFID).*

**Keywords** *accounts receivable, inventory, current liquidity, net working assets, cash cycle*

**JEL classification:** F65, L81, M40

## **Introduction**

Working assets (working capital) are gross portion of trade companies assets and they are the crucial factor of its success. Therefore, theoretical and practical attention is devoted to the issues of working assets management in trade companies. According to the nature of the business, specific principles and methods of managing working assets in trade companies are developed. Significant attention is paid to the inventory optimization, because being fully acquainted with them is a prerequisite for efficient management of working assets in order to increase the profitability of trade companies.

Considering this, our paper is thorough theoretical and practical analysis of the problems of working assets management. Particular attention is paid to the analysis of the efficiency of working assets and their impact on the profitability of trade companies in Serbia.

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## 1. Literature review

Extensive literature is devoted to the analysis of the efficiency of finance i.e. working assets management in trade companies (Evans, 2013). Different aspects are researched in this study, such as the efficiency of working assets management in trade companies in certain regions and countries, types of trading companies, store types (traditional and modern) and categories of products. Knowledge available from the literature in this paper serve as a fundamental basis for comprehensive study of a significant, complex and dynamic problem of working assets effects management on performance of trading companies, with special reference to Serbia.

## 2. Hypothesis, research methodology and the data

The main hypothesis (H1) in this paper is that the management of working assets is a crucial factor of success in trade companies. The second hypothesis (H2) proposes that the use of modern information and communication technology improves the efficiency of working assets management in trade companies, which positively impacts their profitability. All hypotheses are confirmed in this study.

Research methodology of given hypotheses is based on the use of comparative analysis, financial ratio analysis, DuPont system of analysis, the strategic profit model, correlation analysis and case studies.

In order to explore the problems through specific hypotheses we collected empirical data from the literature, Web sites and Serbian Business Registers Agency. The survey covers all trading companies that are required by law to submit a final financial report to the Serbian Business Registers Agency.

## 3. The impact of trade on the value creation in Serbian economy

The impact of trade on Serbian economy performance is very significant. In 2012 it participated in Serbian economy with 35.73%, with 19.31% of employees and total operating income of 36.58 %. Labour productivity (operating income / number of employees) was much higher in 2012 (almost twice) in trade than in entire Serbian economy (Table 1).

**Table 1. The impact of trade on economic performance of Serbia, 2012**

|  |            |
|--|------------|
| The share of trade in total number of companies in Serbian economy (%)                           | 35.73      |
| The share of trade in total number of employees in Serbian economy (%)                           | 19.31      |
| The share of trade in total Serbian economy income (%)   | 36.58      |
| Labour productivity (operating income / number of employees) in economy of Serbia (RSD thousand) | 8.110.155  |
| Labour productivity (operating income / number of employees) of trade in Serbia (RSD thousand)   | 15.365.359 |

**Note:** Author's calculation Source: The Republic of Serbia - Serbian Business Registers Agency

Because of the great importance of trade in creating sustainable value of the Serbian economy it must be provided in the future with favorable business environment, continuous development in tune with modern scientific and technical achievements, especially in the development of modern retail facilities and the use of modern information and communication technology (radio frequency identification: Radio-frequency identification - RFID, in addition to e-commerce - Internet shops).

#### 4. The characteristics and determinants of the efficiency of working assets management in trade in Serbia

Management of working assets in trade is very complex and is determined by a number of controlled and uncontrolled factors. These are: company size (measured by sales, assets, number of employees; in regression analysis these sizes are mainly measured by natural logarithm; Nasser, 2013), sales growth, current liquidity, net current assets, receivables turnover, inventory turnover, operational cycle, cash cycle, financial indebtedness, and the use of modern information and communication technology (Levy, 2007; Berman, 2010; Hayes, 2010; Nyamao, 2012; Ashraf, 2012; Vural, 2012; Naser, 2013; Ramappa, 2013; Brealey, 2013, European Working capital).

Special factors of the efficiency of working assets management are factoring, consignment sales and leasing.

#### 5. The relationship between working assets, short-term liabilities and revenues from sales in Serbia

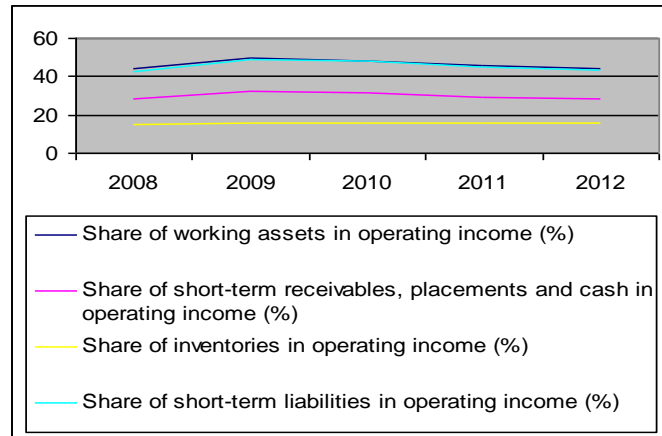
Table 2 and Figure 1 show the movements of the percentage of working assets, short-term receivables, placements and cash, inventories and short-term liabilities in operating income (sales revenue) in trade in Serbia for 2008-2012 period.

**Table 2. Share of working assets, short-term receivables and placements and cash, inventories, and short-term liabilities in operating income in trade in Serbia, 2008-2012**

|      | Share of working assets in operating income (%) | Share of short-term receivables, placements and cash in operating income (%) | Share of inventories in operating income (%) | Share of short-term liabilities in operating income (%) |
|------|---|--|--|---|
| 2008 | 44.48   | 28.81  | 15.21  | 42.88   |
| 2009 | 49.38   | 32.70  | 16.04  | 49.13   |
| 2010 | 48.21   | 31.43  | 16.08  | 47.89   |
| 2011 | 45.40   | 28.88  | 15.59  | 45.05   |
| 2012 | 44.55   | 28.15  | 15.56  | 43.77   |

**Note:** Author's calculation

**Source:** The Republic of Serbia - Serbian Business Registers Agency



**Figure 1. The share of working assets, short-term receivables and placements and cash, inventories, and short-term liabilities in operating income in trade in Serbia, 2008-2012**

Note: The author's figure

Source: Table 2

As it can be seen from the table and the figure, the percentage of total and specific categories of working assets and short-term liabilities in business revenues during the observed period had gradually decreased from 2009. It is specific that the percentage of working assets and short-term liabilities in operating income is almost the same. This shows that the working assets of the trade in Serbia were, almost as a whole, financed from short-term sources.

Sales revenue growth ( $\text{Sales}_{(x)} - \text{Sales}_{(x-1)} / \text{Sales}_{(x-1)}$ ) is a significant determinant of the efficiency of working capital management in trade. The sales growth rate (calculated as chain index) in the observed time period in trade in Serbia was: 2008 - 19.29%, 2009 - 3.02%, 2010 - 6.91%, 2011 - 11.10% and 2012 - 10.18% (calculation based on Serbian Business Registers Agency data). Its influence on the necessary working assets amount, therefore, increased since 2010 until the end of 2012.

## 6. Current liquidity and financial indebtedness of trade in Serbia

Current liquidity (working assets / short-term liabilities) is an important indicator of the efficiency of working assets management in all companies, including trading. It is considered that current liquidity is satisfactory if the ratio between working assets and short-term liabilities is 2: 1. It may be a bit lower if the financial market is developed (in observed country).

Financial indebtedness (assets / equity) is a key measure of solvency and business risk of all the companies, including trade. The greater the share of capital in total assets, the better solvency and lower business risk, and vice versa.

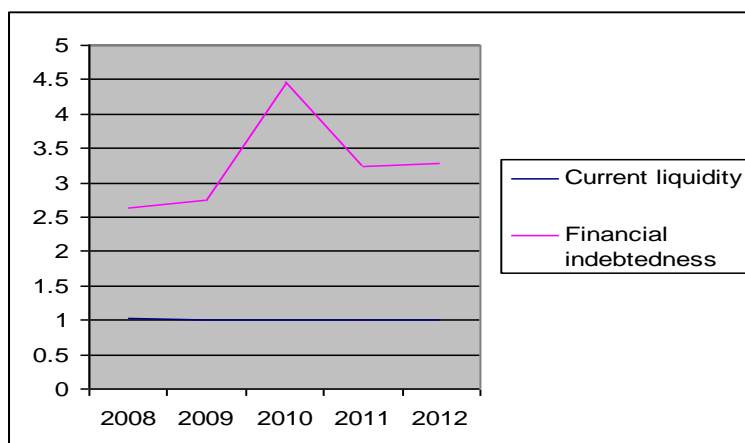
Table 3 and Figure 2 show the dynamics of the current liquidity and financial indebtedness of trade in Serbia for 2008 - 2012 period.

**Table 3. Current liquidity of trade in Serbia, 2008–2012**

|      | <b>Current liquidity</b> | <b>Financial indebtedness</b> |
|------|--------------------------|-------------------------------|
| 2008 | 1.03                     | 2.63                          |
| 2009 | 1.00                     | 2.75                          |
| 2010 | 1.00                     | 4.46                          |
| 2011 | 1.00                     | 3.23                          |
| 2012 | 1.01                     | 3.28                          |

**Note:** Author's calculation

**Source:** The Republic of Serbia - Serbian Business Registers Agency



**Figure 2. Current liquidity and financial indebtedness of trade in Serbia, 2008 – 2012**

**Note:** The author's figure

**Source:** The Republic of Serbia - Serbian Business Registers Agency

Current liquidity of trade in Serbia in the observed period was unsatisfactory, and manifested a slight decline tendency. Working assets were mainly financed from short-term sources of funds. In general, compared to the developed, controlled and comparable "industry standards" it is unfavourable (Industry Norms and Key Business Ratios - Credit Guru; [www.crediguru.com](http://www.crediguru.com)).

Financial indebtedness of trade in Serbia is also unfavourable, i.e. is high. In 2010 it significantly increased compared to 2008. In comparison to 2010 it declined in 2011 and gradually increased compared to that year and 2008. Generally speaking, in all observed years financial indebtedness was higher than in 2008 (taken as the first year of the economic crisis). Share of equity, therefore, decreased in the observed period, so as the solvency, and the risk of running business increased. Financial indebtedness of trade in Serbia was very unfavorable in relation to the relevant "industry standards" (Industry Norms and Key Business Ratios - Credit Guru; [www.crediguru.com](http://www.crediguru.com)) and developed market economies.

## 7. Net working assets of trade in Serbia

Net working assets (working assets - current liabilities) are an important indicator of the efficiency of working assets management in all companies, including trade. It shows part of working assets financed from long-term sources of funds. If it is higher, the company can take short-term borrowing at the bank or on the financial markets. Altogether, it shows the long-term liquidity - solvency of the company.

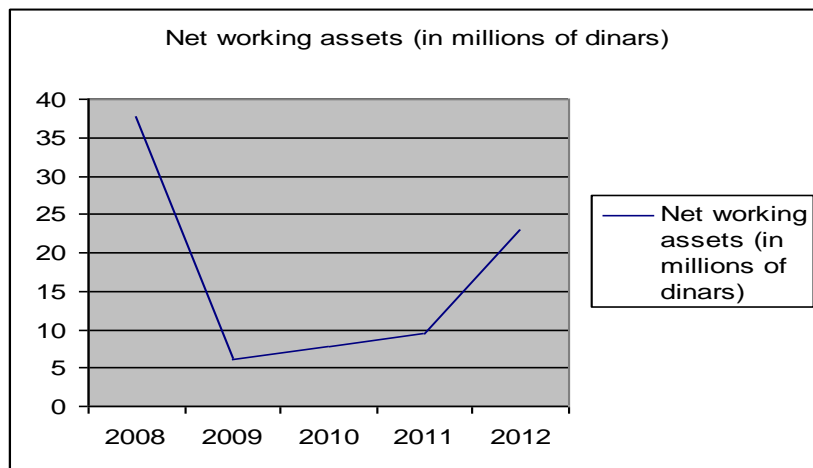
Table 4 shows the dynamics of net working assets and their relationship to inventory and operating income of trade in Serbia for 2008-2012 period. Figure 3 shows net working assets of trade in Serbia for the same time period.

**Table 4. Net working assets of trade in Serbia, 2008-2012**

|      | <b>Net working assets (in millions of dinars)</b> | <b>Net working assets / Inventories</b> | <b>Net working assets / Operating income</b> |
|------|---|---|--|
| 2008 | 37.767  | 10.48%                                  | 1.55%  |
| 2009 | 6.053   | 1.64%                                   | 0.26%  |
| 2010 | 7.833   | 2.00%                                   | 0.32%  |
| 2011 | 9.447   | 2.24%                                   | 0.34%  |
| 2012 | 23.181  | 4.99%                                   | 0.77%  |

**Note:** The author's calculation

**Source:** The Republic of Serbia - Serbian Business Registers Agency



**Figure 3. Net working assets of trade in Serbia**

**Note.** The author's figure

**Source:** The Republic of Serbia - Agency for Business Register

In the observed period net working assets of trade in Serbia were significantly reduced in all years compared to 2008, except in 2012, when they were significantly increased. On the whole, compared to "industry standards", as well as countries with developed market economies, net working assets of trade in Serbia were insufficient. Operating income generated very small amount of net working assets.

Given that most of the working assets in trade relates to inventories, it is important to observe the coverage of inventories with net working assets. In the observed period the inventories in trade of Serbia were slightly financed from long-term sources of funds. Compared to 2008, in all observed years, inventory financing from long-term sources of funds was substantially reduced. In 2012 there was slight increase of financing inventories from long-term sources of funds compared to 2009, 2010 and 2011. Therefore, inventories in trade in Serbia were mostly financed from short-term sources of funds.

In relation to the "industry standards" inventories were barely profitable, i.e. they insufficiently generated profit. The ratio of inventories net profit in trade in Serbia for observed years was: 2008 - 23.61%, 2009 - 20.43%, 2010 - 20.24%, 2011 - 21.7% and 2012 - 20.19% (calculated on the basis of data of Serbian Business Registers Agency). On its own way, it had an impact on the overall profitability of trade in Serbia.

### 8. The efficiency of working assets management in trade in Serbia

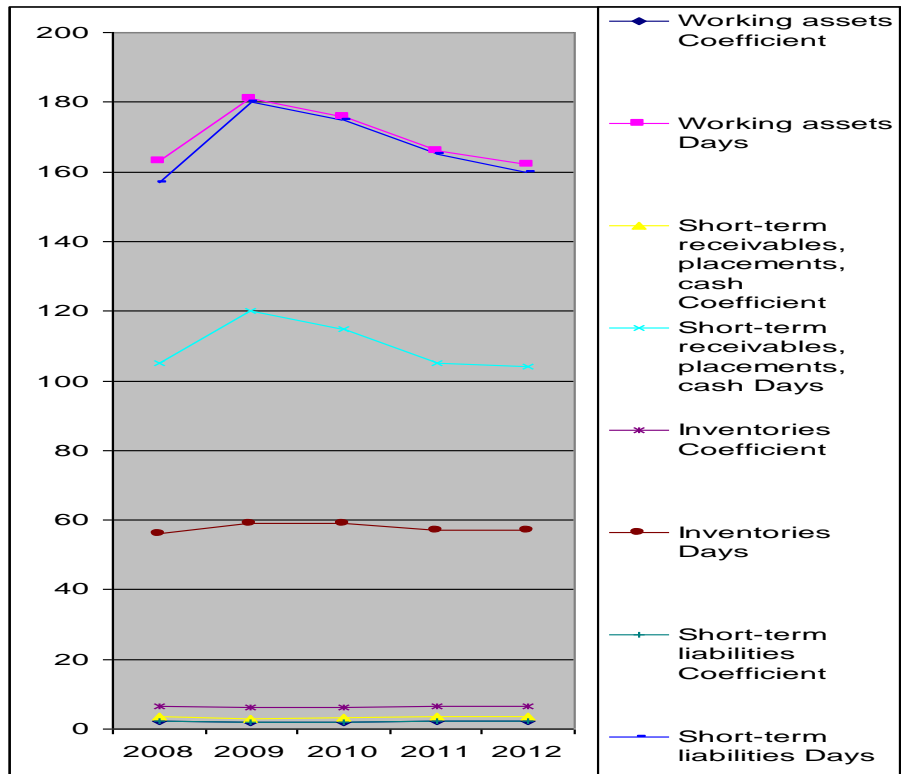
The efficiency of working assets management in trade in Serbia, will be examined through the analysis of coefficients, days of total working assets turnover, short-term receivables, placements and cash, inventories, and short-term liabilities. They are shown in Table 5. Figure 4 shows the dynamics of turnover of total and certain categories of working assets and short-term liabilities in days.

**Table 5. The efficiency of using working assets in trade in Serbia, 2008 – 2012**

|      | Working assets |      | Short-term receivables, placements, cash |      | Inventories |      | Short-term liabilities |      |
|------|----------------|------|--|------|-------------|------|------------------------|------|
|      | Coefficient    | Days | Coefficient                              | Days | Coefficient | Days | Coefficient            | Days |
| 2008 | 2.24           | 163  | 3.47                                     | 105  | 6.57        | 56   | 2.33                   | 157  |
| 2009 | 2.02           | 181  | 3.05                                     | 120  | 6.23        | 59   | 2.03                   | 180  |
| 2010 | 2.07           | 176  | 3.17                                     | 115  | 6.21        | 59   | 2.08                   | 175  |
| 2011 | 2.20           | 166  | 3.46                                     | 105  | 6.41        | 57   | 2.21                   | 165  |
| 2012 | 2.24           | 162  | 3.51                                     | 104  | 6.42        | 57   | 2.28                   | 160  |

**Note:** The author's calculation

**Source:** Republic of Serbia - Serbian Business Registers Agency



**Figure 4. Turnover of total and individual categories of working assets and short-term liabilities in trade in Serbia, 2008-2012**

Note. The author's figure

Source: The Republic of Serbia - Agency for Business Register

For the observed period the ratio of working assets turnover (operating income / working assets) in the trade in Serbia ranged from 2.02 (2009) to 2.24 (2008, 2012). Duration of one turnover in days (365/ working assets coefficient turnover) was between 162 (2012) to 181 days (2009). It decreased in the last years of analysis. By increasing revenues and with efficient management of working assets, particularly inventories, efficiency of working assets can be significantly increased. This is particularly important for national retail chains that have problems with working assets.

Coefficient of short-term receivables turnover, placements and cash (operating income / short-term receivables, placements and cash) in trade in Serbia ranged from 3.05 (2009) to 3.51 (2012). Days account receivable (365/ short-term receivables coefficient turnover, placements and cash) was between 104 (2012) and 120 days (2009). In relation to the "industry standard" - it is well above. According to the "industry standard" days account receivable in particular sectors is: wholesale: nondurable goods - 39.00, durable goods - 31.00; retail: ironware - 22.00, general goods - 4.00, cars - 9.00, clothing - 2.00, furniture - 16.00, and



restaurants - 1.00 (Industry Norms and Key Business Ratios - Credit Guru; www.crediguru.com). In Serbia, accelerating receivables, particularly "problematic" ones was partly solved with the development and implementation of factoring.

During the observed period inventory turnover ratio (operating income / inventory) in trade in Serbia was between 6.21 (2010) and 6.57 (2008). In relation to the "industry standard" it is well above. According to the "industry standards" inventory turnover ratio by sectors in days is: wholesale: nondurable goods - 4.63, durable - 7.36; retail: ironware - 4.22, general goods - 3.81, cars - 4.75, clothing - 2.96, furniture - 4.03 and restaurants - 35.65 (Industry Norms and Key Business Ratios - Credit Guru; www.crediguru.com). Inventory turnover ratio in days (365/ inventory turnover ratio) ranged between 56 (2008) and 59 days (2009, 2010).

Efficiency can be considerably improved with "optimizing" the size of inventories in line with demand trends, improving satisfaction of customers, and with elimination of excess inventory. It is believed that the key trends in inventory management, "optimization" of inventory size (i.e. policy of their reducing to the level of acceptable costs of customer service), mass adjustment (in terms of product width and product variety available to the customers), shorter product life cycle (inappropriate demand forecasting may results in inventories write-off), and market leaders significantly invest in technology and advanced planning systems (which increases their inventory turnover). The last trend is very significant for effective inventory management in trade. So, for example, leaders of companies such as Wal-Mart and Dell, use advanced supply chain management solutions and have higher inventory turnover compared to their industry competitors, as it can be seen from the data presented in Table 6.

**Table 6. The impact of technology and advanced planning systems in inventory turnover for selective company**

|                        | <b>Leader - Inventory turns</b> | <b>Laggard - Inventory turns</b> |
|------------------------|---------------------------------|----------------------------------|
| CPG Suppliers          | Procter&Gamble – 6.43           | Johnson&Johnson – 3.07           |
| Technology             | Dell – 64.34                    | Compaq/HP – 14.84                |
| Contract manufacturers | Flextronics – 7.29              | Solectron – 4.92                 |
| The retailer           | Wal-Mart – 7.29                 | K-Mart – 4.39                    |

**Source:** Steve Lewin, Inventory Planning & Optimization: Extending the Enterprise through the Supply Chain, Sourcetrax Corporation.

According to the given data, inventory turnover at Wal-Mart is 7.28, and for K- Mart it is 4.39 - which means it is much lower. This is due to delays in the implementation of advanced technologies and the planning system in the context of supply chain management.

In the observed period, the ratio of short-term liabilities turnover (operating income / short-term liabilities) of trade in Serbia ranged from 2.03 (2009) and 2.33 (2008). Short-term liabilities liquidation in days (365/short-term liabilities turnover ratio) was between 157 (2008) and 180 days (2009). The duration of short-

term liabilities liquidation is much longer than days account receivable. This means that suppliers had substantially credited the trade in Serbia.

Days account receivables, inventory turnover, and short-term liabilities liquidation affected the length of operating cycle (short-term liabilities liquidation duration and placement and cash + inventory turnover duration) and the cash cycle (short-term liabilities liquidation duration and placement and cash + inventory turnover duration – short-term liabilities duration liquidation). For observed period, operational cycle of trade in Serbia in days was: 2008 - 160, 2009 - 179, 2010 - 174, 2011 - 162 and 2012 – 161. Prolonged duration of one operating cycle itself shows unsatisfactory efficiency of working assets.

Cash cycle of trade in Serbia in observed period was: 2008 - 4, 2009 - (-1), 2010 - (-1), 2011 - (-3), and 2012 – 1. "The negative cash cycle" is a sign that the working assets were dominantly financed from short-term sources of funds.

Operational and cash cycle of trade in Serbia are, therefore, non-typical compared to "industry standards", as well as countries with developed market economies. In Europe, for example, the average operational cycle in retail is 69.8, and the cash cycle 26.6 days (European Working Capital, Annual Review 2012 - *Working capital: never been better* What the top-performing companies are doing differently, PWC).

In the last years of the observed period the efficiency of managing working assets was slightly improved in Serbia. Nevertheless, it is still far lower compared to other European countries. For the purpose of international comparison Table 7 shows certain categories of working assets turnover in the days for retail sales in Europe, as an important sector in total trade.

**Table 7. Retail in Europe - working assets turnover (in days)**

|   | <b>Benelux</b> | <b>Central Europe</b> | <b>France</b> | <b>Germany, Switzerland Austria</b> | <b>Italy</b> | <b>Nordics</b> | <b>Other Southern Europe</b> | <b>Russia, Ukraine</b> | <b>Spain, Portugal</b> | <b>UK, Ireland</b> | <b>Total</b> |
|---|----------------|-----------------------|---------------|-------------------------------------|--------------|----------------|------------------------------|------------------------|------------------------|--------------------|--------------|
| Working assets turnover in days – cash cycle* (DWC) | 33.0           | 37.1                  | 23.9          | 35.5                                | 58.3         | 35.4           | 27.0                         | 6.6                    | -5.9                   | 19.9               | 26.1         |
| Liabilities liquidation duration in days (DSO)      | 16.9           | 26.9                  | 32.0          | 21.5                                | 57.7         | 20.5           | 35.0                         | 15.9                   | 12.2                   | 19.5               | 24.4         |

|   | Benelux | Central Europe | France | Germany, Switzerland Austria | Italy | Nordics | Other Southern Europe | Russia, Ukraine | Spain, Portugal | UK, Ireland | Total |
|---|---------|----------------|--------|------------------------------|-------|---------|-----------------------|-----------------|-----------------|-------------|-------|
| Days account receivable (DPO)             | 26.1    | 41.2           | 49.9   | 31.7                         | 74.5  | 28.9    | 58.5                  | 45.1            | 43.4            | 45.5        | 43.7  |
| Inventory turnover duration in days (DIO) | 42.1    | 51.3           | 41.8   | 44.7                         | 75.0  | 46.3    | 50.5                  | 35.9            | 25.3            | 45.6        | 45.4  |

\*Working assets turnover in days - cash cycle is determined by the formula: Days account receivable + inventory turnover duration in days - liquidation of liabilities duration in days.

**Source:** European Working Capital, Annual Review 2012 - *Working capital: never been better* What the top-performing companies are doing differently, PWC.

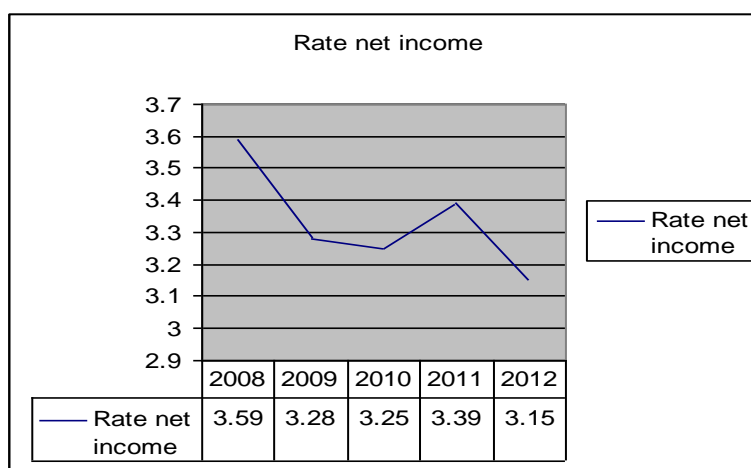
As a function of further continuous improvement of financial management in all companies, including trade, debt collection and liquidation of liabilities to suppliers is regulated by a special law in Serbia. It is now up to 40 days for public companies and 60 days for commercial. In the European Union payment deadline is 60 days (30 days for the public sector).

In order to increase the efficiency of using working assets in trade in Serbia modern information and communication technology, especially RFID, and enterprise resource planning systems (Enterprise Resource Planning (ERP) systems) will have to have more prominent influence in the future. This will, among other things, significantly reduce the theft of goods, which recently became more common in trade in Serbia, as it is in the West. For monitoring the impact of modern information and communication technologies on the efficiency of working assets management in trade in Serbia, in this paper we used the dynamics of relationship between the fixed assets and total assets (fixed assets / assets). In the observed period it was: 2008 - 46.75%, 2009 - 45.41%, 2010 - 35.49%, 2011 - 27.02% and 2012 - 33.48% (calculated on the basis of the Agency for Business Registers data). In the observed period, allocation of funds for modern information and communication technology in trade in Serbia decreased from year to year, except in 2012 when it increased slightly in comparison to 2008. Therefore, the impact of modern information and communication technologies on the efficiency of working capital in trade in Serbia is negligible. This especially applies to domestic retailers.

## **9. Effects of working assets management on the profitability of the trade in Serbia**

Management of working capital affects both the liquidity and profitability of the company, including trading. The net profit from operating income (net

income / operating income) in trade in Serbia was: 2008 – 3.59%, 2009 – 3.28%, 2010 – 3.25%, 2011 – 3.39% and 2012 – 3.14%. In the observed period it showed a cyclic movement and decreased compared to 2008 (Figure 5).



**Figure 5. The net income rate in trade in Serbia**

Note: The author's figure

Source: The Republic of Serbia - Serbian Business Registers Agency

In this paper, we use correlation analysis to identify the impact of inventory turnover in days, days account receivable, liabilities liquidation period, cash cycle, current liquidity and financial indebtedness, as independent variables, on the net operating (business) income as the dependent variable, in trade in Serbia for the period 2008 – 2012. Consequently, the general regression model is:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + \varepsilon$$

Where:

- Y = Rate of net income
- X1 = Inventory turnover in days
- X2 = Days account receivables
- X3 = Liability liquidation period
- X4 = Cash cycle
- X5 = Current ratio
- X6 = Financial indebtedness

According to this model Table 8 shows the correlation analysis of the interdependence of profitability and efficiency of working assets management in trade in Serbia for the 2008-2012 period.

**Table 8. Correlation matrix of interdependence of profitability indicators and efficiency of working assets management in trade in Serbia**

|                     |                                | Net income rate | Inventory turnover | Days account receivable | Liabilities liquidation period | Cash cycle | Current ratio | Financial indebtedness |
|---------------------|--------------------------------|-----------------|--------------------|-------------------------|--------------------------------|------------|---------------|------------------------|
| Pearson Correlation | Net income rate                | 1               | -.627              | -.261                   | -.415                          | .444       | .664          | -.652                  |
| Sig. (2-tailed)     |                                |                 | .258               | .672                    | .487                           | .454       | .222          | .233                   |
| N                   |                                | 5               | 5                  | 5                       | 5                              | 5          | 5             | 5                      |
| Pearson Correlation | Inventory turnover             | -.627           | 1                  | .858                    | .953(*)                        | -.643      | -.837         | .405                   |
| Sig. (2-tailed)     |                                | .258            |                    | .063                    | .012                           | .242       | .077          | .499                   |
| N                   |                                | 5               | 5                  | 5                       | 5                              | 5          | 5             | 5                      |
| Pearson Correlation | Days account receivable        | -.261           | .858               | 1                       | .953(*)                        | -.354      | -.541         | -.109                  |
| Sig. (2-tailed)     |                                | .672            | .063               |                         | .012                           | .559       | .346          | .861                   |
| N                   |                                | 5               | 5                  | 5                       | 5                              | 5          | 5             | 5                      |
| Pearson Correlation | Liabilities liquidation period | -.415           | .953(*)            | .953(*)                 | 1                              | -.610      | -.768         | .141                   |
| Sig. (2-tailed)     |                                | .487            | .012               | .012                    |                                | .274       | .130          | .821                   |
| N                   |                                | 5               | 5                  | 5                       | 5                              | 5          | 5             | 5                      |
| Pearson Correlation | Cash cycle                     | .444            | -.643              | -.354                   | -.610                          | 1          | .942(*)       | -.552                  |
| Sig. (2-tailed)     |                                | .454            | .242               | .559                    | .274                           |            | .017          | .335                   |
| N                   |                                | 5               | 5                  | 5                       | 5                              | 5          | 5             | 5                      |
| Pearson Correlation | Current ratio                  | .664            | -.837              | -.541                   | -.768                          | .942(*)    | 1             | -.592                  |
| Sig. (2-tailed)     |                                | .222            | .077               | .346                    | .130                           | .017       |               | .293                   |
| N                   |                                | 5               | 5                  | 5                       | 5                              | 5          | 5             | 5                      |
| Pearson Correlation | Financial indebtedness         | -.652           | .405               | -.109                   | .141                           | -.552      | -.592         | 1                      |
| Sig. (2-tailed)     |                                | .233            | .499               | .861                    | .821                           | .335       | .293          |                        |
| N                   |                                | 5               | 5                  | 5                       | 5                              | 5          | 5             | 5                      |

(\*) . Correlation is significant at the 0.05 level (2- tailed).

So there is a negative correlation between the rate of net profit and inventory turnover, days account receivables, the period of liabilities liquidation and financial indebtedness. However, the correlation between the rate of net income and cash cycle and current ratios, and it is relatively significant.

The positive correlation between inventory turnover, days account receivables and the period of liabilities liquidation is high. It is relatively significant between inventory turnover and financial indebtedness. Compared to other observed variables, the correlation between inventory turnover and them is negative.

The positive correlation between the period of account receivables, inventory turnover and liabilities liquidation period is very significant. Between the days account receivables and other observed variables the correlation is negative.

Positive correlation between the period liabilities liquidation, inventory turnover and days account receivable is very significant. Positive correlation between the period liabilities liquidation and financial indebtedness is weak. A correlation is negative between the period of liabilities liquidation and other observed variables.

Between the cash cycle and financial indebtedness there is a very significant positive correlation. Weak positive correlation is between the cash cycle and the rate of net profit. Among other observed variables and the cash cycle there is a negative correlation.

There is a significant positive correlation between current liquidity and the rate of net income and cash cycle. The correlation between current liquidity and other observed variables is negative.

Financial indebtedness is positively correlated with inventory turnover and the liabilities liquidation period. It is in negative correlation relation with the other variables.

In general, the efficiency of managing working assets is unsatisfactory, which it is in their own way affected the profitability of trade in Serbia in 2008-2012 period. Given that, it is necessary to take all relevant measures in the future to increase the efficiency of working assets management in order to improve the profitability of trade in Serbia. This primarily refers to the application of modern technology and advanced planning systems in supply chain management.

### **Conclusion**

The issue of working assets management and its impact on the performance on trade companies is being intensively researched due to their importance, both in theory and practice. Recently, special attention has been given to research of effects of working assets management on the performance of trading companies in certain countries, retail formats and product categories. With the application of relevant research methodology this paper deals with the efficiency of working assets management and its impact on the profitability of trade in Serbia for the period 2008-2012.

The general conclusion is that in this period there was insufficient efficiency of working assets management in trade companies in Serbia compared to "industry standards" and countries with developed market economies (including Europe and the member states of the European Union). Because of the financial indiscipline and unfavorable foreign exchange fluctuations, accounts receivable is slow, so as well liquidation of liabilities. Inventories are mostly financed from

short-term sources of funds (i.e. supplier's credit). Low standard of customer / consumer affected the inventory turnover. Net working assets are at a very low level. All of this had an adverse impact on their profitability.

In order to improve the efficiency of working assets and, thus, profitability of trading companies in Serbia it is necessary to take all relevant measures in the future, primarily measures internal in its nature. This especially applies to the use of modern information and communication technologies in supply chain management (enterprise resource planning system, RFID).

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