

# ILLIQUIDITY RISK OF POLLUTING ENTERPRISES IN SERBIA

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***Abstract:** The aim of this paper is to analyze the liquidity risk of selected polluting enterprises in Serbia. The specific objective of the paper relates on the comparison of polluting medium enterprises liquidity risk with liquidity of medium enterprises sector and Serbian economy. Illiquidity risk assessment is determined by liquidity indicators, net working capital and cash flow statement. The research is conducted on the group of 48 polluting medium-sized enterprises whose plants are the major sources of environmental pollution in Serbia. Selected liquidity indicators are determined by financial statements information disclosed by Serbian Business Registers Agency. The quantitative and qualitative analysis covers the period from 2010 to 2015. The values and trends of liquidity indicators of the polluting medium enterprises group represent an unfavourable assumption for their short-term financial stability. Positive net working capital shows that polluting medium enterprises have sufficient long-term fund to cover long-term assets and the part of their inventories.*

***Keywords:** Illiquidity risk, cash flow analysis, polluting enterprises, medium enterprises, Serbian economy*

## 1. INTRODUCTION

Economic growth and green growth that is based on care for the environment are the processes that should be realized simultaneously. Green growth as an approach should contribute to the implementation of the concept of sustainable development in economic, environmental and social dimension (Jovanović-Gavrilović, Minić, 2012). Economic development in which environmental damage penalizes economic growth can be defined as unsustainable development (Đurović, Cvetanović, 2016).

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Environmental protection is a prerequisite for a country development, as well as for the growth and progress of its business entities. The characteristics of social responsible companies are the application of modern manufacturing technologies influencing on reduction of environmental pollution and the environmentally justified way of doing business.

Eco-based capital investments at the state level depend on the country's solvency. Investing in new manufacturing technologies and modern business systems is associated with short-term and long-term financial stability, at the level of individual entities. Polluter companies' expenditures based on investments in ecological production, preventive and environmental protection, environmental pollution taxes and other unforeseen expenditures imply that enterprises are able to operate with satisfactory liquidity, i.e. to ensure that sources of funding are available to service matured liabilities.

The aim of this paper is to analyze the liquidity risk of selected polluting enterprises in Serbia using the accrual liquidity indicators as compared to the cash flow liquidity indicators and net working capital as a financial tool which represents corporate liquidity. The specific objective of the paper relates on the comparison of polluting medium enterprises liquidity risk with liquidity of medium enterprises sector and Serbian economy. The authors consider the main hypothesis of this research that group of polluting medium enterprises is exposed to illiquidity risk, but less than medium-sized enterprises sector and economy as whole.

Illiquidity risk assessment is determined by liquidity indicators, net working capital and cash flow statement. The accrual and cash flow approaches of liquidity analysis are used in the paper as complementary approaches. Research methodology is based on the financial, descriptive, comparative and statistical analysis. The research is conducted on the group of 48 polluting medium-sized enterprises whose plants are the major sources of environmental pollution in Serbia. The sample of the enterprises was selected from the Pollutant Release and Transfer Register in Serbia (PRTR register of large sources of pollution), reported by the Serbian Environmental Protection Agency. The liquidity analysis includes the comparison between polluting medium enterprises, the sector of medium enterprises and Serbian economy over a six-year period, on annual and average level. Selected liquidity indicators are determined by financial statements information disclosed by Serbian Business Registers Agency. The quantitative and qualitative analysis covers the period from 2010 to 2015.

This research can be accepted in academic and industry practice. The research results can be of interest to a variety of enterprises stakeholders, including financial analysts, policy makers, and researchers.

Illiquidity problem in Serbian economy makes it difficult for enterprises to doing business. The key originality value of this paper is in the fact that the assessment of the illiquidity risk is based on the selected liquidity indicators for medium-sized enterprises whose plants are the major sources of environmental pollution in Serbia.

In accordance with the main objective of this research, besides introduction and conclusion, this paper also includes three integral parts. The first part addresses to polluting enterprises in Serbia. In the second part of the paper, the liquidity analytical tools were identified. In the third part after the methodology was presented as well as the sample of the enterprises and data sources, the liquidity risk of the selected polluting medium enterprises was analyzed. This part includes the comparison between polluting medium enterprises, the medium enterprises sector and Serbian economy as whole.

## **2. POLLUTING ENTERPRISES IN SERBIA**

Financial stability is the relevant determinant of continual business and growth of an enterprise. Ecologically responsible business operations as a prerequisite for economic prosperity and corporate image enhancement imply the undertaking of adequate measures to prevent or reduce environmental pollution (Stevanović, Belopavlović, Lazarević-Moravčević, 2014). All the companies which inadequate activities lead to the pollution of the environment should bear the responsibility for damaging its quality. The Environmental Protection Law (2016) defines that enterprises in Serbia can apply technologies and processes that meet environmental protection requirements.

Fulfilling the responsibilities to cover environmental protection costs and investing in eco production comprises the ability to maintain liquidity that is a prerequisite for long-term financial stability. Polluter companies' expenditures on behalf of preventive environmental protection, pollution charges and other unforeseen expenditures imply that the company is able to operate liquidly. Preventive protection costs created aiming to mitigate and reduce pollution can also be seen as an investment resulting in improvement of business performance and responsible business (Knežević, Mizdraković, Arežina, 2012). The additional expenditure of polluters may comprise also the environmental control costs incurred by

controlling and monitoring the process of production, transport and waste disposal (Jakovčević, 2008).

Ecologically justified production and products and services sale not endangering the environment and human health is a characteristic of socially responsible enterprises. Đukić (2012) notes that environmental standards and sustainability criteria have to be relevant assumptions of the business and production and sales of goods, products and services. Companies which activities lead to environmental pollution are legally obliged to submit annual reports on sources of pollutants on the basis of emissions into air, water, soil and waste management. These are companies that have one or more plants representing sources of pollution. Environmental reporting entity is obliged to keep daily record of emissions of polluting substances, that is, generation and waste management, to submit annual reports on prescribed forms to the Environmental Protection Agency or local self-government community.

Large sources of environmental pollution are registered in the national database. The establishing a national electronic database comprising that information is one of the steps leading to the improvement of regulations and information system related to environmental protection (Stevanović, Belopavlović, Lazarević-Moravčević, 2016). Pollutant companies' listings are classified according to the registry types for which the data are submitted. The Environmental Protection Agency compiles a list of companies that are required to report to the National Register of Pollutant Sources.

Besides the Pollution Release and Transfer Register (PRTR), there is a list of companies with reporting obligation for products that after the use become special waste streams, a list of waste management companies as manufacturer, waste exporters and importers, or as landfill or treatment plants operators. Additional registers of the Serbian Environmental Protection Agency refer to companies submitting reports on packing placed on the market and local communities having responsibility to report on communal waste ([www.sepa.gov.rs](http://www.sepa.gov.rs)). The PRTR includes facilities representing the most important sources of pollution in Serbia in the energy, production and processing of metals, mineral industry, and chemical industry, waste and wastewater management, paper and wood products, intensive livestock production and fisheries, food industry and other industrial branch.

The PRTR large source pollutant register comprises data systematized based on the information provided by pollutants in prescribed forms ([www.sepa.gov.rs](http://www.sepa.gov.rs)). For individual companies the reporting obligation is defined at plant level. General information on the source of pollution, which is, inter alia, related to the data on

spent fuel in the plant, plant products and raw materials are provided within Form 1. The forms 2, 3 and 4 respectively show data on air, water and soil. The Agency presents the number of pollution sources for which the companies are responsible to submit the mentioned forms. The types and quantities of produced waste, as well as the managing way of individual waste types, are provided in Form 5.

### **3. ANALYTICAL TOOL OF LIQUIDITY ANALYSIS**

The company's financial stability is the subject of analysis of all interest groups. Different interest groups have both, common and specific information requirements regarding company performances. The degree of exposure of an enterprise to the business-financial risks is relevant for decision-making on cooperation. The ultimate interest of the creditor is the collection of claims on the basis of approved loan and interest within the foreseen deadlines, and collection of principal and interest from financial investments. Existing and potential capital owners make up the interest group of companies that bear the highest risk of investing capital in the company and accordingly expect long-term financial stability of the company and adequate returns. The subject of expectations of other external and internal stakeholders is the ability to pay off the company's liabilities.

The company risk can be defined from different aspects. Financial risk implies the aspect of ability to settle liabilities both on maturity, and over a longer period. Stickney (2007) illustrates the calculation and interpretation of risk ratios focusing on both, short-term liquidity risk and long-term solvency risk. A wider definition of risk implies observing the risk of real yield gains in relation to the expected gains.

The risk assessment of investment and co-operation with the company can be carried out on the basis of information from the financial statements. The fact is that there is no guarantee that risk-based financial statements can positively be considered in a systematic manner (Damodaran, 2007, 100), but the financial statements are a relevant source of information representing a basis for risk measurements. Liquidity risk analysis implies an analysis of the company's short-term financial stability. Liquid company is the one that is able to provide sufficient cash for continuous business and compliance with its liabilities. A company with the lower level of liquidity risk has a greater ability to maintain short-term financial stability.

The risk of liquidity or insolvency can be assessed on the basis of financial indicators, while financial indicators are insufficient to assess the risk that actual returns could be lower than expected. However, for this type of risk, the other information is required.

The financial ratios differ in whether levels (amounts shown on the balance sheet) or flows (cash inflow and outflow) are used to gauge the relationship (White, 2003, 124). Indicators used for assessing financial stability risk may only be based on the Balance sheet and Income statement for a given period of time. There is also a set of indicators that are additionally based on cash flows as well as a group of risk indicators based on market information (Malinić, 2009). Stevanović and Belopavlović (2011) explain the measuring of short term and long-term financial stability indicators. Anđelić, Gajić and Ilić (2016) discuss the problems of the financial management using modern methods of financial management that include liquidity risk analysis. Đuričin and Bodroža (2013) inter alia use business risk drivers analysis and liquidity analysis in performed order to evaluate level of agro meteorological conditions impact on agricultural financial performances.

A static liquidity analysis based on the items of the balance sheet represents the initial phase of the analysis of short-term financial stability. The liquidity analysis carried out on the basis of the total value of current assets, the value of certain items of current assets and short-term liabilities generates risk indicators as a result of financial and structural disturbances.

Except Current ratio and Quick ratio as traditional ratios, a ratio that incorporates the amount of cash and cash equivalents on the balance sheet helps the analyst to evaluate short-term liquidity. If the relation between cash and cash equivalents on one hand, and short-term liabilities on the other hand, is lower than 25% than it can be used as the signal of insolvency risk (Malinić, 2009).

The coverage degree assessment of the short-term liabilities by the company's current assets is not sufficient for the assessment of its short-term financial stability. The assessment of the structure and quality of current assets, and the maturity of short-term liabilities show good or bad assumptions for managing enterprise's short-term stability. Adequate liquidity management comprises monitoring and adjusting the assets maturity structure and sources of funding, evaluation of company's asset and liabilities management efficiency, as well as forecasting cash inflows and outflows in the upcoming period.

Cash flow from operating is used as a measure of the company's ability to generate cash in its business activities to be used to cover current liabilities. After the adoption of SFAS No. 95 Giacominio and Mielke (1993) introduce the cash flow indicators, primarily using cash flows based on operating activities. A negative Cash flow from operating discovers or warns of a liquidity and business problems. The more permanent negative cash flow from operating indicates the company's exposure to long-term financial risk. In addition to the absolute amount of the cash

flow from operating, the risk of default is under the influence of changes in these cash flows. Most models for assessing the risk of non-fulfillment use financial indicators to measure cash flow coverage (Damodaran, 2007, 175). Ratio named Operating Cash Flow to current liabilities ratio is one of them. The earnings quality indicators based on cash flows can also be used as indicators of possible business-financial problems. The quality of revenue indicator may indicate an increased risk of illiquidity (Mulford, Comiskey, 2005).

Indicators that warn about jeopardizing liquidity, contribute to increasing risk that long-term financial stability is compromised. Disruption of the existing financial structure affects the indicator of indebtedness and implies exposure to higher financial risks. The indicator of potential indebtedness (Malinić, 2009) other than actual liabilities includes potential liabilities. The disclosure of information on potential liabilities contributes to the perceiving company's financial risk because conditional liabilities can become real under certain conditions. Financial and structural risk indicators are also a sign of the ability to pay interest rates.

Net working capital is a financial stability tool expressed in absolute money units. Net working capital represents the security margin for the creditors. It is part of equity and long-term borrowed capital intended for financing current assets. The amount of the net working capital needs to be tailored to the needs of long-term financing of a current assets' part that will not be funded from short-term capital sources. Own net working capital shows the extent the fixed assets are financed from their equity.

## **4. LIQUIDITY ANALYSIS OF SELECTED POLLUTING ENTERPRISES IN SERBIA**

### **4.1. The methodology and data**

The research methodology in this paper is primarily based on financial, descriptive and comparative analysis. Mainly, the analysis included selected medium-sized enterprises whose plants are the major sources of environmental pollution in Serbia. The sample of analyzed enterprises was selected from the Pollution Release and Transfer Register of large sources of pollution. The sample encompasses both the submitting enterprises and the ones that do not submit the reports to the Serbian Environmental Protection Agency. The check of the list of the selected enterprises that are included in National Pollution Sources Register was conducted during May 2017 using the Environmental Protection Agency of Republic of Serbia web site.

For the comparative analysis of the liquidity, authors use three groups of the enterprises. The first group of the enterprises includes polluting medium-sized enterprises, the second group represents all medium enterprises and the third group includes Serbian economy as a whole. Indicators that measure illiquidity risk of all analyzed groups are reported cumulatively.

Liquidity indicators were the initial indicators that are analyzed in this paper. Liquidity indicators of the selected group of enterprises were conducted by observing the relation between current assets and short-term liabilities (Current Ratio) as well as the relation between monetary assets and short-term liabilities (Quick Ratio). Cash flow liquidity indicator as a ratio between net operating cash flow and short-term liabilities shows the extent in which current liabilities are covered by net cash inflow from operating activities (Cash Flow Ratio). Also, illiquidity risk assessment is determined by net working capital determinants and cash flow statement items.

The selected analytical tools of liquidity are determined using the data from financial reports for individual enterprises published by Serbian Business Registers Agency. Quantitative and descriptive analysis of financial reports is carried out for the period between 2010 and 2015. Some indicators were analyzed on a yearly basis and also average for five years period 2010-2015. The publication of the Serbian Business Registers Agency named Financial Statements Annual Bulletin contains aggregate data on the financial state and business performance of enterprises in the Republic of Serbia based on the Balance sheet, Income Statement and Statistical Annex. The fact that Bulletin doesn't have data from Cash flow statements is the reason why Cash flow ratio is not calculated for Serbian Economy.

## 4.2. Research results

**Liquidity indicators.** Satisfactory relations between the individual assets and liabilities are in the function of generating of the earnings and the net cash flows that provide the assumption for health financial position of enterprises (Vukelić, Stevanović, Belopavlović, 2014, 681). The values and trends of liquidity indicators of the polluting medium enterprises group represent an unfavourable assumption for their short-term financial stability.

The values of current ratio of the selected polluting medium enterprises are below the usual normal (2:1), but they are above 1. The current liabilities are covered by current assets even in 2013 when the ratio is reduced to the lowest level. The current liquidity of the polluting medium enterprises was slightly growing after



2013. The coverage of short-term liabilities by current assets was 116% and 118% respectively.

The values of current ratio are above the values of current ratio of medium enterprises sector and Serbian economy. Current ratio of economy as a whole is on the level below the 1 and forecast bad financial structural assumption in terms of ability to service matured liabilities in due time.

By excluding less liquid assets from current assets, the situation is different. The value of monetary assets is not sufficient to cover short-term liabilities in the analyzed period. The coverage of short-term liabilities by the monetary assets for the selected polluting medium enterprises group at a six-year average is at the level of 70%. The values of quick ratio are below the traditional normal (1:1) for all of three analyzed groups that represent too an unfavourable assumption for ability to service matured liabilities. The Quick ratio of the selected polluting medium enterprises is below the quick ratio of medium enterprises sector in all analyzed years but above the quick ratio of Serbian economy.

**Table 1: Comparative analysis of the liquidity indicators for the period 2010-2015**

Indicators	2010	2011	2012	2013	2014	2015
<b>Current ratio</b>						
Polluting medium enterprises	1.28	1.28	1.21	1.08	1.16	1.18
Medium enterprises sector	1.15	1.18	1.18	1.08	1.05	1.12
Serbian Economy	0.96	0.94	0.97	0.91	0.89	0.89
<b>Quick ratio</b>						
Polluting medium enterprises	0.76	0.77	0.71	0.63	0.66	0.70
Medium enterprises sector	0.81	0.82	0.80	0.73	0.70	0.74
Serbian Economy	0.68	0.67	0.70	0.64	0.63	0.62
<b>Cash flow ratio</b>						
Polluting medium enterprises	-0.16	0.06	0.09	0.07	0.09	0.18
Medium enterprises sector	0.07	0.10	0.08	0.05	0.06	0.08

Source: Authors' calculations based on Serbian Business Registers Agency data

When we rely on the cash flow ratio, we can notice that all groups of analyzed enterprises have liquidity problem because indicators are far below the usual normal (0.4:1). Comparing cash flow ratio of polluting medium enterprises with the values of ratio of medium enterprises sector, we can see similar values. After liquidity indicator analysis, we can conclude that the liquidity is very difficult to maintain.

**Net working capital - NWC.** The changes in the net working capital value show current liquidity tendencies. The net working capital plays an extremely important

role in assessing the ability to sustain long-term financial stability of a company. It indicates both the extent to which long-term capital is sufficient to cover not only permanent property but also inventories requesting long-term financing.

The lack of own capital for the financing fixed assets is the characteristic of selected pollution medium enterprises in the analyzed period. The trend of their net working capital determinants during periods is shown in the table 2.

The negative net working capital, along with a negative trend since 2011, shows that such coverage of fixed assets from its own sources is unsustainable for a long time. Determinants analysis the own net working capital shows that equity value is increasing over the period, but this is insufficient to cover fixed assets which value also increases. Increasing the value of fixed assets may at first glance exacerbate the image of the net working capital, but investing in expansion and modernization of fixed assets is a good reflection of the company's business. Although equity and fixed assets are relatively comparable over the period, the lack of equity for financing the fixed assets is increasing because the loss above equity value reduces equity since 2012. Loss above equity most reduces equity in 2015.

**Table 2: Net working capital of selected polluting medium enterprises**

in mil. RSD

Positions	2010	2011	2012	2013	2014	2015
Equity	32,244	34,926	34,725	38,100	39,992	42,721
Loss above Equity	296	0	1,173	1,162	1,825	3,221
Fixed Assets	42,085	43,932	43,908	49,369	51,777	55,655
<b>Own Net working capital</b>	<b>-10,137</b>	<b>-9,007</b>	<b>-10,356</b>	<b>-12,431</b>	<b>-13,610</b>	<b>-16,156</b>
Long-term Provisions and Liabilities	16,642	15,920	16,159	14,696	19,180	23,172
<b>Net working capital</b>	<b>6,505</b>	<b>6,914</b>	<b>5,803</b>	<b>2,264</b>	<b>5,570</b>	<b>7,016</b>
<i>Deficiency of Net working capital</i>	<i>-5,750</i>	<i>-6,138</i>	<i>-8,694</i>	<i>-12,601</i>	<i>-11,977</i>	<i>-10,400</i>

Source: Authors' calculations based on Serbian Business Registers Agency data

Long-term borrowed capital compensates the lack of own sources of funding to cover fixed assets as a whole. Positive net working capital shows that polluting medium enterprises have sufficient long-term funds to cover long-term assets and the part of their inventories. The net working capital has the lowest level in 2013. The increase in net working capital demonstrates a tendency to improve liquidity since 2014. The significant reason for this is the increase in value of long-term provisions and liabilities, which in 2015 was 57% of long-term provisions and liabilities value from 2013.

Considering the relation between net working capital and inventory value, there was noticed a lack of net working capital to cover inventories of selected polluting enterprises throughout the analyzed period. The biggest drawback is present in 2013 when only 15% of the inventory value is covered by net working capital. Improving financial stability has been noticed for the next two years when polluting medium enterprises cover 32% and 40% of inventories by net working capital respectively. The comparative analysis of Net working capital for the period 2010-2015 is presented in the table 3.

Own net working capital is negative for all three analysed groups. Loss above equity most reduces the equity of the polluting enterprises group. Loss above equity is about 3.4% of the equity value on average, while the percentage for the medium-sized enterprises is 10%. Loss above equity value of Serbian economy is even about 20% of the equity value.

**Table 3: Comparative analysis of net working capital for the period 2010-2015**

	in mil. RSD		
Positions	Polluting medium enterprises	Medium enterprises	Serbian Economy
Equity	37,118	587,135	5,432,127
Loss above Equity	1,280	57,937	1,089,148
Permanent Assets	47,788	736,721	7,013,184
<b>Own Net working capital</b>	<b>-11,949</b>	<b>-207,523</b>	<b>-2,670,205</b>
Long-term Provisions and Liabilities	17,628	277,572	2,192,114
<b>Net working capital</b>	<b>5,679</b>	<b>70,049</b>	<b>-478,091</b>
<i>Deficiency of Net working capital</i>	<b>-9,260</b>	<b>-135,540</b>	<b>-1,868,549</b>

Source: Authors' calculations based on Serbian Business Registers Agency data

Net working capital of selected polluting enterprises in average covers the 39% of inventory value, and it is similar in medium enterprises sector where net working capital in average covers about 36% of inventory value. Net working capital in average covers 16% and 11% of current assets value respectively in both mentioned group of enterprises. The fact that short-term sources finance a significant part of the inventories of analyzed groups of companies is a sign of their relatively low solvency. The first two analyzed groups are in better position than the Serbian economy, which notices negative value of own Net working capital and Net working capital. The net working capital analysis of the Serbian economy shows that the part of the fixed assets and inventories are financed from short-term sources (Stevanović, 2015). The lack of net working capital is considerably higher taking into account the importance of long-term sources for inventories financing.

**Cash flows.** The cash inflows and cash outflows trends of selected polluting enterprises are shown in the table 4. Net cash flow from operating activities is positive from 2011 when their ability to generate cash from internal sources begins. Cash inflows from operating activities are gradually increasing in the observed period, and largely follow the net operating cash flow trends. Cash outflows from operating activities were significantly reduced in 2011. In the following period the operating cash outflows and operating cash inflows grow.

The trend of operating cash inflows and outflows in 2015 is disproportionate. Operating cash inflows noticed maximum value in relation to the observed period, while operating cash outflows were only 6% of the ones from the previous year.

**Table 4: Cash flow analysis of selected polluting medium enterprises**

in mil. RSD

<b>Cash flows</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Cash inflow from operating	2,366	2,833	4,150	4,907	6,556	6,813
Cash outflow from operating	6,159	1,184	1,600	2,561	3,299	213
<b>Net operating cash flow</b>	<b>-3,793</b>	<b>1,648</b>	<b>2,550</b>	<b>2,345</b>	<b>3,257</b>	<b>6,600</b>
Cash inflow from investing	1,083	1,242	947	813	867	1,179
Cash outflow from investing	2,689	2,952	3,606	3,257	4,030	7,081
<b>Net investing cash flow</b>	<b>-1,606</b>	<b>-1,710</b>	<b>-2,659</b>	<b>-2,444</b>	<b>-3,163</b>	<b>-5,902</b>
<b>Net cash after investing</b>	<b>-5,399</b>	<b>-62</b>	<b>-109</b>	<b>-99</b>	<b>94</b>	<b>699</b>
Cash outflow from financing	3,986	5,322	3,718	5,737	7,463	11,835
<b>Net cash after debt servicing</b>	<b>-9,384</b>	<b>-5,384</b>	<b>-3,827</b>	<b>-5,836</b>	<b>-7,370</b>	<b>-11,137</b>
Cash inflow from financing	9,804	5,291	4,383	6,116	7,192	11,995
<b>Net cash after external financing</b>	<b>419</b>	<b>-93</b>	<b>556</b>	<b>280</b>	<b>-178</b>	<b>859</b>

Source: Authors' calculations based on Serbian Business Registers Agency data

The extremely uneven trend of operating cash inflows and outflows is unsustainable for a longer period of time. Prolonging the payment of operating liabilities and collection of claims from earlier periods may be the reason for such a trend, showing that a significant increase in operating cash outflows can be expected in the coming period.

Investing cash outflows are on the rise, particularly in 2015, when selected polluting enterprises group covers net investing cash flows in the entirety from the internally generated cash. The net cash flow after investing shows that the group in 2014 and 2015 covers one part of the debt from operating and investing cash sources. Investing cash inflows, mainly the result of property, plant and equipment sale, and net cash inflows from financial investments, are variable and amount annually between 17% and 40% of the investing cash outflows, depending on the year of observation.

During the period, the financial net cash inflow of the enterprises is unstable. The cash inflows and outflows from financing increase since 2013. Cash outflows from financing activities refer to treasury shares, servicing debts and the other financial liabilities. For the debts servicing and share repurchase enterprises use external financing sources entirely, for the period 2010-2013. In the past two years, a part of the operating and investing cash resources are used for these needs. Observing the net cash flow after debt servicing and financing cash inflows values, the conclusion is that enterprises in 2011 and 2014 use cash stock to cover the lack of financing sources. Positive net cash after external financing in other years discover that enterprises increase cash and cash equivalents value.

## **5. CONCLUSION**

The research results confirm the main hypothesis that the group of polluting medium enterprises is exposed to the illiquidity risk. The values and trends of liquidity indicators of the polluting medium enterprises group, recorded during the period 2010-2015, represent an unfavourable assumption for their short-term financial stability. However, it is still a more favourable than liquidity indicators values and trends in the Serbian economy. The rooted financial imbalance is a general characteristic of Serbian economy. The structural imbalance of resources and their funding sources followed by a continuous accumulation of losses, deteriorating liquidity and increasing indebtedness reflect the financial position of the economy as a whole.

The results of the analysis based on the accrual liquidity indicators is best compared against the cash flow liquidity indicator and net working capital before reaching any conclusions regarding the liquidity risk of enterprises. The cash flow liquidity indicator shows a weaker liquidity position than is indicated by the accrual liquidity indicators, but positive net working capital shows that polluting medium enterprises are able to continue their business and they have sufficient long-term fund to cover long-term assets and the part of their inventories.

Starting from the fundamental financial stability determinants analyzed in the paper, it is important to emphasize the significance of improving the factors affecting the company's liquidity. Strengthening the ability to service matured liabilities, including pollution and environmental protection ones, implies adequate coverage of assets by adequate financing sources and timely compliance of inflows and outflows.

Investments in preventive activities and eco-technologies are the basis for improving ecological business that require the strengthening of the ability to

generate cash flows from operating activities, attracting additional own capital and obtaining conditions for the borrowing under more favourable conditions.

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