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Solvency Evaluation, Comparing Traditional Financial Situation Assessment Methods with Information from Cash Flow Statements, Using Data from Insolvent Companies in the Republic of Latvia

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Abstract:

Insolvent companies negatively effect on the country's overall social and economic development. In Republic of Latvia between 2011 and 2016, each year an average of 870 companies was being proposed with insolvency. In order to minimize or avoid the company's insolvency it is important to timely evaluate company's business activities and to take appropriate decisions. Company performance analysis can be made with traditional financial analysis ratios, which are calculated by using the balance sheet and profit and loss statement data, but, based on the views of theorists and authors previous study results, it is also important to use the cash flow statement data analysis.

In the research were used fifty freely chosen, in the Republic of Latvia registered companies whose insolvency procedure started in the period from November 1, 2014 to December 31, 2016, and which operate in one of the four following sectors: trade sector, transportation, sector of services or production.

In order to rapidly assess the company's ability to pay, thereby avoiding the possibility for the company to fall into the insolvent company's status, the authors put forward the objective of the study: explore, compare and assess the solvency indicators, which are calculated using the traditional methods of financial analysis and cash flow statement, developing proposals for solvency prediction.

To achieve this goal there were used economic analysis and synthesis method - studying the theoretical aspects and corporate reports, statistical methods - data processing and analysis, as well as the logical constructive methods of interpreting the results of the study, setting conclusions and recommendations. In the research, there were defined conclusions and formulated proposals for company's business analysis in order to timely detect and avoid the corporate insolvency. The most important of them are included in the conclusion part.

The article has a theoretical and practical meaning in solvency forecasting through traditional financial situation evaluation ratios and cash flow statements.

Keywords: *cash flow statement, cash flow ratios, financial analysis, insolvency prediction*

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1. Introduction

Companies added value is the basis for not only the company's development, but also for of the country's overall development. Therefore, any economic entity is interested in, to the company which operates in the long-term run, because if it develops there can be designed not only higher level of profit, but also new jobs and that can brought up national prosperity. However, long-term development is not possible without systematic monitoring of company and its ability to efficiently use all resources. Working with financial information and analyzing it is necessary to explore many details and elements that could have a significant impact on the financial position and stability.

According to the authors opinion, it is necessary to examine both the income statement results and cash flow statement. Both of these statements comparison can provide important information. It also stresses Loukopoulos and Roupas (2014) in their work "Financial Analysis of the Greek Private Health Sector Over the Last Decade (2002-2012)." The comparison between earnings and operating cash flows, informs us about the amount of the accrued profits and hence on the quality of accounting information. Generally the difference between these figures and their volatility is not desirable." Ever since the early 20th century, when its origins lie in the financial analysis, that time and contemporary authors argue about traditional financial situation assessment methods, however, according to the authors, for objectivity also it is necessary to use the information provided by cash flow statement. In order to achieve the goal of the study (to explore, to compare and assess the solvency indicators, calculated using the traditional methods of financial analysis and cash flow statement, and as a result develop proposals for solvency prediction), the authors put forward the main tasks:

1. to compare the cash flow statement of the information provided by traditional financial analysis methods and their information;
2. to perform fifty insolvent company's financial position representing by four different industries cash flow ratio analysis and traditional financial analysis factor assessment;
3. to make fifty insolvent company's representing by four different industries financial position, cash flow ratio analysis and traditional financial analysis ratio's assessment;
4. to compare the cash flow ratio results with traditional financial analysis ratio results;
5. to make conclusions on the cash flow statement importance in the company's solvency evaluation;
6. to make proposals in order to improve the company's solvency assessment, using the cash flow statement information.

For the research object, were determined fifty freely selected companies that at first were grouped according to the following criterio. Companies that are registered in

Republic of Latvia, which in the period from November 2014 to December 2016 started insolvency procedure and which following the Article 54 of the "Annual Account Law" requirements, had prepared a cash flow statement for at least five years prior the insolvency proceedings initiating, and which operate in one of the four following industries: trade, transport, service or production. Analysis of 50 selected companies in four different industries, were selected out of 110 companies that met the authors set requirements for selection criteria and for which an insolvency procedure was started in the period from November 2014 to December 2016.

In order to provide the widest possible and accurate summary of financial ratios calculation results, authors used different mean values to display absolute values and ratios results, however, all were based on the mean values in order to more visible and more accurately show the results. Overall, to the data analysis authors used the following mean values techniques: arithmetic mean, median, arithmetic mean which calculation is based on the values of which excluded "outliers" values, arithmetic mean which calculated with Excel formula TRIMMEAN and which is based on the arithmetic mean, but from which, at first, were excluded common data series with its upper and lower values in excess of 2%.

2. Research results and discussion

2.1 Financial analysis ratios used in solvency assesment

The need for measurable methods to make credit and investment decisions was the main reason for the initial financial ratio development. Financial ratio analysis origins found in the early 1900s by the ratio: current assets to current liabilities (Patterson, 2001). Before the Financial Accounting Standards Board issued Financial Accounting Standards No. 95 "Statement of Cash Flows" in 1987, specific information about the actual cash flows as whole was not available. Studies before 1987, in ratios, which were necessary cash-flow measurements, usually were used a combination of indicators: net profit plus depreciation, but with that was missed information on the funds arising from financing and investing activities (Patterson, 2001; Thalassinos *et al.,* 2015). The authors notes that the main reason for the cash flow ratio development, was the fact that the studies were based only on the ratios which are based on accrual basis. In that time researchers realized that the precise ratio interpretation required ratios with cash flow statement information.

In order to compare traditional financial analysis ratios with ratios based on cash flow statement, the authors in choice of the traditional financial ratios were based on different in literature sources founded, the most popular bankruptcy forecasting models reflected in the other researchers set financial ratios, with which, in their view, in different combinations can be predicted impending insolvency. The authors analyzed a total of nine different literature sources, which was reflected in the

comparison of solvency and forecasting models found in the financial analysis ratios, which were researched and discovered by thirteen different authors.

Most of the six most common traditional financial analysis ratios among all of authors viewed literature sources (Subramanyam, 2014; Elliott and Elliott, 2006; Patterson, 2001; Bukovinsky, 1993; Šneidere, 2009; Imanzadeh *et al.,* 2011; Husein and Pambekti, 2014; Sembiring, 2015; Huo, 2006; Denisova *et al.*, 2017; Liapis *et al.,* 2013; Lado Gonzalez and Calvo Dopico, 2017; Boldeanu and Tache 2016; Theriou, 2015) were various ratios which common feature was that they were confronted with total assets (a total of five of the six most common factors), but one were opposed to current liabilities. The authors' five selected financial ratios were selected to assess the solvency level, therefore, studied financial ratios, and mainly were related to the solvency and liquidity assessment.

According to authors, important insolvency forecasting indicator is an assets efficiency level as evidenced by the Loukopoulos G., Roupas T. in their research „Asset turnover is the second key factor that determines the performance of equity." (Loukopoulos and Roupas, 2014) so the authors chose to look at the ratio Net turnover/ Total assets. Solvency evaluation is often associated with capital structure analysis, however about the amount of debt on the balance sheet have different opinions „Modigliani and Miller (1958) are the first that have tentatively studied the impact of capital structure. In their studies they demonstrate that the value of a firm is independent of its capital structure and consequently there is no correlation between leverage and firm's value in a world without tax and transactions costs." (El-Chaarani, 2014), thereby the authors chose to look at the financial analysis ratios that associated with the capital structure evaluation. The authors generally chose to study three ratios that were related to the assessment of solvency, a ratio associated with liquidity and a turnover ratio, which are reflected in Table 1.

This study used five on the cash flow statement based ratios selected to assess the company's ability to pay as accurately as possible, which based on the most important of the previous study, of the cash flow statement analysis useful ratios, results in which were compared and eliminate liquidated and operating companies cash flow ratio results. In this study it was distributed to the main cash flow ratios, which showed the biggest difference between the liquidated and operating companies (Šteinberga and Millere, 2016). The authors chose a total of ten financial ratios with which to analyze the insolvency probability in the future. Five of them were traditional financial analysis ratios which according to the authors' opinion were the most important ratios for the assessment of the insolvency and five ratios that the most significant differences showed in the previous research, and were based on the cash flow statement. In the following study, the authors will use, according to authors, main ratios in the analysis which summarized in Table 1, showing separately the traditional and on the cash flow statement based ratios.

Table 1. *Ratios selected by authors that were used for solvency evaluation**

No	Ratios based on cash flow statement	Traditional financial analysis ratios
1	$\frac{Cash\ flow\ from\ operations}{Current\ liabilities}$	$\frac{Current\ assets}{Current\ liabilities}$
2	$\frac{Cash\ flow\ from\ operations}{Total\ liabilities}$	$\frac{Total\ liabilities}{Total\ assets}$
3	$\frac{(Cash\ flow\ from\ operations + interest\ paid + taxes\ paid)}{Interest\ paid}$	$\frac{Profit\ before\ interest\ expenses\ and\ taxes}{Interest\ expenses}$
4	$\frac{Cash\ flow\ from\ operations}{\lvert Cash\ flow\ from\ investing\ activities\rvert}$	$\frac{Net\ turnover}{Total\ assets}$
5	$\frac{Cash\ flow\ from\ financing\ activities}{Total\ liabilities}$	$\frac{Profit\ before\ taxes}{Current\ liabilities}$

**** Source:*** *authors created table, based on Šteinberga and Millere, 2016; Elliot and Elliott, 2006; Patterson, 2001; Huo, 2006; Sembiring, 2015)*

Based on the authors selected and the above mentioned a total of ten different ratios, which are based on cash flow and balance sheet and profit and loss account data, will be analyzed fifty different companies whose has insolvency procedure initiated, in order to assess the cash flow statement importance in solvency assessment, and compare the results obtained with traditional financial situation assessment methods results.

2.2 Insolvent companies financial statement analysis in service, production, trade and transport industries

Fifty companies which insolvency proceedings were initiated during the period from November 2014 to December 2016 for the analysis were selected using the following criteria: publicly available information about the company's operations and on the above mentioned period were initiated insolvency proceedings, publicly available annual statements, which contain cash flow statement for at least five year before initiation of insolvency proceedings, companies operating in one of the following sectors: service, production, transport or trade sectors. Of 110 to the selection valid companies, first were selected those companies whose financial statements contained the financial information necessary for the ratios estimates. From the list of beneficial companies, were randomly selected fifty companies, which can be seen in Table 2, according to their industry affiliation.

Table 2. *List of insolvent companies selected for analysis with representing sectors**

No	List of companies selected for analysis			
	Service industry	**Production industry**	**Trade industry**	**Transport industry**

1	“Avex” LTD	“Daugavpils dzirnavnieks” JSC	“Monald-metāls” LTD	“Kort” LTD
2	“Lamula” LTD	“Jelgawood” LTD	“Aluminum Eko” LTD	“Fatina Trans” LTD
3	“Albatross un partneri” LTD	“Kurzemes finieris” LTD	“Hansa Interiors Latvia” LTD	“Parnas SA” LTD
4	“EL Plūsma” LTD	“Serho 777” LTD	“Pārtikas kompānija” LTD	“Līksna V” LTD
5	“Kuldīgas metropole” LTD	“Ota un partneri” LTD	“Lari A” LTD	“Laki trans” LTD
6	“Evor” LTD	“Microdot” LTD	“KMM Processing” LTD	“N Logistiks” LTD
7	“Ūdensnesējs” LTD	“Paletten Service” LTD	“Virose” LTD	“TVA” LTD
8	“Avantime” LTD	“Reneprint” LTD	“Daibi” LTD	
9	“Mehāniskās sistēmas” LTD	“ADN Castings LTD” LTD	“Inpap” LTD	
10	“Ormus” LTD	“Aplast” LTD	“BGF” LTD	
11	“Ler Baltic group” LTD	“Ardeks” LTD	“Intep invest” LTD	
12	“Vegalats apsaimniekošana” LTD	“Attirance” LTD	“Tranzīta terminmāls” LTD	
13	“Tschudi logistics” LTD	“Saiva Anno 1949” LTD		
14		“Var C” LTD		
15		“Mežmaļi M” LTD		
16		“N.O.M. Coatings” LTD		
17		“Global steel Service” LTD		
18		“Rišon Inter” LTD		

**** Source:*** *authors created table*

The author carried out a financial ratio calculations and analyzed them, comparing different ratios and the application of statistical methods, in order to assess the ability to predict the impending insolvency of using these ratios. In order to analyze companies and ratios, were used various of calculation methods, however, are all were based on the average calculation. Beaver, in his study which were published in 1966, to display data also used averages. “Beaver divided ratio components and calculated the average values of the bankrupt companies and operating companies.

The analysis of average value of these components revealed a significant difference between the bankrupt and operating companies in various fields" (Bukovinsky, 1993).

Overall, to the data analysis authors used the following mean values techniques: arithmetic mean, median, arithmetic mean which calculation is based on the values of which excluded "outliers" values, arithmetic mean which calculated with Excel formula TRIMMEAN and which is based on the arithmetic mean, but from which, at first, were excluded common data series with its upper and lower values in excess of 2%. Calculating the arithmetic mean of which first excluded "outliers" values, the authors, considers that it is possible to show the arithmetic mean of the values, that in comparison with the rest of the data set values, are the ones who in most cases characterises a results of ratios. With "outliers" the authors characterizes values that are unusually high or low relative to other values in a dataset.

When calculating financial ratios authors took into account the entity's financial indicator existence, which should be used to calculate the specific ratio. In cases where a specific financial ratio for the calculation were not available data from the financial statements, it was excluded from the total number of the calculated ratio and the number of analyzed ratios was reduced.

The authors note that a separate calculation method was applied to ratio "Cash flow from operations/ Cash flow from investing activities". In Subatnieks study "Komercsabiedrību naudas plūsma" were pointed that "in the denominator is used net investing cash flow, which actually shows the capital investments made by company during the reporting year. It should be noted that the internal financing potential is calculated and interpreted only, if net cash flow of investing activities is negative, because capital by their nature is cash expense" (Subatnieks, 2008). Based on the literature source, the authors, calculating the financial results of the ratio was not taken into account those periods when investing cash flow has been positive, in order to more accurately show the capital expenditures made by company and their impact on the company's solvency. In order to compare the results, provided by calculation of this ratio, which calculated taking into account the positive results of investment net cash flow, the authors didn't see significant change in trends of th average results. If any differences were observed, they were observed in only one period, varying a specific number of years prior to the initiation of insolvency proceedings, when ratio tends to decrease.

Based on the results of the study in text below, the authors demonstrated the most significant discoveries of each sector. In Table 3 authors showed a number of years prior to the insolvency proceedings and certain worsening trends of financial activities, when specific ratios pointed to the impending insolvency, according to the majority of the average calculation method. The authors concluded that - the earlier ratio indicate the impending insolvency problems, the earlier possible to respond to the deteriorating financial situation to deal with them.

Table 3. *According to research, determined number of years before the insolvency proceedings in service, production, trade and transport industries when financial ratios shows the financial performance degradation trends**

Ratio	Number of years, which assessed the solvency			
	Service industry	Production industry	Trade industry	Transport industry
Current assets / Current liabilites	**3**	4	2	**4**
Total liabilites / Total assets	5	3	2	5
Profit before interest expenses and taxes / Interest expenses	4	5	**2**	2
Net turnover / Total assets	-	-	-	-
Profit before taxes / Current liabilites	**4**	3	3	2
Cash flow from operations/ Current liabilites	**2**	3	3	**4**
Cash flow from operations/ Total liabilites	**2**	3	3	2
Cash flow from operations + interest paid + taxes paid/ Interest paid	**2**	2	-	2
Cash flow from operations / |Cash flow from investing activities |	3	-	-	-
Cash flow from financing activities / Total liabilites	**2**	-	2	-

Source: *authors created table*

To ratios that are not relevant for the assessment of solvency in any of the industries the authors didn't state a certain number of years in table. For example, the ratio of "Net turnover/Total assets" which ratio in any of the industries didn't showed the ability to predict insolvency proceedings initiation in the future. In bold colored the number of years, when in specific industry all average calculation methods showed the same trends in the insolvency prediction.

The authors conclude that in service industry of all analyzed the average detection techniques to the trend gradually approaching the insolvency proceedings in most cases the results show from the second year before the initiation of insolvency proceedings, comparing all ten analyzed financial ratios. Among the companies in service industry, according to authors opinion, above all, should be used ratios that point to the earliest period when it was shown tendencies to approach the insolvency proceedings –„Total liabilites / Total assets", „Profit before interest expenses and taxes / Interest expenses", „Profit before taxes / Current liabilites". According to authors, important ratios is those which showed tendencies approaching insolvency by all average calculation methods, for example „Current assets / Current liabilites" case. Most of the ratios based on the cash flow statement for the service industry, to

the trends gradually financial situation grow worse, points from the second year before the initiation of insolvency proceedings. Such trends cash flow ratios showed only in service industry, which the authors explains with the high working capital movement of companies in this industry. Only ratio "Cash flow from operations / |Cash flow from investing activities|" pointed that after three of average calculation methods this ratio indicates the approaching insolvency in the third year before the actual process of initiation. Consequently, in the services industry in anticipation of solvency, according to the authors, should take into account all five on the cash flow statement based financial ratios.

The authors conclude that in service industry financial statements can be analyzed, using both traditional financial analysis ratios and ratios based on the cash flow statement. Among production industry companies the majority of the average calculation methods insolvency approaching more showed ratios, which forecasts for insolvency proceedings initiation showed from the third year before the actual insolvency proceedings initiation. Production industry ratio results did not show such a large number of the ratios, that at the same time can predict the impending insolvency, as service sector companies. The largest number of average calculation methods at the same time pointed to the impending insolvency only in "Current assets/Current liabilites" case. Production industry companies in insolvency prediction, according to the authors, above all should use ratios "Profit before interest expenses and taxes / Interest expenses" and "Current assets / Current liabilites", because they first was ale to point to an approaching insolvency.

Comparing "Current assets / Current liabilites" results in production and service industries, it can be concluded that ratio shows similar trends in both industries. In both industries the ratio the lowest and the sharpest reduction shows in the last year before the onset of insolvency proceedings and this ratio decreases from the third year prior to the initiation of insolvency proceedings. Comparing traditional and on cash flow statement based ratios results of companies in production service, the authors conclude, that stronger forecasts of insolvency oncoming eventuality showed traditional financial analysis ratios. Two of the ratios, which are based on cash flow ("Cash flow from operations/ Current liabilites" and " Cash flow from operations/ Total liabilites"), according to authors, is significant for insolvency prediction, however, the results show a less expressed trends as ratios "Current assets / Current liabilites" and "Total liabilites / Total assets". Just as in service industry companies also in trade industry in most cases, the average calculation methods for insolvency oncoming trends showed from the second year before the actual initiation. Trade industry companies, according to the authors, should be using ratios which results trends to approaching insolvency process indicates at least three years prior to its actual occurrence – "Profit before taxes / Current liabilites", "Cash flow from operations/ Current liabilites", "Cash flow from operations/ Total liabilites". "Profit before interest expenses and taxes / Interest expenses" and, according to authors, to these ratio results should pay attention at least two periods in length. The authors notes that in the trade industry company case, a ratio which based on cash flow

statement, is important, because from total proposed ratios two are used on the cash flow statement data and comparing the traditional and on the cash flow statement based ratios, it can be seen that the role of insolvency forecasting is similar.

Among companies that works in transportation industry ratios results tendencies to approach the insolvency proceedings, in most cases indicated in the fourth year before the initiation of insolvency proceedings, for example, ratios as "Current assets / Current liabilites" and "Cash flow from operations/ Current liabilites", because they earliest showed the ability to predict the approaching insolvency proceedings. Also in the second year before the initiation of insolvency proceedings there were several ratios, whose the results pointed to the insolvency proceedings approach, for example, ratios as "Profit before interest expenses and taxes/ Interest expenses", "Profit before taxes/ Current liabilites", "Cash flow from operations/ Total liabilites", "Profit before interest expenses and taxes / Interest expenses". Significant results, according to the authors, showed the ratio "Total liabilites/ Total assets", the results of which should be assessed for several years.

Comparing traditional financial ratio analysis results by a ratio which calculation is based on the cash flow statement, the authors conclude that, in transport industry to insolvency proceedings showed both traditional financial analysis ratios and cash flow statement ratios, thus showing the importance of the insolvency assessment.
The differences between the different ratios in industries the authors explain with the specific characteristics of each industry of the business and net turnover modeling point of view. In Table 4, using the data in Table 3, the authors showed each industry three main ratios that, in authors opinion, should be taken into account in insolvency prediction.

Table 4. *Ranked most important financial analysis ratios for assessing the solvency companies in the service, production, trade and transport sectors**

Ratio	Rank (1-most important ratio; 2- the second most important ratio; 3-the third most important ratio)			
	Service industry	Production industry	Trade industry	Transport industry
Profit before interest expenses and taxes / Interest expenses	3	1	-	-
Profit before taxes / Current liabilites	2	-	1	-
Total liabilites / Total assets	1	3	-	3
Current assets / Current liabilites	-	2	-	1/2
Cash flow from operations/ Current liabilites	-	-	3	1/2
Cash flow from operations/ Total liabilites	-	-	2	-

Source:* *authors created table*

Table 4 shows ratios were displayed with a ranking help, where "1" – represents the most significant financial analysis ratio, "2" – the second most important, but "3" - represents the third most important financial ratio in solvency assessment analysis. Ranks to certain ratios were given firstly, after how early these ratios point to an insolvency problem increase and, secondly, after how much of the average calculation methods points to that. In service industry companies, authors points to the ratio "Total liabilites/ Total assets" importance of assessing solvency, because ratio the earliest and after a series of average calculation methods referred to the ability to predict the approaching insolvency problems. In production industry the most important ratio, according to the authors, "Profit before interest expenses and taxes/ Interest expenses", but in trade industry "Profit before taxes/ Current liabilites". In transport industry, according to the authors, it is difficult to distinguish the most significant ratio, because two ratios, after criteria set by the authors for determining significance, shows similar signs, for exmple ratios as "Current assets/ Current liabilites" and " Cash flow from operations/ Current liabilites". Thereby the results of these two ratios in the transport industry by the assessing the solvency level of the company should take particular account.

3. Conclusions, proposals, recommendations

In accordance with the goals of this paper, the authors investigated the indicators and ratios for the solvency assessment, analysed the data of 13 insolvent enterprises of the Republic of Latvia in service industry, 18 insolvent enterprises of the Republic of Latvia in production industry, 12 insolvent enterprises of the Republic of Latvia in trade industry and 7 insolvent enterprises of the Republic of Latvia in transport industry and, by comparing the calculated ratios, have come to these conclusions:

1. Three main financial analysis ratios in service industry were - "Total liabilities/ Total Assets" (the most important ratio and which from the fifth year before the insolvency proceedings, pointed to the insolvency problems), "Profit before tax/ Current liabilities" (the second most usable ratio in solvency evaluation) and "Profit before interest and taxes / Interest expenses" (the third most important ratio in solvency evaluation);
2. In service industry two years before the insolvency proceedings showed all in the study analyzed ratios that were based on cash flow statement data;
3. Three main financial analysis ratios in production industry for insolvency prediciton were - "Profit before interest expenses and taxes / Interest expenses", „Current assets / Current liabilites" and " Total liabilites / Total assets". In production industry for insolvency prediction it is possible to use ratios that were based also on cash flow statement „Cash flow from operations/ Current liabilites" and " Cash flow from operations/ Total liabilites", which results showed significant tendencies already three years before the insolvency proceedings;

4. Among three main financial analysis ratios in trade industry for insolvency prediciton were – „Profit before taxes/ Current liabilites", that as the most important ratio in the three years prior to the initiation of insolvency proceedings referred to the insolvency problems, „Cash flow from operations/ Total liabilites" and "Cash flow from operations/ Current liabilites";
5. Among three main financial analysis ratios in transport industry for insolvency prediciton were - " Current assets/ Current liabilites" and „Cash flow from operations/ Current liabilites" as the most important ratios, which results already four years prior to the initiation of insolvency proceedings referred to the insolvency problems after all the average calculation methods and „Total liabilites/ Total assets" as the third most important ratio for solvency evaluation;
6. Comparing the four analyzed industries, the earliest insolvency predict ratio "Total liabilites/ Total assets", because in service and transport industries this ratio showed to insolvency proceedings initiation already from fifth year, in production industry from third year, but in trade industry from second year before insolvency proceedings;
7. Comparing all industries, the ratio that the worst predicted to insolvency was "Net turnover/ Total assets", because none of the industries contribution of this ratio in insolvency forecasting was not observed;
8. Using fifty insolvent companies in Republic of Latvia data, which calculated in four industries, in can be concluded, that more important insolvency signs points traditional financial analysis ratios, while ratios based on cash flow statement its role in the insolvency evaluation shows only in the trade and transport company analysis.

By assessing the results of the study the authors believe that it has both theoretical and practical value. Depending on the industry, both traditional and on cash flow statement based ratio calculations is necessary to use and should be assessed together. In order to assess possible insolvency problems in future, the authors recommends to use ratios that were pointed out in conclusions. The authors also believe that studies in insolvency evaluation with traditional and on cash flow based ratios should be continued, analysing a larger amount of insolvent company's data.

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