#### UDC 336.6 Anton Grechenyuk PhD (Economics), Head of the Department of Scientific and International Activity Organization, Kursk Academy of State and Municipal Service, Kursk, Russia 9, Stantsionnaya Str., Kursk, 305044, Russia grant25@yandex.ru

Olga Grechenyuk PhD (Economics), Associate Professor, Regional Economics and Management Department, Southwest State University, Kursk, Russia 94, 50 Let Oktyabrya Str., Kursk, 305040, Russia og1016s@yandex.ru

# The structure of assets and capital of the Russian companies and their impact on the liquidity and financial stability

**Abstract.** The article is devoted to the analysis of modern level of liquidity and financial stability of the Russian public and nonpublic companies, taking into account changes in the composition and structure of assets and capital. This research was done on data of annual financial statements of 250 public and 750 non-public joint stock companies for 2010-2013. The analysis allowed concluding that changes in the balance sheet taking place in the recent years change the usual perception of the required level of liquidity and financial stability of the Russian companies and, accordingly, the current theoretical and practical methods of analysis of these areas of a company's financial condition need updating.

Analysis of the current level of liquidity and financial stability, determined by the composition and structure of assets and capital of the Russian companies, as well as revealing their tendencies and characteristics in the context of public and non-public companies were realized. For the processing and analysis of the generated database, MS EXCEL tools were widely applied.

At the public joint stock companies as compared to the non-public companies, the average share of short-term liabilities is lower (33.1% and 49.9%, respectively), and the amount of average ratios of cash and short-term investments is approximately equal (about 11%), as a result, the absolute values of Cash Ratio and Quick Ratio are much better. At the same time, non-public joint stock companies have higher values of the average shares of current assets (57.6% and 43.5%, respectively) and inventories (20.0% and 8.2%, respectively). It was substantiated that the level of liquidity and financial stability of the Russian public companies is different from the non-public ones due to the characteristics of the composition and structure of assets and capital. **Keywords:** Assets; Capital; Liquidity; Financial Stability; Joint Stock Companies

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## Греченюк А. В.

кандидат економічних наук, начальник відділу організації наукової та міжнародної діяльності, Курська академія державної та муніципальної служби, Курськ, Російська Федерація

## Греченюк О. М.

кандидат економічних наук, доцент кафедри регіональної економіки й менеджменту,

Південно-Західний державний університет, Курськ, Російська Федерація

Структура активів і капіталу російських компаній і їх вплив на ліквідність і фінансову стабільність

Анотація. Стаття присвячена аналізу сучасного рівня ліквідності й фінансової стабільності російських публічних і непублічних компаній з урахуванням змін у складі та структурі активів і капіталу. Дослідження виконане на матеріалах річних бухгалтерських звітностей 250 публічних і 750 непублічних акціонерних товариств за 2010-2013 роки. Проведений аналіз дозволив зробити висновок про те, що зміни, які відбуваються в останні роки в бухгалтерському балансі, змінюють звичне уявлення про необхідний рівень ліквідності й фінансової стабільності російських компаній. Ключові слова: активи; капітал; ліквідність; фінансова стабільність; акціонерні товариства.

## Греченюк А. В.

кандидат экономических наук, начальник отдела по организации научной и международной деятельности,

Курская академия государственной и муниципальной службы, Курск, Россия

## Греченюк О. Н.

кандидат экономических наук, доцент кафедры региональной экономики и менеджмента,

Юго-Западный государственный университет, Курск, Россия

Структура активов и капитала российских компаний и их влияние на ликвидность и финансовую устойчивость Аннотация. Статья посвящена анализу современного уровня ликвидности и финансовой устойчивости российских публичных и непубличных компаний с учетом изменений в составе и структуре активов и капитала. Исследование выполнено на материалах годовых бухгалтерских отчетностей 250 публичных и 750 непубличных акционерных обществ за 2010-2013 годы. Проведенный анализ позволил сделать вывод о том, что происходящие в последние годы изменения в бухгалтерском балансе изменяют и привычное представление о необходимом уровне ликвидности и финансовой устойчивости российских компаний.

Ключевые слова: активы; капитал; ликвидность; финансовая устойчивость; акционерные общества.

**1. Introduction.** Liquidity and financial stability of a company are determined by composition and structure of its assets and funding sources. In the previous studies we found that the composition and structure of assets and financial resources of different companies can vary significantly, and industry affiliation in this case is not a determining factor, as policy of company, its efficiency, risk tolerance, general economic situation, etc. also have a significant impact (Grechenyuk, Vertakova, Grechenyuk (2015) [1]; Grechenyuk, Grechenyuk (2015) [2]).

The Russian public companies actively develop new activities, including those not related to the main profile of the company (create subsidiaries and joint ventures, invest surplus funds in securities of other companies, etc.), which leads to an increase in absolute values and shares of long-term and short-term financial investments, allows optimizing the value of fixed assets and inventories. These changes in assets of the Russian public companies lead to changes in the structure of capital: there is a growth of shares of borrowed funding sources (Vertakova, Plotnikov (2013) [3]; Grechenyuk, Grechenyuk (2015) [4].

2. Formulation of the problem. In this connection, there are two research issues: to define the actual level of liquidity and financial stability of the Russian public companies, taking into account recent changes in assets and sources of funding; to update the methodology of liquidity and financial stability analysis.

3. Literature Review. There are quite significant differences in the Russian and foreign approaches to analysis of liqui-

dity and financial stability of a company. There is also no consensus on the methodology among the Russian scientists, which is manifested in the difference in the set of indicators, their calculation methods, normative values, visual presentation, use of mathematical tools, etc.

The comparative analysis of the Russian and foreign approaches to evaluation of liquidity and financial stability are described in our previous article (Grechenyuk, Grechenyuk, 2015) [5], but the most significant differences are:

In the foreign literature, in particular in the works of Brealey Richard A., Myers Stewart C. (2003) [6], Erich A. Helfert (2001) [7], Martin S. Fridson and Fernando Alvarez (2011) [8], Samuel C. Weaver (2012) [9], allocated a smaller amount of indicators of liquidity and financial stability, their composition and method of calculation are stable enough. Also, all indicators of liquidity and financial stability are relative, i.e. completely absent techniques, containing absolute indicators.

In the foreign approaches to the analysis of liquidity and financial stability the normative values of indicators are usually absent. Contrary, in the works of the Russian authors they are presented for each relative indicator, and there are significant differences in their values depending on the author (Fomina, Honcharenko (2015) [10]; Kostenko (2013) [11]; Efimova O. V. (2014) [12]; Kondratyeva E. A., Shalneva M. S., 2013 [13]; Krylov S. I. (2013) [14]; Orlovskiy V. Yu. (2014) [15]; Solovyova H. A., and Dyagel O. Yu. (2013) [16]; Fedotova M. Yu. and Novichkova O. V. (2015) [17]).

4. The purpose of the article is to determine the real level of liquidity and financial stability of the Russian public companies as well as actualize the theoretical aspects of the analysis.

For making our research, we have created a database using annual financial statements of 1000 Russian joint stock companies. The database includes 250 joint stock companies from listing of MICEX-RTS (public companies) and 750 ordinary joint stock companies that do not have their securities at the stock exchange (non-public companies). The period of research is 4 years - from 2010 till 2013.

**5. Results.** We will present the main results of the analysis of liquidity and financial stability of the Russian public companies, which were included in the database.

In Figure 1, we display the percentage of public and nonpublic joint stock companies where liquidity ratios comply with the normative values. The data in Figure 1 show that Cash Ratio and Quick Ratio comply with the normative values at a higher percentage of public joint stock companies. It indicates that public companies compared non-public companies have a higher level of short-term liquidity.

At the same time, at a higher percentage of non-public joint stock companies Current Ratio complies with the normative value. This indicates that non-public joint stock companies have a higher level of perspective liquidity. Also, it should be noted that in the past two years among public joint stock companies greatly increased a percentage of companies with the value of Current Ratio less than one.

In general, the differences between indicators of liquidity at public and non-public joint stock companies caused by significant differences in the structure of assets and capital.

At public joint stock companies as compared to non-public companies, the average share of short-term liabilities is lower (33.1% and 49.9%, respectively), and the amount of average ratios of cash and short-term investments is approximately equal (about 11%), as a result, the absolute values of Cash Ratio and Quick Ratio are much better. At the same time, nonpublic joint stock companies have higher values of the average shares of current assets (57.6% and 43.5%, respectively) and inventories (20.0% and 8.2%, respectively). This affects the higher values of Current Ratio.



Fig. 1: The shares of public and non-public joint stock companies where liquidity ratios comply with the normative values, % Source: Authors' own research

In Figure 2, we present the percentage of public and nonpublic joint stock companies where leverage ratios comply with the normative values.

The analysis of first three indicators of financial stability showed that during the study period, there is a reduction of the relative value of shareholders' equity and accordingly an increase the share of debt capital. This is evidenced by the negative dynamics of Shareholders' Equity to Assets Ratio and Debt to Shareholders' Equity Ratio.

In this case, the value of Capitalization to Assets Ratio does not have a strong reduction, it means that the lack of shareholders' equity the companies cover by debt and mostly by long-term liabilities. These tendencies are characteristic equally for public and non-public joint stock companies.

If we compare the levels of financial sustainability of public and non-public joint stock companies, we can see that non-public joint stock companies have a slightly higher percentage of companies in which Shareholders' Equity to Assets Ratio and Debt to Shareholders' Equity Ratio comply with the normative values.

Among non-public joint stock companies was observed a higher proportion of companies with negative shareholders' equity and with a very high proportion of shareholders' equity (over 75%). However, Capitalization to Assets Ratio complies with the normative value at a higher share of public companies. On this basis, we think that public joint stock companies have a higher level of financial stability (taking into account the first three indicators) due to more efficient structure of capital.

The analysis of three remaining indicators of financial stability showed a significantly higher level of financial stability at non-public joint-stock company as compared to public companies. Moreover, at public joint stock companies there is a quite significant reduction in the level of financial stability for these indicators. The cause for that is the growth of share of public companies with a negative value of net working capital. This situation is caused by reduction of the share of shareholders' equity while increasing the share of noncurrent assets. The average share of shareholders' equity at public joint stock companies during the study period decreased from 49.5% to 44.6%, and the average share of noncurrent assets increased from 54.3% to 56.5%.



where leverage ratios comply with the normative values, % Source: Authors' own research

Some reduction in the level of financial stability (taking into account indicators of the second group) also observed at nonpublic joint stock companies, but this trend is not pronounced. At these companies there is also a reduction of the average share of shareholders' equity from 43.6% in 2010 to 34.8% in 2013. But the average share of noncurrent assets declined slightly from 43.0% to 42.4%.

6. Conclusions. According to results of the analysis of liquidity and financial stability, we can conclude that current Russian methodology of analysis, including the set of indicators, the calculation methods and the normative values, require updating in modern conditions. For example, a smaller percentage of public joint stock companies have the value of Current Ratio more than normative value (more than 2). However, with modern, efficient methods of production management and the company as a whole there is no need the double excess of current assets over current liabilities. In addition, this situation caused not higher values of short-term liabilities at public joint stock companies (at non-public joint stock companies the value and the share of short-term liabilities significantly higher), but vice versa lower values and shares of current assets and inventories in particular. Therefore, this indicator does not allow properly assess the level of liquidity, etc.

During the analysis, we found that cash ratio can vary greatly within one company by years. That is caused by the instability of the amounts of cash and short-term investments. Thus, this indicator does not give stable results of assessing of liquidity and accordingly it has not practical significance for the analysis.

Also, in your opinion, the second group of relative indicators of financial stability includes ratios duplicating each other (Net Working Capital to Current Assets Ratio and Net Working Capital to Shareholders' Equity Ratio). At the same time, Net Working Capital to Inventories Ratio is outdated and became irrelevant in the conditions of application modern approaches in the management of inventories and new forms of financing economic activity.

We should also mention the negative points in relation to normative values of liquidity ratios and leverage ratios. Firstly, these normative values had not been revised for more than 20 years. Secondly, ratios by different authors are somewhat

different, which complicates the interpretation of the analysis results. Third, in the foreign textbooks the normative values of liguidity ratios and leverage ratios are absent at all. This situation raises doubts about the effectiveness and relevance of existing normative values of liquidity ratios and leverage ratios.

Also, it should be noted that the modern features of the structure of assets and capital detected by us in the analysis and their effect on liquidity and financial stability of the Russian joint stock companies remained in 2014-2015, and will remain, in our opinion, in the coming years. This once again confirms the conclusion of the need to bring the methodology of the analysis of liquidity and financial stability into line with modern conditions of functioning of the Russian public companies.

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