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ANALYSIS AND ASSESSMENT OF THE FINANCIAL POSITION OF COMPANIES LISTED ON THE WARSAW STOCK EXCHANGE IN 2014-2023 USING CASH FLOW PATTERNS

Tomasz MAŚLANKA

UEK Cracow, Department of Corporate Finance; maslankt@uek.krakow.pl, ORCID: 0000-0001-7005-8417

Purpose: The purpose of this article is to analyse the financial position of business entities using Cash Flow patterns.
Design/methodology/approach: the theoretical considerations presented in this publication are based on a critical analysis of the literature on the subject. The empirical part presents an analysis based on the financial data derived from individual financial statements of non-financial entities listed on the Warsaw Stock Exchange in the period 2014-2023. A total of 2945 observations on 366 listed entities were analysed.
Findings: among the observations to be noted is the fact that positive cash flows from core activities dominate among the business entities considered. The most common pattern, that was identified, was variant 2 (+, -, -), describing business entities that remain in a good financial position. Among the variants characterized by negative cash flows from operating activities, pattern number 6 (-, -, +) was most often identified, characteristic of entities remaining in the process of restructuring or entities going public.
Originality/value: The following publication is a continuation of the author's previous research in the area covered. Only by analysing the company's situation through the prism of its balance sheet, profit and loss account and cash flow statement a comprehensive picture of the financial situation of the economic entity can be obtained.
Keywords: cash flow statement, variants of balances from different activities in cash flow statement, analysis of financial position of an entity.
Category of the paper: Research paper.

1. Introduction

The cash flow statement is an integral component of an enterprise's financial statements, providing information on how cash is raised and where it is spent. Thus, it complements the accrual information obtained using the balance sheet and income statement of the company. Therefore, it finds its application in the analysis and evaluation of financial liquidity, but also

in the analysis of profitability as well as the ability of business entities to service their obligations.

Even the preliminary analysis of the financial situation of the enterprise through the prism of balances from the various types of activities (that is, operating, investing and financial activities) allows us to draw preliminary conclusions about the financial condition of the studied business entity. This publication is devoted to this issue, which is a development and continuation of the article author's earlier research.

The first part of the article presents an overview of selected publications on the use of the cash flow statement in specific areas of economic and financial analysis. The empirical part approximates the assessment of the financial position of non-financial companies listed on the Warsaw Stock Exchange for the years 2014-2023. A total of 366 business entities that were listed on the WSE for at least one year during the period under consideration were analysed on a stand-alone basis.

2. Use of cash flow statement information in assessing financial position – selected studies

As the literature indicates, only by analysing the company's situation through the prism of the balance sheet, income statement and cash flow statement a comprehensive view of the financial position of the enterprise can be obtained (Micherda, 2001; Famielec, 2016). R. Bowen, D. Burgstahler, L. Daley (1987) showed as a result of their research that for users of financial statements both cash and accrual information is necessary[1]. D. Wędzki (2003) analysing the financial management of a company underlined that it is increasingly more important to indicate the source of financing and where cash is spent than to identify in detail the revenues and costs of operations[2]. Thus, just by looking at the enterprise through the prism of cash flows generated from the various activities, it is possible to draw preliminary conclusions about the financial situation of the business entity, including its ability to pay its short-term obligations on time. In the literature, one can find publications indicating that cash flows are more objective in assessing the activity of an economic entity than the achieved financial result (Austin, Bradbury, 1995; Sharma, Iselin, 2003; Maślanka, 2008, pp. 44-45; Forfa, 2009).

[1] Compare (Carlslaw, Mills, 1991; Austin, Bradbury, 1995).

[2] The literature (Largay, Stickney, 1980; Karbownik, 2012) cites the example of W.T. Grant Company, where measures based on accrual elements of financial statements (that is, referring to the balance sheet and income statement) indicated the entity's good financial condition. In reality, however, the cited entity was characterized by a very poor financial condition, which led to its bankruptcy. At the same time, the cited authors pointed out that signals of a threat to the continuation of W.T. Grant Company's operations could already be read from the cash flow statement several years before bankruptcy (Compare (Lee, 1982)).

Topics of research on the evaluation of the enterprise through the prism of balances from different activities are presented in publications, among others: (Waśniewski, Skoczylas, 1993; Micherda, 2000; Shamsudin, Kamaluddin, 2015; Andrzejewski, Mazur-Maślanka, 2017; Maślanka, Mazur-Maślanka, 2021, pp. 140-147). As indicated by the cited studies, the second pattern of cash flows (that is, a positive balance from operating activities and negative flows from investing and financing activities) occurs most often among business entities (compare (Sierpinska, 2000; Steyn, Hamman, 2005).

Based on the analysis of the literature, it can be concluded that investment cash flows are positively correlated with the fact of financial difficulties in the enterprise (Bui, Mai, 2021). At the same time, an increase in cash flows from operating activities and financial activities most often results in a decrease in the threat of going concern (Bui, Mai, 2021; Romadhina, Fitriani, Andhitiyara, 2022; Phan, Hoang, Tran, 2022; Le, Nguyen, 2022) or even can positively affect the value of the enterprise (Nikbakht, 2024) or the entity's ability to pay dividends (Dada, 2021). On the other hand, some researchers indicate the lack of a statistical relationship between cash flows from investing activities and the risk of bankruptcy (Sayari, Mugan, 2013; Roslan, Rus, Rozzani, 2022). Interesting considerations of the development of cash flows in the enterprise at different stages of the life of the entity can be found in publications: (Steyn, Hamman, 2005; Dickinson, 2011).

The problems of constructing analytical indicators using information derived from the cash flow statement have been approximated in the following publications, among others: (Carlslaw, Mills, 1991; Sylvestre, Urbancic, 1994; Grzelak, Karmanska, 1996). The use of the referenced metrics in selected areas of economic and financial analysis, that is, in the analysis of liquidity, profitability or debt, among others, is presented in the following studies: (Czerwińska-Kayzer, 2015, 2016; Andrzejewski, Mazur-Maślanka, 2017; Maślanka, Mazur-Maślanka, 2021, pp. 149-169).

Predictive capabilities in predicting the bankruptcy of business entities of selected indicators referring to the cash flow statement have been approximated in publications, among others: (Casey, Bartczak, 1985; Fawzi, Kamaluddin, Sanusi, 2015; Maślanka, Mazur-Maślanka, 2021, pp. 192-203). The cited studies indicate the effectiveness of single performance indicators or cash sufficiency in predicting the bankruptcy of business entities at 61% to 82%. On the other hand, one can also find studies in the literature indicating the high effectiveness of metrics using cash flow information in predicting bankruptcy (Őzcan, 2020).

Indicators based on cash flows, despite the average individual ability to predict the threat of going concern, can, as low correlated with other measures of financial analysis, improve the effectiveness of models (developed, for example, using discriminant analysis or decision trees) for predicting the bankruptcy of business entities. Confirmation of the cited conclusions can be found in the results of research presented in the following publications: (Gilbert, Menon, Schwartz, 1990; Rujoub, Cook, Hay, 1995; Maślanka, 2008, pp. 230-251; Muller, Steyn-Bruwer, Hamman, 2009; Mazouz, Gambrel, 2013; Gupta, Wilson, Gregoriou, Healy, 2014;

Shanmugham, Mahalakshmi, 2015; Khoja, Chipulu, Jayasekera, 2016; Karas, Reznakova, 2020; Rodríguez-Masero, López-Manjón, 2020). On the other hand, it is possible to point to research results indicating the higher effectiveness of accrual categories compared to measures based on information derived from the cash flow statement in bankruptcy prediction (Gombola, Haskins, Ketz, Williams, 1987; Watson, 1996; Sharma, 2001; Welc, 2017).

3. Evaluation of the enterprise using cash balances from different activities – theoretical considerations

The table below (Table 1) presents cash flows patterns. The author presented the balances from each type of activity, omitting information on the change in net cash. The following section briefly comments on the information that can be obtained based on an analysis of these cash balances.

Table 1.
Variants of the company's financial situation depending on the cash balance of each activity

Lp.	Cash flow from operations		
	operational	investment	financial
1.	+	+	+
2.	+	-	-
3.	+	+	-
4.	+	-	+
5.	-	+	+
6.	-	-	+
7.	-	+	-
8.	-	-	-

Source: own elaboration based on the literature.

Positive cash flows from all types of activities (that is, operating, investing and financing), in economic practice, occur sporadically (Maślanka, 2008, pp. 120-135; Śnieżek, Wiatr, 2015, pp. 591-633; Andrzejewski, Mazur-Maślanka, 2017). The occurrence of such flows, especially in the long term, results into the accumulation of cash in the economic entity. Such a situation most often indicates that the enterprise is preparing for major capital expenditures or planning to acquire another entity in the forthcoming period. The lack of investments made in subsequent periods will be indicative of growing over-liquidity and ineffective management of the acquired capital. Most often, rising liquidity ratios and an increase in the company's net working capital will be observed in parallel.

The second pattern, presented in the table, i.e. positive cash flows from operating activities with simultaneous negative cash flows generated from investing and financing activities most often characterize mature, profitable[3] and well perceived by investors entities (Gup, Samson, 1993). In the described situation, cash generated by the enterprise from its core activities is sufficient to carry out investment activities (purchases of productive as well as investment assets) and to service the capital raised by the entity in earlier periods (for example: repayment of loans, loans, interest payments to donors of foreign capital or dividend payments to owners). The considered variant of cash flows will characterize business entities cautious about financing with foreign capital, with limited use of positive leverage effects.

The occurrence of negative cash flows from all operations may result into a gradual decline in liquidity ratios, which could be worrying information in the long term. Important in such a situation will be the net capital expenditures made by the business unit, which in subsequent periods should result into an increase in the benefits generated from the core business.

As mentioned earlier, numerous studies (Steyn, Hamman, 2005) indicate that this variant of cash flows is most often identified in business practice.

With the occurrence of positive cash flows from operating and investing activities, while at the same time negative cash flows from financing activities, the key element in assessing the financial position of the company becomes the source of surplus funds generated from investing activities. These can be funds obtained from expenditures made earlier on financial assets (for example, in the form of interest, dividends or proceeds from their favourable liquidation). In this situation, these cash flows can be evaluated positively - as the company raises funds from its core business, at the same time making payments to equity and debt capital providers (financing activities). An aspect that should be noted in the case of this situation is the lack of major capital expenditures, which in the future may translate into a decline in the quality of the company's assets necessary for further core business.

Positive net cash flows from investing activities, however, may also indicate a need to liquidate fixed assets (including production assets) due to a lack of cash to pay liabilities on time. Such a variant will be particularly worrisome when flows from operating activities result from the release of funds from working capital with simultaneous negative gross (or net) financial results reported by the company in the income statement (Maślanka, 2008, pp. 120-135; Stefanski, 2012).

Companies characterized by positive net cash flows from operating and financing activities with simultaneous negative flows from investing activities (variant four) are most often characterized by good (or very good) financial standing. These entities generate surplus cash from their core activities, invest in new assets (both operating and investment), propping up new external capital. According to the literature (Nowak, 2008, pp. 143-144; Maślanka, 2008,

[3] The fact of positive cash flow from operating activities is not, of course, the same as positive financial result presented in the income statement, but in this variant positive financial result and net cash flow from core activities most often go hand in hand.

pp. 56-57; Gos, 2011, pp. 172-173; Mioduchowska-Jaroszewicz, 2012; Stefanski, 2014), the considered variant of cash flows is perceived as the best and most desirable by investors.

In the cash flow patterns discussed above, the main source of cash is the core business of the enterprise. In most cases, positive net cash flows from operating activities occur in safe, stable and profitable enterprises. The next four variants inherently describe business units in a weaker financial position, as they are characterized by negative net cash flows from operating activities. In these situations, the possible source of earned cash surpluses (with the exception of variant eight, characterized by negative net cash flows from all three activities) is investment or financing activities.

Variant five is characterized by negative net cash flows from operating activities and surpluses achieved from investing and financing activities. An enterprise characterized by the above cash flows pattern may be in crisis in the area of core business, but it has the opportunity to raise funds from other areas of its operations. Particularly positive signals can be positive net cash flows from financing activities that confirming the credibility of the enterprise in the eyes of providers of new external capital (both foreign and own). This kind of cash flow can occur when a company begins restructuring processes or changes its business profile. The need for change is evidenced by the recapitalization of core activities. The initial phase of restructuring can also be evidenced by positive flows from investment activities resulting from the company's disposal of redundant production or financial assets.

In a situation where the fifth variant of the considered cash flows informs about the beginning of restructuring in the company, the flows described in the sixth variant will appear quite often in the next period, that is, negative cash flows from operating and investing activities with simultaneous surpluses of cash obtained from financing activities. The company raises more funds from outside, invests in new production assets, at the same time continues to perform poorly from its core business. If the investments being made are effective, they should translate into increased cash inflows from core activities in the future.

The sixth pattern of cash flow also occurs at a completely different stage of the business entity - that is, at the beginning of its operations. A young enterprise, even if it generates positive financial results in accrual terms (at the level of the result from operations or at the level of the net financial result), most often requires recapitalization of operating activities - hence there is a shortage of funds from core activities. At the same time, it acquires the production assets necessary for operations, thus resulting in negative net cash flows in the investment section of the cash flow statement.

Negative net cash flows from operating and financing activities with a surplus of funds earned from investing activities most often inform about a very poor financial situation of the analysed enterprise. The business entity in such a situation of shortage of funds from core activities tries to supplement them by liquidating production assets while not having access to new external sources of capital. Such cash flows suggest the persistent nature of the problems

of the analysed business entity. Thus, they are relatively common in enterprises in the period before their bankruptcy (Kordestani, Bakhtiari, Biglari, 2011; Stefanski, 2014).

The eighth pattern, i.e. negative net cash flows from all three activities, like the first variant, is relatively rare in business practice (Śnieżek, Wiatr, 2015, pp. 591-633). However, the financial situation of the enterprise characterized by the considered cash flows pattern is not very bad - as it might seem with only a cursory analysis of the problem. After all, the fact of the occurrence of negative cash flows in all three types of activities may inform about high over-liquidity occurring at an earlier period in the business unit under consideration. An ambiguous assessment of the situation may be evidenced by negative cash flows from investment activities signalling expenditures made on production or investment assets. However, one should be aware that if the investments undertaken do not result in an increase in the benefits of the core business, the business entity under consideration will be forced to liquidate them and most likely cease operations.

At the end of the presented considerations, it should be emphasized once again that when analysing the financial condition of an enterprise, the conclusions obtained from the evaluation of the cash flow statement should be confronted with the conclusions arising from the analysis of other elements of the financial statements (Famielec, 2016). In addition, it should be emphasized that the considerations presented can only be applied to significant net cash flows from the individual activities of the entity. Thus, cash flow values oscillating around zero should be treated as insignificant for this type of analysis.

4. Empirical findings

The following part of this study presents an analysis of the financial position of business entities using balances from different types of activities (that is, operating, investing and financing activities). The research was conducted based on the financial data derived from individual financial statements of 366 non-financial[4] business entities listed on the Warsaw Stock Exchange from 2014 to 2023. The financial statements were obtained from the Notoria database. The number of entities examined varied in individual years, mainly due to the unavailability of data or the fact that the analysed entities were not listed in selected years (e.g. initial public offering in the period under consideration[5] or withdrawal of the company from public trading[6] in the years analysed).

[4] Thus, in the first step, the following entities were omitted from the considerations: banks, insurance companies, entities dealing in debt trading, and investment funds. As a result of further selection, entities operating as central companies, conducting all their core activities through subsidiaries, were also removed from the database.

[5] For example: 4Mass SA – IPO on the Warsaw Stock Exchange in 2019, Archicom SA – IPO in 2016, and Games Operators SA – IPO in 2020.

[6] For example: Alchemia SA was withdrawn from public trading in 2019, while Alma Market SA was withdrawn from public trading in 2018 (due to its bankruptcy).

The collected results are presented in the tables (2 and 3) below.

Table 2.
Cash flow patterns among analysed entities

Variant	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	Total
1. (+, +, +)	2	2	2	8	2	2	2	2	1	2	25
2. (+, -, -)	118	117	112	124	137	110	138	128	149	111	1 244
3. (+, +, -)	55	42	48	50	41	44	36	32	31	31	410
4. (+, -, +)	27	34	37	37	48	50	47	57	59	58	454
5. (-, +, +)	13	15	14	13	13	14	11	10	7	13	123
6. (-, -, +)	26	28	45	27	32	44	34	33	27	38	334
7. (-, +, -)	12	26	17	19	12	18	15	17	15	12	163
8. (-, -, -)	13	14	14	5	3	12	9	16	3	8	97
Irrelevant	13	9	13	7	11	9	11	9	6	7	95
Total	279	287	302	290	299	303	303	304	298	280	2945

Source: own elaboration.

Table 3.
Cash flow patterns among analysed entities (in %)

Variant	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	Total
1. (+, +, +)	0,7	0,7	0,7	2,8	0,7	0,7	0,7	0,7	0,3	0,7	0,8
2. (+, -, -)	42,3	40,8	37,1	42,8	45,8	36,3	45,5	42,1	50,0	39,6	42,2
3. (+, +, -)	19,7	14,6	15,9	17,2	13,7	14,5	11,9	10,5	10,4	11,1	13,9
4. (+, -, +)	9,7	11,8	12,3	12,8	16,1	16,5	15,5	18,8	19,8	20,7	15,4
5. (-, +, +)	4,7	5,2	4,6	4,5	4,3	4,6	3,6	3,3	2,3	4,6	4,2
6. (-, -, +)	9,3	9,8	14,9	9,3	10,7	14,5	11,2	10,9	9,1	13,6	11,3
7. (-, +, -)	4,3	9,1	5,6	6,6	4,0	5,9	5,0	5,6	5,0	4,3	5,5
8. (-, -, -)	4,7	4,9	4,6	1,7	1,0	4,0	3,0	5,3	1,0	2,9	3,3
Irrelevant	4,7	3,1	4,3	2,4	3,7	3,0	3,6	3,0	2,0	2,5	3,2
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Source: own elaboration.

Cash flow patterns, characterized by positive cash flows from core activities, are commonly considered to provide information about the good (or very good) financial condition of the business entity. Among the analysed companies, variants of this type occurred in 72.4% of the cases considered - most often in 2015 (80.5%), rarest in 2021 (65.9%) and 2022 (67.9%).

The first variant, i.e. characterized by positive cash flows from all three types of activities among the analysed entities appeared extremely rarely - in total, it accounted for only 0.8% of the total number of observations studied. Positive balances from all types of activities appeared, among others, in the cases of such companies as Comarch SA, ZE PAK SA in 2022, and Agora SA 2 in 2020.

The theory suggests that the occurrence of such cash flows is related with the company's accumulation of funds for past investment spending. Meanwhile, among the surveyed entities, significant investment spending was observed in the following year in 32% of cases. Most of the identified entities (72%) at the time of the occurrence of positive flows from all three activities were characterized by a measure of current liquidity at normal or above-normal levels.

In most of the identified entities, positive cash flow from all three activities was associated with an increase in liquidity measures. However, this was not the norm, as 9 out of the identified 25 cases saw a slight decrease.

Positive cash flows from core activities and negative net cash flows from other areas of activity is a situation that most often indicates good or very good financial condition of a business entity. This variant was by far the dominant one among the analysed business entities throughout the 10-year period under consideration. It accounted for 36.3% of the total number of cases in 2018 to 50.0% in 2015 (in total, for the entire period under study, the share was 42.2%). The dominance of this variant among listed companies was demonstrated also in earlier studies. In the study authored by T. Maślanka in 2008 (pp. 120-132), among the considered entities of the construction industry for the years 1998-2004, this variant occurred in 24.1% of cases, while among trading units in 40.8%[7] . The publication by E. Śnieżek and M. Wiatr (2015, p. 621) showed the share of this pattern among the surveyed listed entities, for the years 1995-2010, at the level from 22.7% in 1998 to 48.2% in 2002.

Positive cash flows from core operations with negative investment and financing flows for all the years considered in this research were repeated in the cases of the companies: AC SA, Aplisens SA, LW Bogdanka SA, Dębica SA, Grupa Kęty SA, Muza SA, Sonel SA, Text SA and Voxel SA, clearly confirming to the very good financial condition of these entities.

The third variant, characterized by positive net cash flows from operating and investing activities with negative cash flows from financing activities among the surveyed units appeared on average in 13.9% of cases. This situation was most rarely in 2015 (10.5%), while it was most frequent in 2023 (19.7%). This situation, as mentioned earlier, may be indicative of some stagnation in the surveyed enterprise (benefits derived from both core and investment activities) or of some upcoming problems related to the business continuity (selling off assets). In this case, the decisive factor in the final assessment, most often, is the source of surplus cash from investing activities.

It should be noted that as of 2020, this variant occurs more frequently than the fourth variant (at the same time, as of this year, it became the second most frequent variant).

Positive cash flows from operating activities and financing activities at the same time as a negative stream from investing activities indicate - usually - a prosperous, growing enterprise. Among the surveyed business units, this variant occurred on average in 15.4% of the cases considered. The most frequent such flows were identified in 2014, occurring in 20.7% of the entities. In 2023, on the other hand, the above variant of cash balances occurred the least frequently, that is, in 9.7% of the companies analysed in that year. Among the analysed entities, the fourth variant occurred most often (that is, eight times) in the case of Labo Print SA,

[7] T. Maślanka and I. Mazur-Maślanka in 2021 presented the results of non-financial studies of public companies using consolidated financial statements (2021, pp. 140-147). In the referenced studies, the second variant of cash flows appeared in as many as 48.9% of cases.

connected with the dynamic development of this entity in the given period. It should be mentioned, that this development was supported, however, in large part by external capital.

Let the dominance of the occurrence of the second and fourth variants of cash flows among the surveyed entities be evidenced by the fact that no other variant of cash flows appeared in 32 of the analysed entities in all the years in question (in many companies, the above variants occurred in less than 10 cases due to the fact that these entities were not listed on the Warsaw Stock Exchange for all those years - 62 such entities in the analysed sample can be identified).

In conclusion, it should be noted that in 33.1% (121 companies) of the total entities studied, in all the years for which the individual financial statements of these companies were available, these entities showed one of the four cash flow variants mentioned above (that is, positive cash flows from operating activities with simultaneous negative or positive investment and financial flows). This fact confirms the good condition of the vast majority of the entities under consideration during the period under review.

The remaining defined cases of cash flow development (characterized by negative net cash flow from operating activities) may be indicative of greater or lesser problems in the analysed companies. These variants occurred in 24.3% of the total number of cases (they appeared most frequently in 2021 - 29.8% of cases, and least frequently in 2015 - 17.4%).

Surprisingly rare among the analysed entities was the fifth variant of cash flows, that is, negative cash flows from core activities and positive flows from investing and financing activities. This variant appeared in 4.2% of cases, while the highest percentage (amounting to 5.2%) could be observed in 2022, while the smallest, i.e. 2.3%, was recorded in 2015. In comparison, in the study of T. Maślanka and I. Mazur-Maślanka (2021, pp. 140-147) conducted using consolidated financial statements of public entities for the years 2010-2020, the percentage was 2.5%. In contrast, in the research of E. Śnieżek and M. Wiatr (2015, p. 621), the share of the fifth variant ranged from 0.0% in 1996 to 8.1% in 2006 (the analysis covered the years 1996-2010).

The fifth pattern among the surveyed companies appeared most often - as many as six times - in the case of Inter Cars SA. In this case, in most of the periods under consideration, negative flows from operating activities were mainly due to the Company's significant expenditures on working capital. The mentioned variant of balances from individual types of activities occurred five times in the case of PBG SA in restructuring (currently PBG SA in liquidation). In the case of this entity, the mentioned cash flows were largely due to attempts to repair the analysed company.

Among the variants characterized by negative cash flows from core activities, another sixth variant, that is, negative cash flows from operating and investing activities and a positive balance from financing activities, occurred most often among the analysed business units. Among the surveyed cases, this variant occurred on average in 11.3% of cases - most frequently (14.9%) in 2021, while least frequently in 2015 (9.1%). Among other things, this variant

occurred among entities that raised new external capital (for example, by issuing shares) and among entities that were in the process of restructuring or re-branding their operations.

Among the analysed non-financial entities, the distinguished sixth variant of cash flows from individual activities was exceptionally common among medical related entities, representing the following sectors: biotechnology (Molecure SA), medicine production (Mabion SA) or medical equipment and materials (Adiuvo Investments SA).

The next variant - the seventh - that is, a negative cash flow from operating and financing activities and a positive investment stream most often carries worrying information about the condition of the company. Among the surveyed entities, this variant occurred on average in 5.5% of cases (the most frequent, i.e. 9.1% in 2022, while the least frequent, i.e. 4.3% of cases in 2014 and 2023).

A positive investment flow with negative operating and financial flows among the analysed entities in the period under review most often appeared in Protektor SA (eight times) and Agora SA (six times). The cited entities, almost throughout the period under consideration, struggled with larger or smaller financial problems - reflected nearly every year in negative results obtained at the level of operating activities (EBIT). The subject of the causes and changes in the printed press market over the past few years is explored in, among other publications: (Dzierżyńska-Mielczarek, 2024).

The considered pattern of cash flows relatively often (three or four times in the analysed years) occurred among construction companies (for example: Interbud-Lublin SA, PBG SA, PJP Makrum SA, Polimex Mostostal SA or Prochem SA). In most cases, the entities indicated above are currently (or were) in the process of restructuring (or liquidation). Among the companies representing other types of business, where this variant also occurred, we can also mention here: All in! Games SA (currently in the restructuring process) and Fota SA (withdrawn from public trading in 2018).

As mentioned earlier, the last of the listed variants, that is, negative cash flows from all three areas of activity, is relatively rare in business practice. Meanwhile, among the surveyed entities, such a case, in the years under consideration, occurred slightly less frequently than the fifth and seventh pattern, that is, in 3.3% of observations. It occurred most often in 2016 (5.3%), while the rarest, (1.0%) in 2015 and 2019. The above variant - during the years under consideration - was repeated three times in the following entities: Celon Pharma SA, Instal Kraków SA and Remak-Energomontaż SA. Theoretically, the occurrence of this variant of cash flows should be connected with a simultaneous decrease in financial liquidity ratios.

Meanwhile, in the entities mentioned above, declines and increases in financial liquidity ratios (both current and increased) were observed with equal frequency. In the first two mentioned entities, liquidity ratios above theoretical standards could be observed in the analysed years.

In conclusion, it should once again be emphasized that among the surveyed companies, negative cash flows from core activities were relatively rare, that is, in 24.3% of the total cases considered. It should be noted, however, that it is possible to indicate entities in which negative cash flows from core activities occurred in almost all (or all) of the considered years. This situation occurred in Miraculum SA (in all the years under consideration), Mabion SA, Onesano SA, PBG SA, Protektor SA and Ryvu Therapeutics SA (nine times out of ten observations).

5. Summary

This publication takes a closer look at the assessment of the overall financial position of non-financial companies listed on the Warsaw Stock Exchange for the years 2014-2023 using balances from individual activities in the cash flow statement. In addition, the theoretical part indicates selected publications presenting the possibilities of using the cash flow statement in the analysis and assessment of the financial position of economic entities. The conclusions from the publication can be used both by financial managers in business entities and by economics students and as inspiration for conducting in-depth research in this area.

Among the observations that should be noted, is the fact that positive cash flows from core activities dominate among the business entities under consideration. The most common pattern that was identified, was positive cash flows from operating activities with negative flows from investing and financing activities (variant 2), describing business entities that are in a good financial situation. Among the variants characterized by negative cash flows from operating activities, the most common variant identified was variant number 6, which is typical for entities remaining in the process of restructuring or entities debuting on the securities market.

As can be concluded from the presented literature review and the results of empirical research, positive cash flows from investing activities are a strong indicator of an entity's unfavourable financial situation.

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