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The relationship between profitability and financial liquidity among the importers of best-selling brands of new cars in poland

Abstract
The automotive industry is a particularly sensitive sector of the economy. Numerous legal changes have been introduced in Poland that may affect the company's liquidity and profitability. Sales of new vehicles in Poland were very high until the end of 2019. I have presented the most recently available financial data, and hence it can be concluded that they are not distorted. The article discusses the issue of cash flow statements and the associated financial ratios, as well as assesses the financial liquidity among the importers of new, ten best-selling car makers in Poland between 2015 and 2019. Moreover, I have analysed the relationship between profitability ratios and liquidity ratios as well as cash adequacy ratios during this period. According to my findings, in most cases, there is a positive and strong relationship between profitability and financial liquidity in the automotive industry.

Keywords
financial liquidity | automotive sector | cash flow statement | ratio analysis

JEL Codes
G30, M40

1 Introduction

This article aims to familiarise the reader with the components of a cash flow statement and the ratios that relate to it. It is this statement that very often betrays the current financial condition of the company and the further directions of its development. Financial liquidity has always been a more important parameter than a high financial result (Gorton and Pennacchi, 1990). Both studies in this area (Wędzki, 2018; Kil, 2018, Wędzki, 2017; Nita, 2016; Wędzki, 2012; Wędzki, 2009; Wędzki, 2002; Wędzki, 1995; Puxty & Dodds, 1992; Crum, Klingman, & Tavis, 1983) and business practice demonstrate that high-performing companies were not always able to "survive' over time. Besides, this article also seeks to examine the financial liquidity between 2015 and 2019 of select automotive industry importers registered in Poland. I plan to use a research sample of 10 such companies.

These enterprises operate in different areas, such as trade, service, production and sometimes all of the above simultaneously. Many industries can be distinguished in the current economy. The automotive industry is extremely common, accounting for a 10.50% share in industrial production (Statistical Yearbook, 2018). Entrepreneurs from this sector deal with the sale and production of car parts, maintenance services, body and paint services, and the sale of new and used vehicles. The latter tangible goods come from importers. These, in turn, generate sales revenues mainly from the sale of vehicles to dealers and agents who sell these products in individual provinces in a given country.

It is worth noting that the data necessary for a detailed analysis of this sector are easily available. In Poland, the National Court Register (KRS) previously known as the Commercial Register (Act, 1997), has been operating since 2001. Besides, since 2017, financial statements of commercial companies have been published electronically. Originally, these documents had to be submitted in electronic form as a scanned document. However, since 2018, these statements are prepared in a structured form, except for those prepared following IAS/IFRS.

Moreover, the analysis of relatively 'high' values allows a more reliable examination of the economic performance of the industry in question. It is also worth emphasising that this is a unique sector. I have decided to study the data from 2015 to 2019 as these were the most up-to-date figures available on the date of the publication. The research methods include the analysis and criticism of the literature, analysis of documents, calculation of data from financial statements and data tabulation. The main goal of the research has been to observe how the data changes through time as the industry develops and to analyse the relationship between profitability and liquidity ratios, which come from the profit and loss accounts, balance sheets and cash flow statements. For this purpose, the r-Pearson correlation coefficient was used.

The following research questions will be addressed in empirical research:

> Q1: Most companies in the examined sample showed positive ratios of liquidity and efficiency.
>
> Q2: Car importers increase their savings through speculation on the economic future.
>
> Q3: The increased number of vehicles sold in a given year also increased individual financial ratios.
>
> Q4: In most of the analysed cases, there is a statistically strong correlation between profitability and financial liquidity ratios.

Speculation on cash availability in the event of random occurrences is necessary, and sudden expenses during a crisis threat are an indispensable aspect of the functioning of every economic entity. Reasonable and predictable cash management is of utmost importance in managing the company's resources (Sierpińska, Sierpińska-Sawicz, & Węgrzyn, 2019)

2 Cash Flow Statements and Financial Analysis

Investors, proficient auditors, and many other internal and external recipients benefit from financial statements. The basic form of this report is the annual statement. In the case of our research, companies of this size are obliged to have their books of accounts audited by independent statutory auditors (Act, 1994). In 'large' companies, financial statements are generated every month (Kowalak, 2017). The literature also includes other breakdowns of the financial statements according to numerous features (Table 1). Car importers are independent entities, which mean that they do not consolidate with dealers who source their goods from them.

Tab. 1: Breakdown of financial statements.

Item	Characteristics
Scope	Annual separate/annual total/ annual consolidated
Obligatory or not	Obligatory/optional
Obligation to publish	Must be published/does not have to be published
Frequency	Systematically/sporadically
Degree of generality	Synthetic/analytical
Reporting period	Ex post (actual return)/ex ante (expected return)
Recipients	External/internal

Source: Kowalak (2017) and Wędzki (2009).

It is also important to recall the functions of financial statements (Nita, 2020):

- Information function: analysing the actual condition of the company and 'foundations' of planning
- Documentation function: reliable historical data
- Analytical function: helps to carry out economic and financial analysis
- Control function: assessment and defining directions for the development of the company

The cash flow statement is a component of the financial statements of entities that are subject to audit by a statutory auditor and is also mandatory for those companies that use IAS/IFRS (international standards), which first came to force in 1972. The IAS standards had been published until 2001 and were then replaced by IFRS (Hołda, 2013). In the 'classic' formula of the cash flow statement, we can distinguish three types of activities (Folga & Trzpioła, 2017):

- Operation;
- Investment;
- Financial.

Tab. 2: Items of the cash flow statement in business operations

Direct method	Indirect method
a. Cash flows from operating activities	a. Cash flows from operating activities
I Receivables	I Result (net profit/loss)
1. Sales	II Adjustments total
2. Other proceeds from operation activities	1. Depreciation
II Expenses	2. Profits (losses) due to exchange rate differences
1. Supplies and services	3. Interest and shares in dividends
2. Net salaries	4. Profit (loss) on investment
3. Social and health insurance and other benefits	5. Change in reserves
3. Taxes and public law charges	6. Change in inventory
4. Other operating expenses	7. Change in receivables
III. Net cash flows from operating activities (I-II)	8. Change in short-term liabilities, except for loans and credits
	9. Change in the status of accruals
	10. Other adjustments
	III. Net cash flows from operating activities (I-II)

Source: Folga & Trzpioła (2017).

Analysis of cash flow statements allows us to answer questions such as:

- What level of financial resources does the company obtain from the core (operating) activities?
- Which area generates the highest cash flows?
- Is the company able to finance current activities?
- Is the surplus cash being invested?
- What share of external financing is involved in investments?
- How have the levels of inventories, trade settlements, and reserves changed over the years?

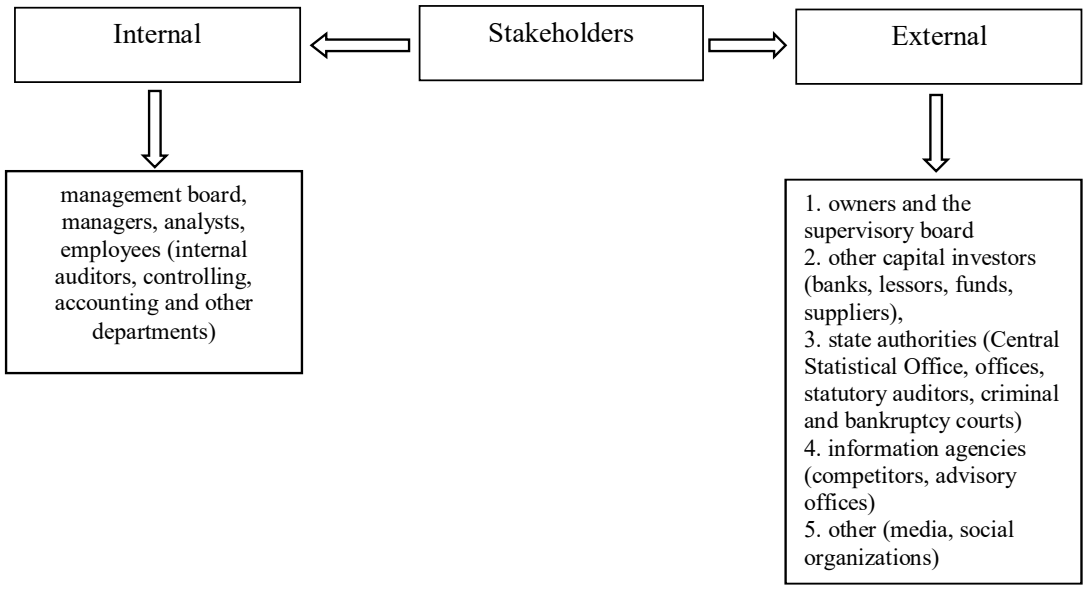
In conclusion, we can say that no other financial statements provide such detailed information about a company. The cash flow statement is one of the most difficult financial statements to prepare. In reality, few people can see the positive benefits of their analysis (Any, 2015). We should add that the data in the balance sheet or profit and loss account can be "distorted." On the other hand, the cash flow statement must be consistent. In other words, it is not possible to make it correctly without entering all the items correctly (Gos, Janowicz, Mućko, Niemiec, & Skoczylas, 2017). Manipulation of financial data often brings tangible results, because the penalties for such fraud are very severe (Kurek & Górowski, 2019).

In Poland, the first legal regulations regarding the cash flow statement came into force on July 29, 1991 (Bereźnicka & Franc–Dąbrowska, 2008). It laid down specific conditions for the prospectuses of financial instruments. It was officially adopted as an element of financial statements in Poland in 1995 (Forfa, 2009). Colloquially called 'cash flow', it can be prepared using the direct and indirect method. An extremely important basic principle is that the company must only use one type of cash flow statement method. It is not possible, even forbidden, to change the method of preparing financial statements without a valid reason (Śnieżek, 2017).

The cash flow statement for entities that keep accounting books under the Accounting Act (Act, 1994) differs only for some operating activities. Table 2 lists the receipts, expenses and adjustments that affect the cash flows from the core activities of a company. Intriguingly, the International Financial Reporting Standards recommend the use of the indirect method of preparing 'cash flow' (Iwasieczko, 2019). One can find positives resulting from this approach. When looking at cash flows from operating activities, we can observe how the levels of inventories, reserves or trade settlements changed over two comparable periods. This allows the investor to quickly verify the direction in which an entity is heading (Gilchrist & Himmelberg, 1995).

As Almeida writes, Campello & Weisbach 'adjustments are made to make the cash flows more realistic by the amount of the adjustment to the result, without causing outlays and cash inflow' (Almeida, Campello, & Weisbach, 2004). Investing and financial activities of the cash flow statement do not change the structure of reporting items in compliance with the formula for entities that prepare financial statements following the Accounting Act (Act, 1994).

The statement of cash flows and other financial statements cannot be made 'by chance'. However, 'cash flow' is so sensitive a component that any misrepresentation of the financial facts in the balance



Illustr. 1: Classification of the company's stakeholders. *Source*: Wędzki (2009).

sheet and profit and loss accounts will significantly distort the statement of cash flows, which may lead to a negative view of the financial data by stakeholders. As M. Wójcik-Jurkiewicz and R. Jurkiewicz write, 'the credibility of economic information generated by economic entities has been and will be the subject of unremitting discussions, although not in relation to international solutions in which it was reflected' (Wójcik-Jurkiewicz & Jurkiewicz, 2014).

The ratio analysis of financial statements plays an extremely important role. It is used by the recipients of financial statements, both internal and external. Illustration 1 classifies the stakeholders and defines them in detail. For example, 'other investors of capital' will be interested in the company's financial condition in terms of risk assessment, possible failure to pay liabilities on time or complete inability to repay (most often) borrowed funds to finance current business operations. At this point, it is necessary to emphasise the particularly significant risk of the company's insolvency, which has been discussed many times in the literature (Bijak, 2009; Wędzki, 2012; Kopczyński, 2010; Zieniuk, 2019; Zajdel, 2004; Wędzki, 1998).

The economic analysis indicators of a company can be divided into many categories. Table 3 lists groups of financial ratios and describes them briefly. Financial statements must be analysed before the presentation because more often it is done with insufficient data. Commonly, the financial analysts, statutory auditors, as well as the Central Statistical Office, rating agencies and other stakeholders are the ones that benefit from such an analysis. This analysis, in turn, is often perceived as one of the internal control systems in an economic entity (Winiarska, 2019).

When discussing the groups of financial analysis indicators presented above, it can be seen that each of them is important for each stakeholder. However, it is especially worth stressing that statutory auditors should also rely on the assessment of the above-mentioned financial parameters. For example, profitability analysis is recommended for studying the continuity of operations (Micherda & Górka, 2007).

3 Research Methodology

As mentioned in the introduction, the automotive industry is a unique sector. The segmented structure of the car market relies on several interdependencies. Figure 1 shows the 'chain' of entities operating in the car sector. In the diagram below, it can be seen that the entities in question benefit in terms of positive performance as well as cash flow. It is hard to imagine a situation where the products sold do not go hand in hand with the cash flow from core activities, especially in the automotive industry, where the values are relatively high.

The first stage of empirical research was to collect relevant information for the study. It includes sales data for individual car brands from 2015 to 2019 in Poland (Samar data). To obtain detailed data, please

Tab. 3: Functions of financial ratios

Group of ratios	Purposes
Financial liquidity	Assessment of the company's ability to settle liabilities (mainly short-term perspective)
Solvency	Assessment of the risk of the company's possible bankruptcy (short-term and long-term perspective)
Management efficiency	Assessment of the opportunities and threats in the area of effective management (mainly current operations and outlook for the future)
Profitability	Assessment of the company's profitability (the prospect of current benefits)

Source: Łojek, 2020.

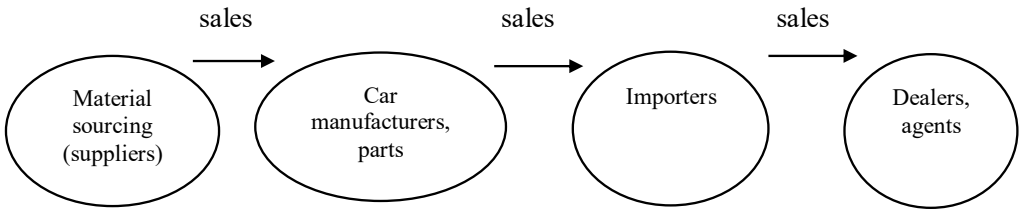


Fig. 1. Companies on the automotive market. *Source*: Łojek, 2020.

contact the author. It should be borne in mind that some car manufacturers are grouped, which means that they sell different brands of cars with the end product being a consolidated report. A perfect example is the Volkswagen group (Skoda, Volkswagen, Audi, Seat). Importers of these brands similarly combine data in a consolidated report in the country where they operate. A similar situation occurs in the case of the fourth and fifth places, as these entities sell two different brands, but for registration and reporting purposes, they operate under the name Renault Polska. Therefore, after such modelling of the sample, it is necessary to itemise the financial statements of seven economic entities, out of the ten most-bought new car brands between 2015 and 2019. The entities presented in Table 4 will be the subject of analysis. The data has been anonymised, and if anyone who wishes to obtain it can contact the author.

The second stage of the research consisted in searching for financial statements for the defined financial years in electronic systems and selecting appropriate financial analysis ratios. I have focused on the cash flow statements, balance sheets and profit and loss accounts as indicators of the financial liquidity of an economic entity. This step is closely related to finding and presenting the selected financial data necessary for the analysis. The selected financial ratios are presented in Table 5, which includes the calculation methods.

Tab. 4: Companies studied in empirical research

Car brand	Registered name of the company
Skoda, Volkswagen, Audi	Volkswagen Group Polska
Renault, Dacia	Renault Poland
Toyota	Toyota Motor Poland Company Limited
Kia	Kia Motors Polska
Mercedes	Mercedes-Benz Poland
BMW	BMW Vertriebs GMBH Polish branch
Ford	Ford Polska

Source: Łojek, 2020

For this research sample, I have decided to choose three-degree financial liquidity ratios because of the uniqueness of the industry. A very important part of these companies' balance sheets is goods recorded as part of inventories. The gradual exclusion of this report may prove to be useful in measuring how a company copes with the current settlement of liabilities. On the other hand, operating cash flow ratios serve to estimate the flows from core activities to sales revenues, mainly due to the aforementioned unique character of the industry. The cash adequacy ratio helps to assess the extent to which the suppliers' needs are met in the event of a crisis or other factors

Tab. 5: Financial analysis ratiosselected for empirical research

Item	Calculation formula
Operating cash flow to sales ratio	$\frac{\text{operating cash flow}}{\text{net sales revenue}}$
Operating cash flow to current assets ratio	$\frac{\text{operating cash flow}}{\text{average current assets}}$
Operating cash flow to current liabilities ratio	$\frac{\text{operating cash flow}}{\text{total liabilities}}$
3rd degree (current) liquidity ratio	$\frac{\text{current assets}}{\text{short-term liabilities}}$
2nd degree (quick) liquidity ratio	$\frac{\text{current assets-inventory}}{\text{short-term liabilities}}$
1st degree (immediate) liquidity ratio	$\frac{\text{cash available}}{\text{short-term liabilities}}$
Inventory turnover cycle	$\frac{\text{average inventory}}{\text{costs of goods sold}} \times \text{number of days}$
Receivables turnover cycle	$\frac{\text{short-term liabilities}}{\text{net sales revenue}} \times \text{number of days}$
Short-term liabilities turnover cycle	$\frac{\text{average short-term liabilities}}{\text{cost of goods sold}} \times \text{number of days}$
Cash conversion cycle	turnover cycle = (inventories + receivables - short-term liabilities)
Working capital ratio	current assets - short-term liabilities
overall financial condition ratio	$\frac{\text{equity/fixed assets}}{\text{total liabilities/current assets}}$
ROA *(return on assets)*	$\frac{\text{net return}}{\text{total assets}} \times 100\%$
ROS *(return on sales)*	$\frac{\text{net return}}{\text{sales revenues}} \times 100\%$
ROE *(return on equity)*	$\frac{\text{net return}}{\text{equity}} \times 100\%$

Source: Olszewski (1991), Davies (1993), Bednarski (1994), Wędzki (2009) and Sierpińska & Wędzki (2017).

if the operations slow down. Other ratios used in empirical research are the receivables turnover ratio, overall financial condition ratio and profitability ratio. In light of the distinctive features of the industry, the obtained results may turn out to be surprisingly high. In empirical research, I will make simplifications such as not excluding transactions with related entities.

Third, the summary stage of the research was in organising the financial data and interpreting them in line with the research hypotheses. These data are reliable because they are reviewed and overseen by independent statutory auditors who should detect the possible threats on the market, as well as the errors and frauds in the accounting books of a company. At this stage, a claim can be made that auditors pay special attention to the risk of accounting frauds and eliminate that risk (Fawcett & Provost, 1997). Economic practice shows that the automotive industry is also very sensitiveto newer legal regulations in this area.

4 Ratio Analysis of the Research Sample

The examined group of business entities prepares financial statements following the framework specified in the Accounting Act. This can be seen as positive because the audited companies must present and report data in a uniform manner. However, one company from the sample prepares financial statements wherein the financial year ends on March 31. It was decided to reject it from the rest of the entities to present the figures as of December 31 of a given financial year. The above-mentioned data is compiled in Table 6. The use of a non-tax accounting year is quite rare. Perhaps this was done to increase the balance sheet result with adjustments made by the manufacturer after the car is sold, with discounts and bonuses applied after a long delay. It is a very common practice in the automotive industry (Szafarowska, 2020).

When analysing the group of entities, one can notice discrepancies in the findings of empirical research. Often, this is influenced to a greater extent by internal than structural factors (Postek & Puchalska, 2012). The cash efficiency ratio informs us about the amount of cash generated from the core business, i.e. mainly from the sale of goods (in the research sample, these are new vehicles sold to dealers in Poland). The most favourable outcomes were achieved by the second company. Between 2015 and 2019, the ratio went down slightly by only 0.05 points. Therefore, the condition of the entity in question can be classified as the most stable in the sample. It is also worth noting the values of this ratio for the fifth company. In the first financial years analysed, this ratio was low, while in 2019 it was the highest among all the studied companies (0.05). This situation should be interpreted positively. It can be concluded that this entity accumulates cash that can be invested in the future. Entity number three had the lowest values of the operating cash flow to sales ratio. While in the first of the analysed years, it was relatively high, and in 2019 it decreased to 0 (a decrease by 0.02). It can be inferred that the company spent more cash than it collected over the five financial years.

The operating cash flow to current assets ratio (current assets) provides information on the amount of cash generated by the entity's short-term assets. (Białas, 2017). In the research sample, in 2015, the most encouraging results were recorded by companies one and four. These values were similar and amounted to nearly 6. However, they dropped significantly over the analysed periods. The second entity was again the most stable in terms of discrepancies over the years 2015–2019. The third company had the worst results with low operating cash flow to the current assets ratio. Summing up, it should be noted that high values of this indicator should be interpreted as positive.

Cash sufficiency is an important aspect of the company's operations. The key purpose of this indicator is to measure the ability to settle liabilities. In the studied sample, we can observe relatively low values of these parameters. Therefore, we should look for increasing trends to positively assess a given company. The fifth company reported the most promising results among the sample. Over the analysed period, this indicator improved by 0.37 points. In turn, the least favourable situation was found in the third and fourth entities. In these cases, the indicators deteriorated. It would seem that again company number had the most stable situation. Indeed, the ratio decreased significantly between 2015 and 2019, but maintaining it at the level of 0.35 in 2019 is a high result compared to other entities in the sample.

Static financial ratios come from balance sheets and profit and loss accounts and are known to most employees of financial and accounting firms. Their structure is relatively simple, yet informative enough to deduce from them how well a company is doing. The current ratio should be in the range between 1.2 and 2.0, the quick ratio – higher than or equal to 1.0, and the immediate ratio between 0.1 to 0.2. Taking into account the unique character of the industry, the adopted standards may be slightly different.

There is no slight excess liquidity in the group of companies under study. The second entity achieved the best results. Current liquidity dropped by over 0.6. The first entity recorded the most stable values for this ratio. The lowest outcomes were found for the fourth entity in the studied group. In 2015, the current liquidity ratio did not exceed the level of 0.61, while the recommended values were in the range of 1.2–2.0. The changing level of third-degree static liquidity ratios is presented in Chart 1. The data analysis shows that the third entity recorded the sharpest 'spike' in liquidity in the analysed period, while the immediate liquidity ratio increased by over 0.7. This data analysis confirms the hypothesis formulated in the introduction. These entities try to accumulate cash to secure cash flows in the event of a financial threat.

Tab. 6: Ratio analysis of financial statements of the studied entities

Ratio	Company 1					Company 2					Company 3				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
operating cash flow/ sales ratio	0.03	0.03	0.01	0.01	0.01	0.03	0.03	0.03	0.03	0.03	0.02	0.02	-0.01	0	0
operating cash flow/ current assets ratio	5.85	5.85	0.06	0.29	0.29	0.29	0.29	0.27	0.21	0.21	0.16	0.16	-0.03	0.03	0.03
operating cash flow/ current liabilities ratio	0.29	0.29	0.09	0.14	0.14	0.66	0.66	0.51	0.35	0.35	0.19	0.19	-0.04	0.03	0.03
current liquidity ratio	1.87	1.87	1.68	1.74	1.74	2.32	2.32	1.91	1.71	1.71	1.23	1.23	1.45	1.67	1.67
quick ratio	1.42	1.42	1.18	1.27	1.27	1.73	1.73	1.61	1.39	1.39	0.3	0.3	0.27	0.1	0.1
immediate liquidity ratio	0.02	0.02	0.01	0.01	0.01	0.2	0.2	0.01	0.1	0.1	0.2	0.2	0.13	0.93	0.93
inventory turnover cycle	10	10	15	13	13	9	9	4	7	7	8	8	7	6	6
receivables turnover cycle	14	14	18	20	20	4	4	9	7	7	5	5	3	3	3
liabilities turnover cycle	6	6	5	8	8	6	6	9	6	6	5	5	5	4	4
cash conversion cycle	18	18	27	25	25	7	7	4	8	8	8	8	5	5	5
overall financial condition ratio	2.56	2.56	2.47	2.47	2.47	0.88	0.88	0.94	1.01	1.01	2.58	2.58	1.64	1.78	1.78
ROA	4.32%	4.32%	4.39%	4.09%	4.09%	5.85%	5.85%	6.06%	5.23%	5.23%	3.75%	3.75%	8.89%	6.24%	6.24%
ROS	0.86%	0.86%	0.87%	0.79%	0.79%	0.77%	0.77%	0.96%	0.77%	0.77%	0.58%	0.58%	1.42%	0.97%	0.97%
ROE	22.04%	22.04%	25.81%	25.81%	25.81%	84.67%	84.67%	88.39%	62.57%	62.57%	18.33%	18.33%	33.89%	22.45%	22.45%

Continued **Tab. 6:** Ratio analysis of financial statements of the studied entities

Ratio	Company 4					Company 5					Company 6				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
operating cash flow/ sales ratio	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.11	0.05	0.05	-0.02	-0.02	0.06	0.03	0.03
operating cash flow/ current assets ratio	5.79	5.79	0.1	0.3	0.3	0.03	0.03	0.37	0.18	0.18	-0.15	-0.15	0.25	0.1	0.1
operating cash flow/ current liabilities ratio	0.04	0.04	0.06	0.04	0.04	0.05	0.05	0.58	0.42	0.42	-0.2	-0.2	0.31	0.15	0.15
current liquidity ratio	0.61	0.61	1.51	1.53	1.53	1.7	1.7	1.59	2.37	2.37	1.31	1.31	1.26	1.46	1.46
quick ratio	1.21	1.21	1.21	1.21	1.21	1.18	1.18	1.22	1.43	1.43	1	1	0.9	1.07	1.07
immediate liquidity ratio	0.47	0.47	0.41	0.47	0.47	0.73	0.73	0.2	0.53	0.53	0.84	0.84	0.75	0.53	0.53
inventory turnover cycle	21	21	25	31	31	15	15	18	12	12	4	4	5	6	6
receivables turnover cycle	34	34	42	34	34	24	24	13	16	16	6	6	10	11	11
liabilities turnover cycle	15	15	18	20	20	12	12	15	8	8	3	3	6	5	5
cash conversion cycle	40	40	49	45	45	27	27	16	20	20	7	7	9	12	12
overall financial condition ratio	0.13	0.13	0.15	0.13	0.13	3.06	3.06	4.9	5.19	5.19	0.44	0.44	0.52	0.64	0.64
ROA	3.95%	3.95%	3.76%	3.94%	3.94%	1.33%	1.33%	3.91%	8.43%	8.43%	0.37%	0.37%	1.07%	0.75%	0.75%
ROS	1.56%	1.56%	1.68%	1.56%	1.56%	0.35%	0.35%	1.28%	2.37%	2.37%	0.05%	0.05%	0.26%	0.20%	0.20%
ROE	32.85%	32.85%	32.57%	32.85%	32.85%	10.64%	10.64%	24.32%	44.95%	44.95%	8.96%	8.96%	32.38%	22.56%	22.56%

Source: Łojek, 2020

Receivables turnover ratios should aim at the lowest possible level, as they inform stakeholders about how many days capital has been 'frozen' in the form of receivables, and not in the form of cash in the company's bank account. The lower the indicator value the better (Wędzki, 2009). When analysing the entities in the sample, we see that these data diverge from each other. The most favourable receivables turnover cycle was noted in the third entity. It was at a relatively similar level during the period considered. It can be argued that collecting receivables every three days is a very good result. The data recorded for the fourth entity are the least advantageous. Collecting receivables every 34–42 days may pose a threat to the functioning of an economic entity. Looking at the changing indicator values, we find that the most stable situation was noted again in the second and third entities. These values, obtained in empirical research, should also be interpreted positively. We can surmise that these companies have very well-functioning debt collection departments. However, in business practice importers often use credit accounts which are automatically debited when the goods become invoiced to the dealer or agent.

The group of profitability ratios allows us to estimate how well equity capitals are being used to generate profits, the full value of assets, and the level of sales revenues. The most popular ratios are ROA, ROS or ROE. They are expressed as a percentage. Rising values should be interpreted as positive and mean that the company is more and more profitable. The ROA (return on assets) indicator is high in the studied research sample. The highest values were recorded by the second and third entities. Therefore, it can be said that the expected rate of return on assets was relatively high. The lowest value of the ratio was observed in the sixth entity. The average value of the difference between the most profitable and the least profitable companies was 5.56 percentage points.

The return on equity ratio has been the subject of empirical research fairly often (Arditti, 1967; Khadaffi & Heikal, 2014; Kijewska, 2015; Sondakh, Tommy, & Mangantar, 2015). In the analysed research sample, relatively high values of these indicators can be seen compared to other profitability ratios. The reason for this may be that the relationships between the financial result (shown in equity) and the value of equity are measured. The most favourable situation is seen in company number two. The average value of the investment return on equity was 78.54%, which means that in two of the three analysed financial years, this entity recorded the ratio above the average for the period from 2015 to 2019. The most stable situation was found in the first entity, while the highest increase in the indicator was observed in the fifth entity (by as much as 34.31 percentage points) in the analysed period. It cannot be unequivocally determined which entity was in the least favourable condition. We must express the conviction that the levels of the return on equity in the research sample were relatively high.

The profitability of sales in the examined group of entities did not exceed 2%, which is not a comparatively high result. However, we should take the particularity of the industry into account, where price adjustments received from producers are usually booked as a reduction of costs. Sometimes there are cases when the value of sales revenues should be increased as a result of 'bonuses'. The fourth and fifth entities achieved the highest ratios of sales profitability. These measures are the lowest for the sixth entity. However, these lower values should not be interpreted negatively. We must assume that positive levels of indicators are optimal.

The overall financial condition ratio often allows us to estimate the risk related to the loss of financial liquidity. Among the selected measures of liquidity and profitability, it is the most 'advanced' ratio that measures the most dependencies in the financial statements. The literature does not define the optimal level of this indicator. However, it is recommended to maintain an increasing trend. After analysing the studied data, we can conclude that the most favourable situation occurred in the fifth and first entity.

The analysed economic entities are part of the automotive industry, which means the data may have to be presented differently than in other economic entities. For example, a service provider will not be able to classify a vehicle as inventory; they will have to record the purchase as tangible fixed assets. Table 7 categorised the 'leaders' of the research sample. It can be concluded that being a leader of economic ratios does not always help in financial reality. As history shows, a stable company often has better prospects than a firm that has temporarily achieved certain levels of financial indicators.

Table 8 assesses the relationship between efficiency ratios relating to assets and equity, and static liquidity ratios and cash adequacy to current liabilities ratios. There is a strong, positive and statistically significant relationship (confirmed by the value of the correlation coefficient and p values). This means that entities that show higher liquidity ratios

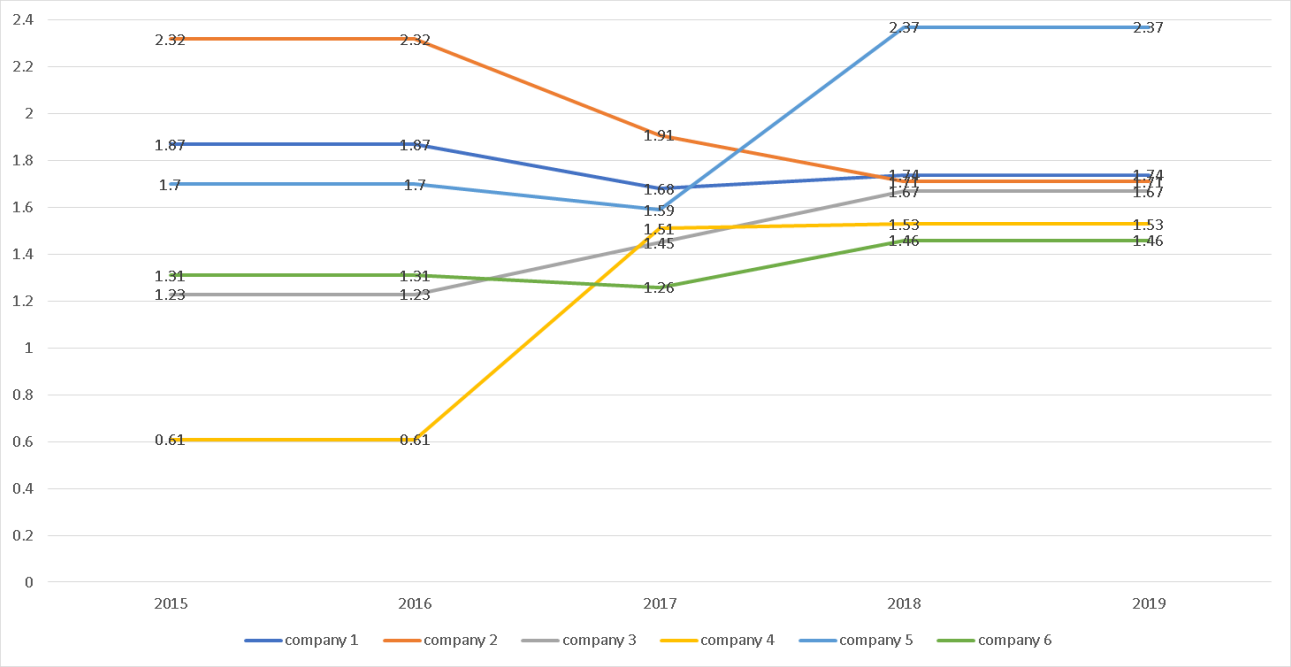


Fig. 2. Indicators of the third-level analysis of financial liquidity from 2015 to 2019 for the analysed companies. Source: Łojek, 2020.

Tab. 7: An attempt at a synthetic assessment of the studied group of entities

Item	The most commonly occurring
The most favourable situation	Company 1
The most stable situation	Company 2
The least favourable situation	Company 3 and 6

Source: Łojek, 2020.

(in terms of current liquidity and sufficient operating cash to pay off liabilities) on average had a higher rate of return on equity and total assets. Moreover, in the analysed companies, a higher level of quick liquidity is correlated with higher ROE values (with a confidence level above 99%), and this regularity has not been confirmed for other profitability ratios.

An interesting conclusion concerns the relationship between immediate liquidity ratios and profitability. The value of the correlation coefficient for all variables related to profitability turned out to be negative, which indicates a lower rate of return of those companies that were characterised by higher indicators of immediate liquidity (but this relationship was confirmed with the statistically significant correlation coefficient at the level of 1% only for ROE).

Looking at the other liquidity ratios and the discussion presented above, we can come to the tentative conclusion that in the case of automotive companies, a high level of cash, as opposed to other liquid assets, may be an important factor deteriorating the profitability of the entity and, consequently, lowering the overall assessment of the company's financial condition. However, the presented analyses should be taken with caution, taking into account the small research sample.

5 Conclusion

Summarising, it can be stated that financial liquidity is more important for the functioning of economic entities than a high financial result. This does not mean, however, that it can be ignored. Quite the contrary, one should strive to maximise income, while taking care of the financial liquidity and economic condition of the company. Undoubtedly, the current technological progress helps to control revenues and expenses in particular periods.

The specific structure of financial statements does not prevent errors on the part of the person preparing the document. However, the cash flow statement has been constructed in such a way that is must be verified

Tab. 8: Correlation matrix (r-Pearson correlation coefficient) between the study variables and the liquidity and profitability of the companies analysed

	Operating cash flow/ sales ratio	**Operating cash flow/ current assets ratio**	**Operating cash flow/ current liabilities ratio**	**Current liquidity ratio**	**Quick ratio**	**Immediate liquidity ratio**	**ROA**	**ROS**	**ROE**
Operating cash flow/ sales ratio	1.000	0.023	0.773***	0.307*	0.352*	−0.272	0.155	0.254	0.290
Operating cash flow/ current assets ratio		1.000	−0.003	−0.332*	0.222	−0.221	0.017	0.199	−0.080
Operating cash flow/ current liabilities ratio			1.000	0.620***	0.532***	−0.491***	**0.429****	0.211	**0.744****
Current liquidity ratio				1.000	0.428**	−0.225	**0.489*****	0.199	**0.485*****
Quick ratio					1.000	−0.394**	0.005	0.165	**0.537*****
Immediate liquidity ratio						1.000	−0.348	−0.130	**-0.424****
ROA							1.000	**0.735*****	**0.539*****
ROS								1.000	0.268
ROE									1.000

Note: *** significance at 1%, ** significance at 5%, * significance at 10%.
Source: Łojek, 2020.

when data is incorrectly entered in other elements of the financial statements. This is a sort of a 'warning signal' that data may be incorrectly accounted for and may distort the image of the business entity.

In the empirical part of this research, I have attempted to evaluate the financial analysis ratios in the group of importers of ten best-selling brands of new cars in Poland. The data has been compiled in tables to ensure the transparency of information about a particular economic entity. The conducted research allows us to substantiate the hypotheses put forward in the introduction to this paper that the entities are properly prepared for the event of crises . The observations were made on the recent available financial data.

Concluding the considerations on the economic condition of entities selected for the research sample, it can be said that between 2015 and 2019, the financial liquidity ratios must be assessed positively. In most cases, these entities achieved positive values of the selected liquidity measures. The tendency of shortening the cycle of collecting receivables in the observed companies should also be evaluated positively.

When analysing the profitability ratios of the entities in question, a stable level of the profitability of assets, equity and sales can be noted. This means that these companies do not perform high-risk operations, such as, for example, excessive stockpiling, which could freeze cash in inventory. Businesses often have to deal with high stock levels and hard-to-sell goods. These factors may significantly affect the profitability ratios of the examined group of entities.

In the future, it will be possible to conduct empirical studies on the impact of COVID 19 on the financial liquidity of the studied group of economic entities. An intriguing aspect for subsequent researchers may also be to conduct observations on a larger group of companies or in a different industry. The automotive industry was unprepared for the outbreak of a global pandemic, which may significantly affect the results of the analysed entities, as well as the entire industry (Kaitwait & Mudaliar, 2020).

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