Analysis of the Business Operations of a Selected Company in Terms of its Financial Performance

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https://doi.org/10.29227/IM-2025-02-04-009

Submission date: 29-06-2025 | Review date: 31-08-2025

Abstract

The aim of this article is to assess the financial performance of a selected industrial enterprise – the Orlen Group. The research methodology adopted, based on the measurement and analysis of free cash flows (FCF), combining accrual and cash accounting, allowed for an analysis of the ability to generate cash flows and maintain cash stability in the years 2020–2024. The study used financial data from the company's financial statements. The article highlights the main factors shaping cash flows in key decision-making areas. The research questions posed in this article primarily concern if the selected company generates sufficient funds to cover its current expenses and if it is able to finance future investments necessary for further development and expansion. The analysis showed that in the face of growing market challenges, the Orlen Group maintains its adopted strategy of business development and expansion, which may indicate its financial effectiveness. The research found that the Orlen Group's operating profitability is reflected in its ability to generate a financial surplus in 2021, 2023, and 2024, which contributes to the stabilization of the Group's financial liquidity. During the uncertain economic conditions of 2020 and 2022, the company generated negative cash flows. The risk factors that affected the Group's business performance can be found in two areas: the macroeconomic situation, which affects the volatility of commodity prices, especially oil and gas, and high investments aimed at creating future revenue streams. Although negative free cash flow to firm may be a warning sign of financial instability, in this particular case it appears to be a temporary and necessary element of a long-term growth strategy based on a proactive CAPEX strategy, a strategy that seems to be bringing the desired results, observing the company's growing market capitalization.

Keywords: *financial efficiency, cash flows, free cash flow (FCF), liquidity*

INTRODUCTION

In the face of strong competition, rising capital costs, and volatile commodity prices, financial efficiency is becoming a key factor in ensuring the stability and growth of companies. A precise analysis of the effectiveness of achieving objectives enables a full assessment of the company's situation, revealing not only its current economic condition, but also its growth potential, investment strategy, and ability to generate cash flows, which determine the creation of company value in the medium and long term.

The aim of this article is to verify the financial position of a selected fuel and energy company, as a representative of the industry, using cash flow-based measures. The article will discuss selected indicators for assessing effectiveness – free cash flows, whose structure allows for an analysis of the effectiveness and efficiency of operations, operational performance, as well as the company's investment opportunities and potential. The impact of specific factors on the development of individual measures will also be analysed.

The first chapter covers the theoretical aspects of free cash flow management necessary for proper analysis. The second chapter is devoted to a detailed analysis of the Orlen Group, as the main representative of the fuel and energy industry in Poland. The analysis was carried out for the years 2020-2024, using information from financial statements: balance sheet and income statement, in accordance with the indicated methodology.

FREE CASH FLOW AS A MEASURE OF PROFITABILITY AND FINANCIAL LIQUIDITY

Cash flow analysis is an important element in corporate financial management. The use of cash flow information is particularly important for: financial planning and analysis, bankruptcy forecasting, company valuation, investment project effectiveness assessment, and business performance evaluation [1]. Cash flow analysis verifies whether a company generates sufficient funds for its current liabilities, investments, and development without having to resort to external financing. A company's ability to generate positive cash flows thus stabilizes its financial liquidity, strengthens its payment capacity, and demonstrates its level of financial flexibility. This can be a positive signal regarding the company's performance. A high level of free cash flow also means that the company has a high capacity to increase shareholder wealth, which translates into an increase in the company's value [2].

Cash flows are influenced by many variables. The three most important factors are related to operational efficiency, investments in fixed and current assets, and financial efficiency related to capital structure. These factors, analysed in terms of the nature and specifics of the business, can lead to the systematization of problems related to the ability to generate cash in the specific industries in which companies operate.

Complete information on cash flows for a given period is obtained from the statement, which indicates the company's ability to generate inflows and outflows in three areas of activity: operating, investing, and financing. An alternative to measuring this ability is a model based on free cash flow (FCF), which allows for the measurement of a company's financial stability and growth. Unlike accounting profit, which can be susceptible

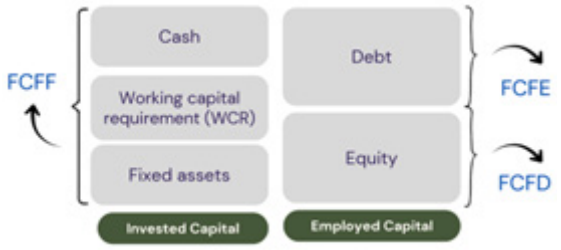

Fig. 1. Free cash flow model. Source: Own study
Rys. 1. Model wolnych przepływów pieniężnych. Źródło: Opracowanie własne

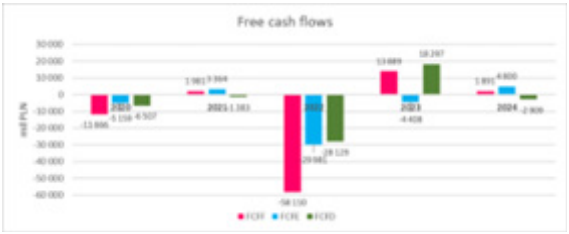

Fig. 2. FCF trends in Orlen Group in 2020–2024. Source: Own study
Rys. 2. Trendy FCF w Grupie Orlen w latach 2020–2024. Źródło: Opracowanie własne

to creative accounting, free cash flow is much more difficult to manipulate [3]. It allows for an in-depth assessment of liquidity and financial profitability, as well as the complex flow of cash both inside and outside the organization. It is an indicator of the company's actual ability to generate cash after covering all operating expenses and capital expenditures [4], providing a reliable reflection of the company's actual financial situation.

In practice, there are two most common approaches to estimating free cash flows [5]:

1. FCFF (free cash flow to firm) – cash flows attributable to all financing parties, determined using equation 1:

FCFF=EBIT x (1-T)+Depreciation & Amortization-Δ Working capital requirement-Net capital expenditure (1)

and

2. FCFE (free cash flow to equity) – cash flows attributable to owners, estimated using equation 2:

FCFE=Net income+Depreciation & Amortization-Δ Working capital requirement-Net capital expenditure+New debt issued - Debt repayments (2)

The model based on cash flows attributable to all parties financing the company's operations (FCFF) allows the total value of the company (equity + debt) to be determined for both owners and creditors. FCFE, in turn, allows for the calculation of cash flows for owners from equity capital that is available to them after taking into account expenses, capital expenditures, and liabilities. According to [6], the FCFE method is one of the basic sources of management approaches and assessments from the perspective of potential investors. For a more detailed analysis of cash flows and to identify individual financing parties, it is possible to divide FCFF cash flows into two groups:

- FCFE (free cash flow to equity) – cash flows for owners,
- FCFD (free cash flow to debt) – cash flows for capital providers.

The introduction of a new category allowing the determination of cash flows for capital providers (FCFD) makes it possible to estimate the interest on loans that the company must pay, plus the repayment of instalments (equation 3).

FCFD=Interests x (1-T)-New debt issued+ Debt repayments (3)

The mutual relationship between FCFE, FCFD, and FCFF, as well as their links to individual balance sheet items, is presented in Figure 1.

Free cash flows for firm are based on assets, cash flows for owners are related to equity, while cash flows for debt capital providers are related to debt capital. The above measures, constructed on the basis of data contained in the entity's financial statements, are among the basic ones that allow for the creation of a control system whose main task is to assess the company's development opportunities and warn against situations that could threaten the continuation of its operations.

FREE CASH FLOW AS A MEASURE REFLECTING THE COMPANY'S ABILITY TO GENERATE CASH

This section verifies cash flows for stakeholders using the example of a selected company in Poland. Elements of financial statements such as the balance sheet and income statement of the Orlen Group were examined empirically. The research methodology, combining the accrual and cash methods, allowed for an analysis of the company's ability to generate cash flows and maintain its cash balance in the years 2020–2024. The starting point for the analysis was the conversion of the company's classic accounting balance sheets for each year of the analysis into their management form (Table 1), which is a more useful tool for measuring the relationship between operational and investment decisions and their financial con-

Tab. 1. Managerial balance sheet of Orlen Group (mil PLN)

Tab. 1. Bilans zarządczy Grupy Orlen (w mln zł)

	2020	2021	2022	2023	2024
Cash	1 680	4 045	24 815	15 899	12 585
Working Capital Requirement (WCR)	5 906	6 279	22 071	5 486	1 199
Net Fixed Assets	59 433	68 706	153 117	181 265	186 761
Invested Capital (IC)	67 019	79 030	200 003	202 650	200 545
Debt	22 366	24 547	54 965	39 278	42 514
Provisions	2 264	1 905	8 079	9 952	11 342
Owner's equity	42 389	52 578	136 959	153 420	146 689
Employed Capital (EC)	67 019	79 030	200 003	202 650	200 545

sequences [7,5]. Next, the cash flows typical for each interest group, i.e., FCFF, FCFE, and FCFD, were verified, and their values were determined and presented in Figure 2, showing the trends in their changes.

When analysing the Orlen Group's results for 2020–2024, it should be noted that the demonstrated ability to generate operating profits at the EBIT level from assets did not translate clearly into the ability to generate cash flows defined as FCFF. Therefore, the profitability of the business did not translate clearly into liquidity. In each of the years analysed, the Orlen Group showed solid operating profitability, which was periodically insufficient to generate a cash surplus. When comparing the effectiveness of FCFF cash, it is worth analysing its distribution between FCFD debt repayment and potential FCFE payments to the owner, e.g., in the form of dividends. According to Figure 2, a stable policy of maintaining cash flows between decision-making areas was in place in 2021 and 2024 – FCFF flows generated from assets were sufficient to cover FCFD debt repayment, and the remainder was transferred to the owner in the form of FCFE. The only exception is 2023, when the generated FCFF flows of PLN 13,889 million were not sufficient to cover the debt repayment (FCD) of PLN 18,297 million. As a result, the FCFE balance for the owner amounted to PLN -4,408 million, and this was the only situation in which operational efficiency and the ability to generate cash from assets did not translate into a cash balance for the owner.

In the other years (2020 and 2022), there is a lack of ability to generate cash from assets and equity. This is offset by a decrease in cash reported in the management balance sheet, which shows a decrease in this item in invested capital, reflecting adjusted assets. The free cash flow structure for capital providers reflects the company's moderate level of debt, which is raised to maintain financial balance. In 2020-2024, the value generated for banks and financing institutions in connection with obtaining loans and servicing debt amounted to a total of PLN 38,928 million, with the highest value of debt granted observed in 2022, amounting to PLN 28,129 million.

Based on the presented analyses in the area of creating a specific cash balance in the area of financial stability and liquidity, an attempt was made to identify the main determinants influencing the formation of total cash flows for all parties financing FCFF in individual years of the analysis in 2020-2024 for the Orlen Group (Fig. 3-7). Free cash flows for all parties financing FCFF activities reflect the cash efficiency of the Orlen Group's assets. The manner in which individual components influenced the final result of the calculated indicators is marked as follows: green – factors generating an increase in FCFF flows, red – factors influencing a decrease in FCFF, and pink – the total value of FCFF in a given year.

In 2020, EBIT profitability after tax, supported by the favourable impact of depreciation and amortization, a reduction in net working capital requirements, and provisions created, was not reflected in the level of cash generated for the company. In 2020, the company is spending more cash than it is generating. However, it should be noted that this was the beginning of the Covid-19 pandemic, which not only left its mark on the international economy, but also had an impact on the Polish reality. The pandemic disrupted the oil markets, initially contributing to a decline in demand for oil, leading to a drop in its prices and, consequently, a decline in demand and sales prices for Orlen Group products. This resulted in a PLN 2,631 million decrease in WCR (which had a positive effect on FCF from a cash generation perspective) due to a decline in the value of inventories, trade receivables, and trade liabilities resulting from lower purchases of crude oil and commodities and lower prices on the markets. However, the negative cash flows this year were mainly influenced by investments in fixed assets, which involved capital expenditures of PLN 24,713 million. The activities undertaken in this area were correlated with an increase in the value of tangible fixed assets and intangible assets, mainly in connection with the acquisition of control over the fixed assets of the Energa Group (acquisition transaction finalized on April 30, 2020).

In 2021, the Orlen Group is regaining some stability in cash flow generation after a difficult economic year in 2020, generating cash flows of PLN 1,981 million. The operating profitability of assets, based on EBIT, increased almost threefold (year-over-year) and correlates with the ability to generate cash from assets (FCFF). In addition to operating profits, stable depreciation and amortization charges were a source of FCFF cash flows. On the other hand, the following factors had a negative impact: an increase in net working capital requirements by PLN 373 million, capital expenditures of PLN 14,614 million, and the release of provisions, which may indicate cash outflows related to the materialization of liabilities for which they were created in previous periods.

In 2022, negative FCFF were again recorded, with the lowest value in the analysis period amounting to PLN -58,110 million. This was mainly due to very high CAPEX invest-

Fig. 3. FCFF in 2020 in Orlen Group. Source: Own study

Rys. 3. FCFF w 2020 r. w Grupie Orlen. Źródło: Opracowanie własne

Fig. 4. FCFF in 2021 in Orlen Group. Source: Own study

Rys. 4. FCFF w 2021 roku w Grupie Orlen. Źródło: Opracowanie własne

ments of PLN 91,327 million and an increase in net working capital requirements by PLN 15,792 million. On the one hand, 2022 was the year of the acquisition of PGNiG company and finalization of the merger with the Lotos Group, and on the other, the start of a full-scale armed conflict between Ukraine and Russia. The macroeconomic situation was therefore not optimal for business development at that time. Both of these external factors had an impact on the business results of the current Orlen Group. The nearly threefold increase in operating profit and, consequently, the increase in operating profitability, as well as the increase in WCR, were caused by the rise in prices of basic raw materials and electricity, among other things, as a result of the ongoing war between Ukraine and Russia. The sixfold increase in capital expenditure (year-over-year) was primarily correlated with the acquisition of control over the fixed assets of the former Lotos Group and the PGNiG. This area was also affected by development and modernization investments related to the expansion of production capacity and the modernization and expansion of existing distribution networks. Negative FCFF can be considered a warning sign—although short-term negative FCF may be acceptable, especially for a company that invests in future development, a prolonged continuation of this trend, without monitoring financial performance, can lead to serious liquidity problems.

The year 2023 brought renewed stabilization of financial results to the Orlen Group, creating a kind of sine wave in the selected analysis period. The highest level of cash generated from assets was recorded at that time, amounting to PLN 13,889 million. The only negative factor was capital expenditure in the amount of PLN 42,341 million. FCFF was positively affected by operating profitability, represented by EBIT (despite a year-on-year decline in EBIT after tax of approximately 30%), depreciation and amortization, the creation of provisions (provisions for future expenses, although costly, have a positive impact on FCFF) and a fourfold reduction in WCR. The PLN 16,585 million decrease in WCR had a positive effect on FCF, freeing up cash from this area (positive effect of working capital reduction). This was mainly due to a significant reduction in inventory balances and a moderate decrease in trade payables, mainly as a result of lower oil and gas prices on the European market.

In 2024, EBIT profitability, supported by stable depreciation and amortization charges, positive cash flow from reduced net working capital requirements, together with an adjustment to the result for the level of provisions created, remained positive, although slightly lower than in the previous year, in terms of FCFF cash generated, even with ongoing investments amounting to PLN 19,510 million. The company therefore generates more cash than it needs to cover its current operations and investments. The FCFF analysis for 2024 points to another important issue: the enormous importance of effective inventory and receivables management in the context of the company's cash flows. The reduction in inventories and receivables, caused mainly by a decline in gas volume and average price, as well as a drop in the prices of refinery and petrochemical products on the European market, freed up cash from operations, which contributed to the generation of a financial surplus in 2024.

Due to the fact that the goal of every company is profitability, i.e. generating profit, but listed companies, such as the Orlen Group, also aim to increase their financial valuation through market capitalization growth, the analysis was enriched with the use of the FCF yield index. The FCF yield ratio takes into account both the level of cash generated and market capitalization, thus reflecting the market efficiency of the company. The development of the ratio along with the trend line over the five years of the analysis is presented in Figure 8.

The FCF yield recorded positive values in 2021, 2023, and 2024, i.e., when the company generated a cash surplus. This means that each PLN invested in the company's shares in those years generates PLN 0.06, PLN 0.18 and PLN 0.035 in free cash flow, respectively. During this time, the company effectively generated a capital surplus, which was a positive signal indicating an attractive investment opportunity, the cash surplus not only allows the company to meet all its obli-

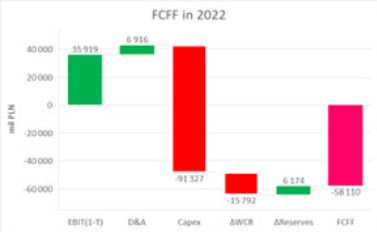

Fig. 5. FCFF in 2022 in Orlen Group. Source: Own study

Rys. 5. FCFF w 2022 roku w Grupie Orlen. Źródło: Opracowanie własne

Fig. 6. FCFF in 2023 in Orlen Group. Source: Own study

Rys. 6. FCFF w 2023 roku w Grupie Orlen. Źródło: Opracowanie własne

gations, but also ensures a return on investment for investors. In 2020 and 2022, the negative ratio results from the fact that the company did not generate a free cash surplus. This is a typical situation for companies that invest significant funds in their operations through capital expenditures and therefore have limited capital. Although it is sufficient to maintain operations, it may have been impossible to repay debt or pay dividends to investors at that time, which may have made the company less attractive as an investment. It should be mentioned that the negative cash flows in 2020 and 2022 were mainly influenced by three large purchase investments: in 2020, it was the acquisition of the Energa Group, and in 2022, the finalization of the merger with the Lotos Group and PGNiG, which forced an increase in capital expenditures. In addition, the macroeconomic situation is not without significance in this case: 2020 is the beginning of the Covid-19 pandemic, and 2022 is a full-scale armed conflict in Eastern Europe. Both of these cases significantly disrupted the markets, including the oil market, affecting its prices and demand, and thus determining the business results of the Orlen Group and its ability to generate financial surplus during that time. It is also worth mentioning that the Orlen Group is currently one of the largest listed companies in Poland in terms of market capitalization, and the higher the capitalization, the greater the possibility of dilution of the FCF rate of return, which is reflected in a lower value of the indicator.

CONCLUSION

The analysis of the financial performance of a selected fuel and energy company included an analysis of financial benefits in relation to capital expenditures, which were the basis for measuring operating profitability. At the same time, it was analysed whether operating profitability translates into the ability to generate cash surpluses understood as free cash flow (FCF).

The analysis of the Orlen Group's results for 2020–2024 showed that the company generated operating profitability in each year of the analysis, but there is no clear correlation between the ability to generate operating profits and the ability to generate free cash flow. The company generated more cash than it needed to cover its current operations and investments in 2021, 2023, and 2024, giving the company a certain degree of financial flexibility. These generated funds were used to repay debt (2023) and pay dividends. In the remaining years, i.e., 2020 and 2022, the Group spent more cash than it generated. The years 2020 and 2022 were a time of difficult and uncertain economic conditions caused by the Covid-19 pandemic and the war in Ukraine, which triggered changes in the crude oil market. For the Orlen Group, oil is a key resource for its refining operations, hence the impact of these changes on the Group's lower financial performance during this period. Analyses of various business cases indicate that in times of crisis, companies' development opportunities are limited, which determines a defensive strategy with the prospect of stagnation. Generally, in volatile and unpredictable conditions, companies adopt a conservative financial strategy prioritizing liquidity and security, with a chance of surviving in the market. In the case of the Orlen Group, even in the most difficult years, i.e., 2020 and 2022, it maintained an active investment policy implemented through, for example, the acquisition of the Energa Group, PGNiG, the merger with the Lotos Group, but also through ongoing investments, e.g., in energy transformation (wind farms, SMR, energy storage), the modernization of distribution networks, and the development of hydrogen technologies. From one side, the Orlen Group's investment strategy for 2020-2024 shows the company's ambitious development plans, which are necessary to stay competitive and expand the business, reflecting the management board's strategic decisions about the company's future. On the other hand, the investments made may significantly affect current FCF, generating cash outflows and acting as a brake on FCF. However, in the longer term, well-considered investments should result in increased revenues and profits, and thus an increase in FCF. The key to success is to find a middle ground between current capital expenditures and maintaining a healthy level of FCF to prevent serious liquidity problems.

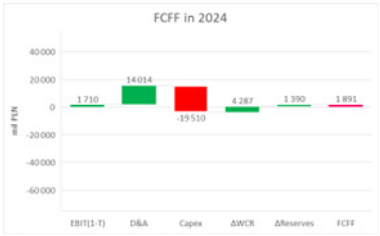

Fig. 7. FCFF in 2024 in Orlen Group. Source: Own study

Rys. 7. FCFF w 2024 roku w Grupie Orlen. Źródło: Opracowanie własne

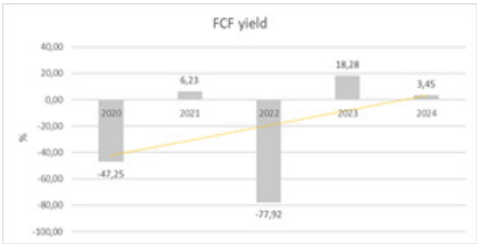

Fig. 8. FCFF yield in Orlen Group in 2020–2024. Source: Own study

Rys. 8. Wydajność FCFF w Grupie Orlen w latach 2020–2024. Źródło: Opracowanie własne

The issue of net working capital management, which reflects the dynamics of short-term assets and liabilities, showing how a company manages its current liquidity, is also important. The analysis of changes in working capital is particularly important in industries characterized by long operating cycles. It allows for a deeper understanding of the company's actual liquidity situation and its ability to effectively manage its financial resources, thus determining its ability to generate cash from current assets.

Building the company's potential to generate positive and growing cash flows in the long term is a complex and long-term process. In the current market conditions, it represents both an opportunity and a challenge for managers in the fuel and energy industry, which is on the verge of an energy transition. In a long-term strategy, taking free cash flows into account and forecasting them will make it possible to assess the creation of economic value of the company based on discounted cash flow.

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Analiza funkcjonowania wybranego przedsiębiorstwa w kontekście jego efektywności finansowej

Celem artykułu jest ocena efektowności finansowej funkcjonowania wybranego przedsiębiorstwa przemysłowego – Grupy Orlen. Przyjęta metodologia badawcza, oparta na pomiarze i analizie wolnych przepływów pieniężnych FCF, łącząca ujmowanie memoriałowe i kasowe, pozwoliła na analizę zdolności do generowania przepływów pieniężnych i utrzymania stabilności gotówkowej w latach 2020–2024. W badaniu wykorzystano dane finansowe pochodzące ze sprawozdań finansowych firmy. W artykule zwrócono uwagę na główne czynniki kształtujące przepływy pieniężne w podstawowych obszarach decyzyjnych. Pytania badawcze, postawione w niniejszym artykule dotyczą przede wszystkim tego czy wybrane przedsiębiorstwo generuje wystarczające środki na pokrycie bieżących wydatków oraz czy jest w stanie finansować przyszłe inwestycje, niezbędne do dalszego rozwoju i ekspansji. Analiza wykazała, że w obliczu rosnących wyzwań rynkowych Grupa Orlen utrzymuje przyjętą strategię rozwoju i ekspansji biznesu, co może świadczyć o jej efektywności finansowej. W wyniku dokonanych badań stwierdzono, że rentowność operacyjna Grupy Orlen, przekłada się na zdolność do generowania nadwyżki finansowej w latach 2021, 2023 oraz 2024, co wpływa na stabilizację płynności finansowej Grupy. W czasie niepewnych warunków gospodarczych przypadających na rok 2020 oraz 2022, firma wygenerowała ujemne przepływy pieniężne dla firmy. Czynników ryzyka, które wpłynęły na wyniki biznesowe prowadzonej działalności Grupy można upatrywać w dwóch obszarach: sytuacji makroekonomicznej, wpływającej na zmienność cen surowców zwłaszcza ropy naftowej i gazu oraz wysokich inwestycjach ukierunkowanych na stworzenie przyszłych strumieni przychodów. Chociaż ujemny FCFF może być sygnałem ostrzegawczym o niestabilności finansowej, w tym konkretnym przypadku jawi się jako tymczasowy i niezbędny element długoterminowej strategii wzrostu, opartej na proaktywnej strategii CAPEX, strategii, która wydaje się przynosić pożądane efekty, obserwując rosnącą kapitalizację rynkową firmy.

Słowa kluczowe: *efektywność finansowa, przepływy pieniężne, wolne przepływy pieniężne (FCF), płynność finansowa*