ASEJ ISSN: 2543-9103 ISSN: 2543-411X (online)

ESG as an integrative element influencing the value of mergers and acquisitions

Joanna Toborek-Mazur[1], Viktor Krykavskyy[2]

[1]Department of Accounting, Cracow University of Economics
Poland

[2]University of Business and Law
Ukraine

***Abstract*— The article highlights the role of ESG in decision-making regarding mergers and acquisitions. An analysis of the environmental, social, and governance (ESG) factors revealed that their integration significantly changes the traditional approach to pricing. By incorporating them, companies with high ESG ratings receive a premium due to reduced regulatory risk, greater attractiveness to institutional investors, and the potential to generate sustainable operational synergies. The author also presents mechanisms through which sustainable mergers can become a tool for sector transformation and a source of strategic advantage.**

Keywords— mergers and acquisitions, ESG, business combination, value creation, due diligence

I. INTRODUCTION

The mergers and acquisitions market has undergone a significant transformation in recent years, driven not only by economic and technological changes but primarily by the growing importance of environmental, social, and governance (ESG) factors. Traditionally, M&A transactions are assessed primarily through the lens of financial value, anticipated operational, cost, and revenue synergies, and strategic alignment between entities. However, regulatory pressure from the European Union, changing expectations among institutional investors, and growing awareness of climate risks are making ESG considerations an integral element of transactional decisions within M&As. In a growing number of sectors—particularly high-emissions sectors such as energy, transportation, and heavy industry—compliance with ESG criteria is becoming a determining factor in both valuation and merger completion (Toborek-Mazur, 2010, p. 98).

Companies that fail to meet ESG standards become a burden for investors, generating reputational, legal, and financial risks, including an increased cost of capital and a discount in transaction valuations. On the other hand, companies with high ESG compliance and transparent reporting policies are more likely to earn investment premiums, attract long-term capital, and become more desirable acquisition targets.

Thus, M&A strategy is beginning to serve a dual purpose: not only expansionary or consolidation, but also transformational. Companies in high-emission sectors are increasingly acquiring entities with "green" business profiles (e.g., renewable energy companies, companies implementing low-emission technologies, or environmental service providers) to accelerate their own decarbonization and adapt to the requirements of climate policies. This phenomenon is referred to as transformational M&A and represents the market's response to regulatory and societal expectations regarding climate neutrality (Świetla, Toborek-Mazur, 2021).

Despite the growing importance of ESG in the literature, there is still a lack of comprehensive analyses assessing the relationship between ESG compliance and transaction valuation, risk levels, and the real value generated after an acquisition. Previous publications typically focus on the impact of ESG on a company's financial performance or investment perception, omitting the transactional perspective and the specifics of industries with a high carbon footprint. The article addresses this research gap by examining whether, and to what extent, ESG factors influence the value and effectiveness of

ASEJ - Scientific Journal of Bielsko-Biala School of Finance and Law
Volume 29, No 4 (2025), pages 6
https://doi.org/10.19192/wfsip.sj4.2025.18
Received: September 2025, Accepted: December 2025, Published: December 2025

M&A transactions, particularly where business model transformation is required (Toborek-Mazur, 2022).

Author argues that ESG factors are an increasingly important component of the valuation and due diligence process, and their integration into transaction strategy can generate long-term added value and mitigate regulatory and reputational risks. Simultaneously, we analyze cases in which non-compliance with ESG leads to a reduction in transaction value, generating a so-called "brown asset" discount. The aim of this article is not only to demonstrate the role of ESG in M&A processes but also to identify mechanisms through which sustainable acquisitions can become a tool for sector transformation and a source of strategic advantage.

II. SOURCE LITERATURE REVIEW AND LANGUAGE CONSIDERATIONS OF M&A

Although the processes of mergers and acquisitions are known all over the world, their main assumptions, pedigree and development fall in the English-speaking countries, therefore most studies on this subject have been written in this language. The most common and global term for mergers and acquisitions in the literature is abbreviated as "M&A" (mergers and acquisitions) (Helin, Zorde, Bernaziuk, Kowalski, p. 33, 2022).

The integration of ESG factors into mergers and acquisitions stems from two research streams: the sustainable finance literature and traditional M&A theory. In classic transaction models, the value of an acquisition stems primarily from expected cost and revenue synergies, advantages of scale, access to new markets, and increased managerial efficiency. Research from the 1990s and early 2000s focused primarily on financial aspects and agency theory, assuming that key determinants of transaction success stem from operational fit and proper post-valuation integration (Partacz, 2022).

Literature on sustainable finance indicates that environmental, social, and governance factors directly impact corporate value and long-term risk. Empirical studies have shown that high ESG compliance can lead to a lower cost of capital by reducing legal, regulatory, and reputational risks, as well as through increased reporting transparency and better risk control in supply chains. At the same time, companies with low ESG compliance are more likely to face external costs resulting from emissions, resource consumption, social disputes, or management inefficiencies, which is reflected in investment discounts and higher earnings volatility (Toborek-Mazur & Partacz, 2022a).

Integration of these two research streams has led to the emergence of a new area of analysis: ESG in the context of M&A transactions. This literature has been developing rapidly since the mid-2010s, particularly following the introduction of EU regulations focused on sustainable finance. Researchers indicate that ESG is becoming an element of early acquisition target selection, a fundamental component of the due diligence process, and a factor determining the financing structure of transactions. In high-emission sectors such as energy, chemicals, and transportation, the assessment of environmental risks and compliance with climate regulations is beginning to play an equal role to financial indicators (Lim, Mitsi, p. 61, 2025).

Literature also emphasizes that M&A transactions can serve as a tool for transforming the acquirer's business model. Their goal is not merely to acquire assets but to accelerate the company's adaptation to climate policy requirements, social norms, and corporate governance standards. In this perspective, ESG-compliant assets represent not only a source of economic value but also a strategic resource enabling the company to build resilience to the risks associated with the energy transition and EU regulations.

At the same time, some authors point to risks associated with integrating ESG into M&A processes. These include information asymmetry in non-financial reporting, the risk of greenwashing, limited comparability of ESG ratings, and the lack of standardized methods for assessing environmental impact. This leads to an imbalance in which companies may declare ambitious ESG goals in M&A transactions, but in practice communicate them solely for the sake of image, as they will be unable to achieve them (Bu et al., 2024). Transactions in high-emission sectors may also pose structural risks, involving the acquisition of underperforming assets that require significant capital expenditures to meet climate requirements, which can reduce short-term shareholder value (DePhamphilis, p. 145, 2017).

In the context of energy security, it is important to note that sustainable M&A transactions can contribute to diversifying the energy mix, decentralizing production, and increasing the energy system's resilience to geopolitical and price shocks. Acquisitions of renewable energy assets, technology companies, and energy storage companies are a tool for strengthening supply security, which is consistent with both EU policy objectives and the expectations of investors and regulators.

In summary, the literature demonstrates the growing role of ESG as a driver of valuation, target selection, and the assessment of the long-term value of M&A transactions, while also highlighting the methodological and regulatory risks associated with measuring ESG compliance. This analysis provides a foundation for further empirical research on the impact of ESG on transaction outcomes in high-carbon sectors and for assessing whether ESG can act as a strategic catalyst for transformation.

In this context, M&A becomes a tool not only for market consolidation but also for integrating resources that enable efficiency gains throughout the enterprise value chain. Acquisitions of entities offering low-emission technologies, innovative energy management systems, or process automation solutions can contribute to sustainable reductions in operating costs, increased stability of energy supply, and reduced dependence on fossil fuels. Thus, operational efficiency bridges economic and environmental goals, indicating that ESG-compliant investments can be both financially viable and beneficial for the energy transition (Toborek-Mazur & Partacz, 2022b).

This type of integrative approach is particularly important in high-emission sectors, where business model transformation requires not only capital but also technological know-how, infrastructure changes, and the development of new management competencies. M&A transactions allow companies to acquire missing resources more quickly, shortening the time needed to achieve climate compliance, improve process efficiency, and increase energy resilience. As a result, operational efficiency becomes the common denominator that allows for linking ESG goals with the long-term value of transactions and the tangible results of economic transformation.

In the analysis of operational efficiency in sustainable enterprise management, key factors should be considered (Toborek-Mazur, Partacz, 2024):

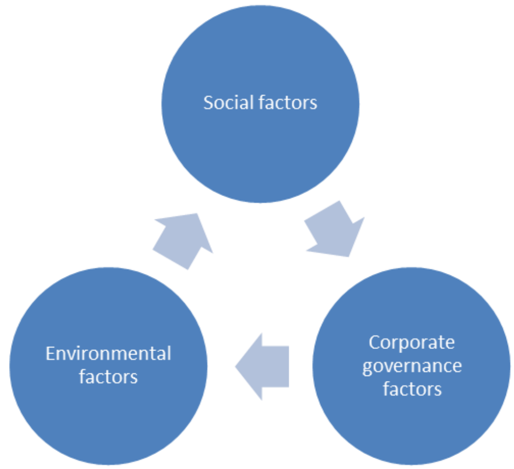
a. decarbonization and the gradual phase-out of coal;
b. the development of renewable energy sources;
c. modernization of the power grid to adapt to the changing operating conditions associated with renewable energy sources;
d. hydrogen investments;
e. the heating transformation.

It's worth emphasizing that the importance of M&A transactions focused on ESG compliance extends beyond the financial and regulatory perspectives, encompassing energy security. In the context of energy transition, diversification of energy sources, and reducing dependence on fossil fuels, acquisitions of entities developing renewable technologies, energy storage, low-emission hydrogen, and smart grids are becoming a tool for strengthening the economy's resilience to supply shocks. Integrating sustainable assets through M&A can accelerate the process of building stable and distributed energy generation systems, which is crucial in times of growing geopolitical tensions, fluctuating commodity prices, and climate policy requirements. Therefore, M&A transactions implemented with an ESG perspective should be viewed not only as an element of corporate strategy but also as an instrument for strengthening national energy security and the stability of the European energy market (Toborek-Mazur, Partacz, Surówka, 2022).

III. ESG IN DUE DILIGENCE PROCESS AND TRANSACTION VALUATION

Merger and acquisition processes require a comprehensive assessment of a potential transaction target, the primary tool of which is due diligence. Traditionally, this includes examining financial, legal, operational, and market aspects. Today, with the growing importance of environmental, social, and governance (ESG) factors, due diligence is gaining a new dimension, becoming an instrument that allows for the assessment not only of financial risk but also of strategic potential and regulatory compliance. Figure 1 illustrates the ESG factors that should be considered in the preparation and execution of an M&A process. A social component includes an analysis of relationships with employees, local communities, and stakeholders, as well as an assessment of policies regarding occupational health and safety, diversity, and human rights in the supply chain. Social risks can translate into negative reputational impact or operational disruptions following an acquisition. Assessing such aspects is especially important in international transactions, where social norms and regulations differ across countries.

FIGURE 1. ESG FACTORS



Source: author own studies.

Environmental due diligence primarily involves analyzing a company's carbon footprint, compliance with applicable climate regulations, energy efficiency, and potential liabilities resulting from environmental degradation. In high-emissions sectors such as energy, chemicals, or transportation, underestimating environmental risks can lead to significant post-acquisition costs, including the need to invest in low-emission technologies or regulatory penalties. In practice, environmental due diligence may include emissions audits, verification of environmental management systems, certification reviews, and an assessment of the supply chain's environmental impact.

Governance analysis encompasses the ownership structure, control mechanisms, compliance procedures, and reporting transparency. Due diligence examines, among other things, a company's compliance with regulations, anti-corruption policy, compliance with ESG reporting requirements, and risks arising from conflicts of interest. It's worth noting that a strong governance system reduces both legal and financial risk and increases investor confidence and the potential transaction valuation. Integrating these ESG factors into the acquisition valuation process changes the traditional approach to pricing.

Companies with high ESG ratings often receive a premium due to lower regulatory risk, greater attractiveness to institutional investors, and the potential to generate sustainable operational synergies. Conversely, companies that do not adhere to ESG standards may be discounted ("brown assets"), reflecting environmental, social, and reputational risks. In practice, this means that transaction valuation considers not only current cash flows but also potential transformation costs, capital expenditures, and regulatory risks (Korpus, 2014, p. 83).

The decision-making process in M&A transactions increasingly incorporates ESG not as an optional element but as an integral part of corporate strategy. This means that ESG analysis can determine the selection of acquisition targets, the financing structure, the integration timeline, and the operational transformation plan. In sectors with high emissions risk, ESG integration not only allows for risk mitigation but also accelerates technological modernization processes, increases operational efficiency, and strengthens a company's energy security.

TABLE 1 PRESENTS THE CLASSIFICATION OF ESG FACTORS IN TRANSACTION DUE DILIGENCE.

esg factor	area of analysis	example indicators
Environmental	CARBON FOOTPRINT, ENERGY CONSUMPTION, EMISSIONS, WASTE MANAGEMENT, ENVIRONMENTAL COMPLIANCE	GREENHOUSE GAS EMISSIONS AUDIT PLANT ENERGY EFFICIENCY ISO CERTIFICATION
social	EMPLOYEES, LOCAL COMMUNITIES, HUMAN RIGHTS, OCCUPATIONAL SAFETY	Occupational Health and Safety Policy and Accident Reports Employee Conflict Analysis Labor Standards Compliance Audit
governance	OWNERSHIP STRUCTURE, COMPLIANCE, REPORTING, LEGAL RISKS	ANTI-CORRUPTION POLICY INTERNAL CONTROL SYSTEM COMPLIANCE WITH NATIONAL AND EU REGULATIONS

Source: author own studies.

IV. M&A AS A TOOL FOR IMPROVING OPERATIONAL EFFICIENCY AND DECARBONIZATION

Modern M&A transactions increasingly go beyond traditional consolidation or expansion, becoming instruments for strategic and operational transformation of companies. In the context of sustainable development and growing ESG regulatory pressures, these transactions are referred to as transformational M&A – meaning that the goal of the acquisition is not only to acquire assets, customers, or technology, but also to accelerate the business's adaptation to environmental, social, and regulatory requirements (Toborek-Mazur, Wójcik-Jurkiewicz, 2022).

M&A allows companies to implement operational improvements that align with the principles of sustainable development. Acquisitions of companies with innovative technological solutions, such as process automation systems, smart grids, or low-emission technologies, enable reduced operating costs, increased production efficiency, and optimized energy consumption. Companies can simultaneously achieve financial and environmental goals, increasing the added value of the transaction in the long term.

In high-emission sectors such as energy and heavy industry, transformational M&A is becoming a tool for diversifying energy sources and strengthening energy security. Acquisitions of renewable energy assets, energy storage facilities, or companies developing low-emission technologies allow companies to more quickly achieve climate neutrality goals, reduce dependence on fossil fuels, and increase resilience to market and geopolitical fluctuations. From this perspective, M&A is not merely a financial transaction but rather a component of a broader corporate transformation strategy (Świetrza, Toborek-Mazur, 2020).

M&A also generates strategic synergies beyond typical cost and revenue benefits. Integrating ESG-compliant entities can reduce regulatory and reputational risks, accelerate the implementation of new technologies, and enable better supply chain management.

Empirical research and case studies indicate that the success of this type of transaction depends on (Toborek-Mazur, Partacz, 2024):

a. a clear link between ESG objectives and business goals;
b. integration of operational and management teams;
c. transparency in the reporting process and progress monitoring;
d. adequate financial support for the implementation of transformation projects.

Inadequate preparation or a lack of a coherent strategy can result in delays in decarbonization, uneven operational efficiency, and lower transaction value for shareholders.

V. ANALYSIS OF THE ESG IN M&A DEALS

Given the growing importance of ESG factors in transaction decisions, empirical analysis allows us to assess the extent to which ESG compliance impacts the valuation, financing structure, and performance of M&A transactions. The research covers transactions in high-carbon sectors (energy, industry, transportation) in the period 2022-2024 in Europe, the United States, and Poland, taking into account both strategic acquisitions and private equity investments.

Market data analysis indicates that companies with high ESG ratings achieve a valuation premium of 5–15% compared to those with low ESG compliance. The discount for companies that do not comply with ESG standards ("brown assets") is primarily due to regulatory risk, transformation costs, and potential reputational damage. These results confirm that ESG is no longer merely a compliance tool but is becoming a critical factor in transaction valuation.

Case studies show that integrating ESG-compliant entities into the M&A process leads to improved operational efficiency, measured in terms of, among other things, reduced energy consumption, lower operating costs, and increased supply stability. Acquisitions of companies offering low-emission technologies or process automation systems accelerate the energy transformation of enterprises, which translates into greater resilience to commodity price fluctuations and geopolitical risks.

The analysis shows that M&A transactions focused on ESG integration generate transformative synergies that are not captured by traditional valuation models. These include:

a. increased energy efficiency and emissions reduction,
b. improved reputation and investor relations,
c. increased attractiveness to institutional capital,

d. enhanced energy security and supply chain resilience.

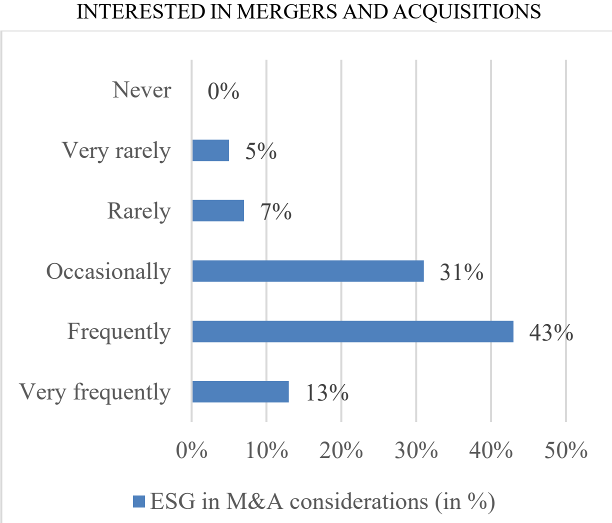
These effects translate into higher long-term transaction value, as evidenced by examples of energy companies in Europe that, through the acquisition of renewable energy assets, accelerated decarbonization and improved operational performance. According to KPMG research ("Global ESG Due Diligence+ study 2024"), 80% of investors declare that ESG is a significant element in M&A transactions, and over half plan to conduct ESG due diligence for most planned transactions within 24 months. It is emphasized that ESG due diligence not only identifies risks but also creates added value by optimizing costs, increasing operational efficiency, and enhancing the company's reputation.

In the study, "The effect of mergers and acquisitions on ESG performance and market value: Evidence from EU acquirers," the authors analyze 100 M&A transactions in Europe (2003–2017). They show that acquirers of companies with lower ESG performance can increase their own ESG ratings after acquiring entities with better ESG performance; additionally, the improved ESG rating of the acquirer is positively perceived by the market, which can translate into an increase in market value (Tampakoudis & Anagnostopoulou, 2020).

A theoretical and empirical study of 1,201 companies (in the article "The Role of Environmental, Social, and Governance Factors in Shaping Merger and Acquisition Success...") indicates that ESG is a strong strategic factor in M&A, and "green" deals in sectors such as energy tend to command a price premium—which may be due to investors' belief in the long-term value of ESG (Lung, 2025).

Based on research conducted by Deloitte in 2022 on a group of 250 transactions, it appears that ESG is a subject of discussion and consideration during planned M&A transactions.

CHART 1. ESG IN THE CONSIDERATIONS OF COMPANIES INTERESTED IN MERGERS AND ACQUISITIONS



Source: author own studies based on Deloitte "ESG in M&A pulse survey: ESG's evolving role in corporate M&A decision-making".

Research shows that ESG implementation is a frequent consideration in planned merger and acquisition transactions. Over half of companies reported at least frequent ESG analysis. Only less than one in ten companies perform this analysis rarely or very rarely. The results indicate that environmental, social, and governance factors have a real impact on the valuation and risk of acquired companies. This also indicates that investors are treating ESG as a significant element of due diligence and a decision-making criterion, recognizing the regulatory and financial pressures associated with this area. ESG is becoming not just an analytical adjunct but a strategic component of transaction analyses.

According to an EY report on Polish private equity funds, as many as 95% of surveyed PE funds that conduct ESG due diligence analyses claim that ESG assessments have a significant impact on their transaction processes (EY, 2025).

VI. CONCLUSIONS

Recent research, particularly from 2022-2024, indicates that ESG factors are playing an increasingly important role in mergers and acquisitions (M&A) processes, transcending traditional financial and operational aspects of transactions. Analysis of the theoretical literature indicates that ESG influences risk assessment, the cost of capital, and the long-term value of companies, particularly in high-carbon sectors. Integrating environmental, social, and governance aspects into due diligence and transaction valuation is becoming standard in M&A practice, as confirmed by advisory reports and empirical studies (KPMG, EY).

The ESG due diligence process enables early identification of risks and opportunities, including regulatory, operational, and reputational threats, while simultaneously enabling the development of transformational synergies. Transactions known as transformational M&A are becoming a tool for improving operational efficiency, accelerating energy transition, and strengthening energy security for enterprises. Integrating ESG-compliant entities into the operating model allows for cost reductions, increased efficiency, reduced emissions, and increased resilience to market fluctuations.

Empirical analysis confirms that ESG can influence the valuation premium and long-term value of deals and contribute to improving the ESG ratings of acquiring companies. At the same time, research shows that the relationship between ESG and valuation is not always linear - in some cases, a high ESG target may lead to a lower premium, driven by investor perceptions of transformation costs or ESG maturity.

Integrating ESG into M&A processes is not just a regulatory or marketing element, but a key tool for value creation and operational transformation. An ESG-based approach enables companies to align economic goals with sustainable development objectives and strengthens resilience to regulatory, market, and energy risks. The analysis results indicate that ESG should be an integral part of the M&A strategy, encompassing due diligence, valuation, the integration plan, and post-deal monitoring.

Consequently, taking ESG into account in merger and acquisition processes is not only an element of regulatory compliance, but also a strategic tool for increasing operational efficiency, long-term value and energy security, which is particularly important in the context of the transformation of the European and global economy towards sustainable development.

In summary, ESG in M&A transactions is no longer a mere supplement to traditional financial analyses; it is becoming a key element of corporate and investor strategies. Integrating environmental, social, and governance factors not only mitigates risks but, above all, creates sustainable operational and market value, contributing to the energy transition and strengthening companies' resilience to global challenges. In this context, the future of M&A will increasingly be linked to sustainable development, and the success of the transaction will largely depend on skillfully combining economic objectives with ESG requirements and a strategic vision.

The paper presents the result of Project no 062/ZIR/2024/POT financed from the subsidy granted to the Krakow University of Economics

VII. REFERENCES

https://ruomoplus.lib.uom.gr/bitstream/8000/1403/1/Revised%20Paper.pdf?utm_source=chatgpt.com

https://direct.ewa.pub/proceedings/aemps/article/view/23924?utm_source=chatgpt.com

https://www.ey.com/pl_pl/insights/strategy-transactions/jak-fundusze-private-equity-aktywne-w-polsce-podchodza-do-kwestii-esg-fy25-gc-fy25?utm_source=chatgpt.com

Raport Global ESG Due Diligence+ study 2024, https://kpmg.com/xx/en/our-insights/esg/global-esg-due-diligence-study-2024.html

Bu M., Liu X., Zhang B., Hazaea S., Fan R., Wang Z. (2024), Governance of Corporate Greenwashing through ESG Assurance, Systems, Business Innovation: From Management Systems to Corporate Social Responsibility, https://doi.org/10.3390/systems12090365

DePamphilis D. (2017), Mergers, Acquisitions and Other Restructuring Activities, Academic Press, San Diego.

Hellin A., Zorde K., Bernaziuk A., Kowalski R. (2022), Fuzje i przejęcia spółek kapitałowych: Zagadnienia rachunkowe i podatkowe, Wydanie 6, Wydawnictwo C.H. Beck, Warszawa.

Korpus J. (ed.) (2014), Fuzje i przejęcia, Wydawnictwo Profesjonalne PWN, Warszawa.

B. Lim, M. Mitsi (2025), Environmental, Social and Governance (ESG) Disputes: Litigation and Arbitration, Kluwer Law International, Alphen aan den Rijn.

B. Lung (2025) The Role of Environmental, Social, and Governance Factors in Shaping Merger and Acquisition Success and Driving Firm Value, Advances in Economics Management and Political Sciences 169(1): 10.54254/2754-1169/2025.MUR23924.

Toborek-Mazur J., Partacz K. (2024), Sustainable management in companies and green transition consequences based on the Polish energy sector in 2014-2024, ASEJ - Scientific Journal Bielsko Biała School of Finance and Law, Vol. 28 No 4 (2024), https://doi.org/10.19192/wsfip.sj4.2024.11

Partacz K. (2022), Prawonbilansowe uwarunkowania sprawozdawczości finansowej a jakość informacji pochodzących ze sprawozdania finansowego w czasie COVID-19, [in:] Mokrzycka-Kogut (ed.), Grabowska-Kaczmarczyk (ed.), Sprawozdawczość i rewizja finansowa. Kierunki zmian i wyzwania w czasach pandemii, Poltext, Warszawa.

Świetla K., Toborek -Mazur J. (2020), Motywy przejęć odwrotnych i zasady ich rozliczania, Zeszyty Teoretyczne Rachunkowości tom 108, nr 164, Warszawa, pp. 191 - 205.

Świetla K., Toborek- Mazur J. (2021), Verification of the Accuracy of Mergers and Acquisitions in Poland in 2012-2020, listopad 2021, International Business Information Management Association (IBIMA).

I. Tampakoudis, E. Anagnostopoulou (2020), The effect of mergers and acquisitions on ESG performance and market value: Evidence from EU acquirers, Business Strategy and The Enviornment, https://doi.org/10.1002/bse.2475

Toborek-Mazur J. (2010), Holding jako podmiot rachunkowości, Wolters Kluwer, Warszawa.

Toborek-Mazur J. (2022), Koncentracja kapitałowa w czasie COVID-19 w grupie kapitałowej Tauron [in:] Mokrzycka-Kogut (ed.), Grabowska-Kaczmarczyk (ed.), Sprawozdawczość i rewizja finansowa. Kierunki zmian i wyzwania w czasach pandemii, Poltext, Warszawa.

Toborek-Mazur J., Partacz K. (2022a), Ewaluacja efektu synergii w transakcjach fuzji I przejęć w czasie pandemii COVID-19, Zeszyty Teoretyczne Rachunkowości, Vol. 46, Nr 1, Warszawa, pp. 101-118.

Toborek-Mazur J., Partacz K. (2022b), Impact of the COVID-19 on creating business strategies in mergers and acquisitions, ASEJ - Scientific Journal Bielsko Biała School of Finance and Law, Vol. 26 No 1 (2022), Bielsko-Biała, pp. 25-32.

Toborek-Mazur, J.; Partacz, K.; Surówka, M. Energy Security as a Premise for Mergers and Acquisitions on the Example of the Multi-Energy Concern PKN Orlen in the Face of the Challenges of the 2020s. Energies 2022, 15, 5112. https://doi.org/10.3390/en15145112 (access date: 20.07.2022).

Toborek-Mazur, J.; Wójcik-Jurkiewicz, M. Multi-Energy Concern as an Example of the Implementation of Agenda 2030: Poland as a Case Study. Energies 2022, 15, 1669. https://doi.org/10.3390/en15051669 (access date: 20.07.2022).