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Factors Shaping the Future of Leasing in Poland. The Role of External Shocks, Regulations, and Emerging Technologies

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Abstract: This study aims to identify and evaluate the key trends in the leasing sector in Poland from the perspective of both the present situation and the coming years. The literature review and the conducted In-Depth Interviews among senior executives of leasing businesses in Poland and among representatives of the Polish Leasing Association enabled us to determine the following list of contemporary trends that are relevant to the leasing sector: the circular economy, the sharing economy and product-as-a-service, incidental and shock-related changes, digitalization, automation and robotization, as well as the development of the electric vehicle segment. Furthermore, many of these phenomena fit into the broader concept of so-called sustainable finance. All of the indicated trends were deemed as relevant by the experts. The leasing sector has not yet reached the maximum of its potential for market expansion in Poland.

Keywords: key trends, leasing, Poland
JEL Classification: O30, G32, M14

1 Introduction

Leasing constitutes a key source of funding for business investments in Poland, as evidenced by, *inter alia*, the fact that after 2017, the total value of active portfolios of leasing companies in Poland exceeded the value of investment loans granted to business entities. However, the leasing market is undergoing major transformations rooted in trends stimulated, on the one hand, by technological and regulatory changes and, on the other hand, by external shocks and macroeconomic circumstances that have significantly impacted the Polish economy over the last few years. Among the technological and regulatory changes, digitalization and automation of the economy play an important role, as does the growing importance of low-carbon technologies. These changes are reflected in the increased significance of the so-called sharing economy or, more and more frequently, in product/service bundling practices. External shocks and macroeconomic circumstances, in turn, which have recently affected the leasing activity in Poland include, in particular, the consequences of the COVID-19 pandemic and the aftermath of the Russian aggression against Ukraine. The macroeconomic situation, partially caused by the aforementioned shocks, is another

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factor that plays an important role in the development of leasing, including growing inflation and interest rates and, consequently, the rising cost of loans, which has a major impact on business investments.

With the above in mind, this study aims to identify and describe the key trends in the leasing sector from the perspective of both the present situation and the coming years. The study begins with an in-depth review of literature devoted to changes in the leasing sector in Poland and worldwide. The conducted analysis leads to the formulation of certain research hypotheses concerning trends regarding changes in the leasing sector, which are then verified based on results of individual in-depth interviews (IDIs) which, for the purposes of this study, were carried out among senior executives of leasing businesses in Poland and among representatives of the Polish Leasing Association. The subsequent subchapters discuss the research methods and results of the study, and an overall conclusion is included in the summary.

2 Literature review and hypotheses

The recent years have witnessed strong supply shocks with a substantial, but oftentimes varying, impact on the activities of business and the development of the Polish economy. The COVID-19 pandemic, on the one hand, resulted in a noticeable reduction of activity in certain sectors (catering, air transport, hospitality), and, on the other hand, created a huge demand for digital solutions and their increasingly widespread use not only in enterprises, but also among consumers.

The del Rio-Chanona et al. [2020] assumed that many sectors experienced supply-side problems, since the operation of essential industries was subject to regulatory restrictions and employees could not be employed at their previous workplaces due to the need for social distancing. The mechanism in question caused supply shocks triggered by the pandemic to lead to negative changes in the supply of labor.

Empirical results from a survey of companies [Gradzewicz, 2022] indicate that the changes in their financial performance are much longer lasting in response to supply shocks than to demand shocks. Shocks on the demand side cause a short-lived increase in production, market share, productivity, real wages and margins, as well as a growth of investments and employment over several periods. The responses of companies to supply shocks are qualitatively similar, albeit much longer lasting. Furthermore, the relative volatility of supply shocks is generally higher. For half of the companies, the volatility of demand shocks accounts for no more than 7.5% of sales volatility; meanwhile, for a significant part of companies (35%), the volatility of supply shocks exceeds 10% of sales volatility. Regression of supply shock volatility on sales volatility yields a higher multiplier, 1.39 (0.01), which suggests that supply shock volatility translates into sales volatility to a greater extent. It is worth noting, however, that research conducted on almost all Polish companies with nine or more employees found that supply shocks have no lasting impact on the level of total factor productivity (TFP), and therefore their sales and market share will return to the pre-shock levels. This suggests that the initial improvement in a company's efficiency disappears after 6 years, thus reducing its market share and sales.

Regarding supply shocks, Brinca et al. [2021] analyzed the sectoral impact of COVID-19 in the United States and demonstrated that during the initial peak of the crisis, in March and April 2020, two-third of the decline in the number of hours worked was due to supply shocks. A sectoral analysis of Eurozone countries' economies [European Central Bank, 2022] shows that between 2020 and 2021, supply shocks played a major role in "other services" (a category comprising leisure, repairs, personal services, hairdressing, etc.), but also had a significant influence in "trade, transportation and administrative services," given the magnitude of the shock. However, these supply shocks vary in how they translate into production trends in different sectors, which depends on their potential contribution to production (labor, capital, and TFP). Overall, the cumulative absolute supply shock in 2020–2021 was negative in most sectors, but was the most impactful in trade, transportation, and housing (which, however, experienced a very positive cumulative demand shock in the same period). Smaller shocks with similar symptoms occurred in industry, agriculture, and the construction, information, communication, and public services sectors. In contrast, the professional and administrative services, real estate, and financial sectors underwent a positive supply shock and a negative demand shock.

Furthermore, as shown by Radło and Sagan [2021], the pandemics-related shock has caused a change in companies' approach to the organization of value chains, which comprised, *inter alia*, a trend toward regionalizing chains and seeking to strengthen supply security. The current external shock, related to Russia's aggression against Ukraine, has resulted in a disruption of supply chains, which has exacerbated the previously observed rise in prices of energy resources and agricultural products. This, in turn, together with the delayed tightening of monetary policy and loose fiscal policy during the pandemic period yielded a substantial increase in inflation leading to higher interest rates as well as, consequently, the rising cost of external financing of business investments through bank loans [NBP, 2022]. These findings lead to hypothesis no. 1 [H1], whereby *the external shocks that have been affecting the Polish economy since 2020 have a notable impact on the operation of leasing companies. Both the effects of COVID-19 and the Russian aggression against Ukraine have led to major disruptions of supply chains, which significantly affected the structure of the demand for leasing. Meanwhile, the macroeconomic aftermath of external shocks, taking the form of slowed economic growth, rising inflation, and interest rates may cause a reduction in the demand for leasing*.

Another trend influencing the leasing market in Poland is the growing importance of the circular economy (CE) model, being a paradigm of business activity and the way the market functions, which to a great extent is a consequence of economic policy conditions and is related to the desire to limit the detrimental impact of the economy on the environment. These changes comprise, *inter alia*, the establishment of sustainability-related objectives, including the pursuit of increasing the sustainability of products, extending the life cycle of products, their reusability as well as the modernization, repair and regeneration thereof, and developing the product as a service. These changes are increasingly evident in the content of individual policies and thus in legislation [European Commission, 2020]. The CE encompasses all stages of product and service creation and use, from designing to consumption to recycling. Furthermore, it is based on three principles: elimination of waste and pollution, circular use of products and materials while preserving the maximum value thereof, and the regeneration of natural resources [Ellen MacArthur Foundation, n.d.]. The trend related to the development of CE is of key importance from the perspective of changes in the leasing market, since many such strategies directly or indirectly involve the use of leasing or create opportunities for leasing companies to enter new business areas. As pointed out by Koide et al. [2022], there are at least 10 CE strategies, including servitization, pooling, C2C sharing, rental, leasing, re-use, repair, modernization/modularization, renewal/regeneration, and durability. Many of these entail the development of product service systems (PSSs), employing various types of service/product bundling practices, which involve moving away from the sale of products to using them on sharing and leasing platforms, which contributes to extending the product life cycle by way of repair, modernization, re-use, and regeneration, and through replacing goods with services [Schmidt et al., 2015; Cruz Rios and Grau, 2020]. Funding aimed at supporting the transition to CE is not yet widespread and faces various types of barriers, including: lack of risk assessment methods for investments employing the CE model, lack of competence to evaluate investment projects in financial institutions, and higher capital allocation requirements [Dziobek and Kulczycka, 2019].

Summarizing the trend in question leads to hypothesis no. 2 [H2], which implies that *the development of the circular economy, including the sharing economy, and the emergence of the product-as-a-service model results in significant changes in the functioning of leasing companies both with regard to their offers for customers and extending the activities of these companies when joining circular economy processes*.

Another trend that affects leasing companies in Poland concerns automation and robotization, which can have a two-fold impact on the leasing market. Firstly, they change the structure of leased assets to a more advanced one, corresponding to the automated process of production and service provision, and secondly, they automate and digitize the transaction process itself. Digital technologies may be used at various stages of the transaction in the leasing market. In this context, particular attention should be paid to the development of such Fintech technologies as artificial intelligence (used in the sector to offer automated evaluation of financial capacity, to create more intuitive user interfaces and to better support customer interactions), virtual reality (which allows to provide purchasers of assets with exceptional

experiences in the course of visualizing and customizing the leased asset), or blockchain (enabling fast, precise transactions in a way that optimizes ecosystems and significantly reduces risk). Moreover, as far as available solutions are concerned, the use of big data may be mentioned, which in the case of financial and leasing companies should result in a better and more complete understanding of customers, competitors, markets, products, services, and channels.

With regard to digital initiatives, Najeeb Ghauri [2022], the Chairman of Netsol Technologies, stated that leasing was one form of financing that is particularly well suited to this type of venture. In his opinion, traditional lenders are less incentivized to offer financing due to regulatory requirements, and companies are turning to other financing models, among which asset finance and leasing are quickly coming to the fore as the most cost-effective options for financing new equipment, vehicles, and digital initiatives.

Every operational process, including leasing-related ones, can be adapted to an automated operating system, which can fundamentally change the way an organization functions. In the case of leasing companies, the basic activity that can be handled via an automated system is that of applying for leasing, with the application typically going through multiple departments or stages before it is authorized or rejected. These workflows can be easily modeled in the system; moreover, based on user-defined conditional reasoning (such as a credit limit), the application can also move between different processes within the same operation. The emergence of advanced software tools has enabled the automation of entire leasing transaction procedures. Automating the workflow in a leasing company allows it to maintain a high degree of control over joint processes carried out by companies with limited control. Moreover, the process uses data stored in the system, which ensures both higher efficiency and access to large datasets, in addition to serving as a fully natural control and preparation tool for the entire organization.

According to Allieron Fintech [2022], these are the five most significant digitalization trends that will affect the structure of the leasing market in Poland:

- the electronic signature, qualified electronic signature—modern e-leasing products should take advantage of the opportunities offered by this technology; both leasing companies and IT service providers must therefore be ready to deliver this solution in an efficient manner;
- eKYC and eID, or identification tools—these can be used in online communication with public administration and when making use of commercial e-services (such as financial or medical); the processes related to the implementation of eKYC pose many challenges for banks and institutions, but their smooth performance will substantially facilitate customer verification and thus reduce the number of rejected transactions;
- machine learning—in the financial sector, this tool is used for automation purposes (e.g., in customer service processes); its use in leasing will accelerate the application process and improve communication between the parties of a transaction;
- cyber security—it is expected that the security of data use and the use of innovative authorization tools will affect the efficiency of leasing services.

The above comments lead to hypothesis no. 3 [H3], which provides that *digitalization, automation, and robotization result in a change in the nature of leased assets to more advanced ones, tailored to an automated process of production and service provision. They also lead to increased automation and digitalization of the transaction process itself, linked to the relationship between a lessor and a lessee*.

A major trend affecting leased assets is also the development of the electric vehicle (EV) segment, which is due, in particular, to the fact that cars constitute the most commonly leased assets in Poland. The market share of EVs depends not only on the technology itself and the infrastructure associated with this form of mobility, but also on the adopted business model. Consumer preferences in making decisions about the use of EVs was studied by Liao et al. [2019], who analyzed: battery leasing, vehicle leasing, and the mobility guarantee. In their opinion, preferences concerning business models depend on the type of vehicle: in the case of a battery electric vehicle (BEV), the most beneficial option is vehicle leasing, while battery leasing is the least preferred; meanwhile, in the case of conventional cars and plug-in hybrid electric vehicles (PHEVs), the traditional full purchase model is more popular. These findings allow us to draw several

conclusions. Firstly, leasing provided real value added in the case of BEVs, while battery leasing tends to be the least preferred business model, which means that it may be attractive only to a small group of users. Secondly, the assessment of vehicle leasing depends on the type of car: in contrast to BEVs, people prefer to stick to one-off purchases rather than leasing with a monthly payment when using conventional vehicles and PHEVs. Thirdly, the provision of a mobility guarantee for up to 2 weeks a year does not substantially increase the attractiveness of a BEV, and thus it does not play an important role in decision-making when compared to other variables in the selection process.

In turn, Huang et al. [2021] examined consumer preferences with regard to three innovative business models in the EV market: (1) battery leasing, (2) EV leasing, and (3) the business-to-consumer (B2C) model and the traditional vehicle purchase model. The results of their study led to a conclusion that consumers perceive battery leasing and EV purchase models as close substitutes, while the EV leasing and EV sharing models are deemed as independent. Important financial considerations are operating cost savings in the battery leasing model and overhead costs in the EV leasing model. Key EV selection factors in the battery leasing model comprise the option of home charging, vehicle licensing terms, and the availability of vehicle charging stations.

The above can be summarized in hypothesis no. 4 [H4] in that *the development of the electric vehicle segment will lead to an increase in the importance of this type of vehicle not only as leased assets*.

3 Research methods and data sources

The paper—apart from conducting a review of literature—assumes a qualitative methodological approach considering the complex and multidimensional nature of the analyzed phenomenon and due to the existing theoretical knowledge. The IDI method was selected as the primary one for obtaining detailed data from specialists familiar with the leasing industry. The scenario for IDIs was based on the conducted literature review and the proposed research hypotheses. It included both general questions about trends in changes in the volume of the leasing market as well as leased assets, and specific questions about trends that have been identified based on the literature review (Table 1). The interview scenario also provided for a question about whether there are trends relevant to the leasing industry that were identified during the review, so as not to limit interviewees' responses to the phenomena indicated by the researchers.

A total of nine IDIs were carried out in the first three quarters of 2022, with an average duration of around 60 min and were recorded with the consent of the participants. The participants of the interviews were mainly senior executives of leasing businesses in Poland (seven interviews), as well as representatives of the Polish Leasing Association (Table 2). The in-depth interview participants were selected based on their expertise and experience in the leasing industry in Poland, so as to ensure participation of representatives of various types of leasing, accounting for the leased asset (means of transportation, machinery and equipment), client type (SMEs, large enterprises), or specific duration (long-term leasing).

The data gathered as a result of the conducted in-depth interviews was thereafter analyzed using elements of thematic analysis [Attride-Stirling, 2001; Braun and Clarke, 2006; McKendry et al., 2022; Weck and Afanassieva, 2023], the results of which are presented in the next section of this paper.

4 The study results and discussion

The results of the in-depth interviews revealed interdependencies between the identified trends, as described in the research hypotheses.

Responding to the question about the significance of external shocks, including the implications of the COVID-19 pandemic or the ongoing Russian aggression against Ukraine, the respondents not only confirmed the veracity of hypothesis no. 1, but also pointed to a number of specific consequences of these shocks, including with regard to other hypotheses (including, in particular, H2). Specifically, they indicated that:

Table 1. Elements of the IDI scenario in relation to the research hypotheses

Elements of the interview scenario and their relation to the research hypotheses	Research hypothesis no.
General questions about the growth of the leasing market: What is the growth potential of the leasing market in Poland? Are we facing market saturation? Is there still room for growth? If so, when might this occur? If not—what could be the catalyst for further growth?	H1–H4
General questions about leased assets: Currently, leasing is mainly used to finance purchases of movable property, including, in particular, means of transportation, machinery, etc. Only a small part of financing concerns real property. Will this structure persist in the future? Can we expect new trends to emerge in this area? Can we expect real property leasing to grow in importance in the coming years?	H1–H4
Questions about specific trends: What is your opinion on each of these trends? Is it really taking place, and if so, how is it affecting the leasing sector? In your opinion, are there any trends not mentioned here that are relevant to the leasing industry? Questions asked after a specific trend was indicated: The conducted analysis has led us to identify trends currently affecting the leasing sector, including:	
External shocks, including COVID-19, and more recently, the war in Ukraine, and, consequently, *inter alia*, the pursuit of security and shortening of supply chains;	H1
Striving to transition into the circular and collaborative consumption model (subscription of any goods, i.e., anything as a service [XaaS]);	H2
digitalization, automation, and robotization and their impact on: leased assets (including the growing demand for less numerous but more advanced and expensive machinery and equipment), the manner of service performance (to be discussed in more detail in the last section); Changes in customer service methods: integration of web-based customer service modules (interfaces) for various services offered in a financial group—banks + leasing companies (management of a company account, leasing products, credits, etc.), use of telematics (offers better tailored to customer needs, cost reduction and improving the quality of customer service), development of innovations in the financial sector (fintech), including on-line leasing (e.g., on-line executing lease contracts).	H3
Development of the EV segment	H4

Source: Own study.
IDI, individual in-depth interview.

- the importance of optimizing and maximizing the use of assets by companies has increased; this can also be seen in the trend toward prolonging the useful life of products and introducing long-term machinery management services by leasing funds;
- the emergence of the aforementioned shocks has reinforced trends related to the implementation of the sharing economy model and Product- as-a- service (PaaS);
- the pool of leased assets (machinery and vehicles) has decreased due to supply chains being disrupted and, consequently, companies being completely cut off from raw materials and components (during the pandemic period and following the war in Ukraine) used in their production;
- the pressure on digitalization and regionalization of value chains has intensified (in particular, in the pandemic period), with emphasis currently being placed on automation in certain sectors due to the outflow of workers (the return of Ukrainians taking part in the war);
- the pressure on re-using means of transportation and machinery that had already undergone one leasing cycle has increased; in order to reduce the car shortage on the market, the so-called releasing, where a vehicle is given a second life, has emerged; in this case, cars are rented based on a subscription model, for a substantially shorter period, usually no more than a few months; and
- the quality of loan portfolios has also deteriorated.

Table 2. Anonymized information about the in-depth interview participants

Position	Type of entity	Specialization
President of the Management Board	National Association of Leasing Companies	Association of 31 leasing companies and one organization; it represents its members, delivers opinions of draft legal acts, prepares expert opinions, and offers educational and training activities
Chairman	National Association of Leasing Companies	Association of 31 leasing companies and one organization; it represents its members, delivers opinions of draft legal acts, prepares expert opinions, and offers educational and training activities
Managing Director	Company	Long-term leasing
President of the Management Board	Company	Leasing of means of road transport
Regional director	Company	Leasing of heavy transport machinery and equipment; medium and large enterprises (customers)
Regional Department Director	Company	Leasing of means of transport; SMEs (customers)
President of the Management Board	Company	Leasing of means of road transport
Member of the Management Board	Company	Leasing of means of road transport
Management Board Advisor	Company	Leasing of means of road transport

Source: Own study.

Meanwhile, responses to the question regarding the CE, including the sharing economy and product as a service, confirmed hypothesis no. 2. The respondents indicated that the transition to the CE model is also attributable to the broader context related to the implementation of the European Green Deal (EGD) strategy[1] and the increase in costs of energy, including fuel (which is linked with hypothesis no. 1). These changes are evident across the many dimensions of the leasing sector, and include:

- the transition from the goods possession model to their use in the product as a service (PaaS) model, and the development of collaborative consumption;
- the transition from vehicle financing to mobility financing, including new forms of mobility (mobility as a service—MaaS), mainly in cities;
- the trend toward cooperation, as part of value chains, with manufacturers and combining the function of a manufacturer with that of a financial institution; and
- the development of the used equipment market—as a result, leasing companies act not only in the capacity of suppliers of a product as a service (passenger cars, means of public transportation, machinery, equipment, etc.), but also as entities involved in the process of multiple financing of a product during its life cycle, covering both use and preparation for re-use.

Participants in the in-depth interviews further indicated that the described trends are not impacting the segment as much as they are remodeling it. Leasing companies wish to participate in this process by providing sustainable mobility, which entails the use of new engine systems, including those powered by electricity. Sustainable mobility extends not only to cars, but nowadays also to bicycles and scooters, which is accompanied by comprehensive financing options for these vehicles. One consequence of this trend in the development of the leasing sector could be the financing of a mobility budget—provided by an employer to employees for various mobility-related needs. Such a model would envisage an employee being able to choose the optimal means of mobility as part of so-called mobility hubs, where users can take advantage of various means of mobility.

The in-depth interview respondents, as well as the leasing market experts, also confirmed the veracity of hypothesis no. 3, which states that the pursuit of automation and digitalization will have a major impact on the further development of the sector as a whole. However, they indicated that this trend would be more

1 The European Green Deal (EGD) strategy was adopted in December 2019 and is a document that sets out new priorities for EU economic growth (which is being treated as a separate area of activity) making more efficient use of natural resources, ultimately with zero net greenhouse gas emissions. The goal of this strategy is to establish a modern, competitive economy, while committed to furthering the well-being of citizens.

noticeable in the long term and would affect both the way leasing companies operate and the leased assets themselves. In particular, this will encompass:

- an increased demand for more advanced equipment, especially when the SME sector is mobilized, as a sector with great development potential toward innovation, although conditional on support from economic policies;
- growing automation of the industry; for instance, networked cars (IoT), owing to the use of telematics, will become different devices than previously and will go beyond simply satisfying the mobility-related needs; managing such a system not only requires a different approach, but also offers new opportunities; combined with artificial intelligence and big data, this will create new mechanisms in the leasing sector.

The conducted survey also contained an observation that automation and digitalization are driven by the persistence of an employee's market, which forces the restructuring of manufacturing processes. In the leasing sector, this has a significant impact on the growing demand for new machinery and equipment to replace human capital.

With regard to the question related to hypothesis no. 4, i.e., about how important the development of the EV segment is, the leasing market experts taking part in the in-depth interviews indicated that the EV segment currently has a strong positive impact on the industry and will continue to do so in the near future. Factors leading to this include the climate change agenda and the anticipated dynamic electrification of vehicles. Furthermore, these trends will be exacerbated by the advancement of hydrogen-powered vehicles and autonomous cars. The respondents also pointed to the potential related to the demand for EVs in the public sector, including local government units.

However, it is worth mentioning the opinions of experts who demonstrated that the development of the EV segment depends not only on the technology itself, but also on the infrastructure for maintaining these vehicles, changes in the price relationship between fuel powered and EVs, and the emergence of disincentives for using traditional engines.

The data obtained from the in-depth interviews regarding detailed trends was analyzed using elements of thematic analysis, and based on the recurring information on detailed trends, themes were identified, and from among them basic themes were selected. These were subsequently grouped into organizing themes, and thereafter a global theme was identified for the latter. All three levels of themes are illustrated as a net, as shown in Figure 1.

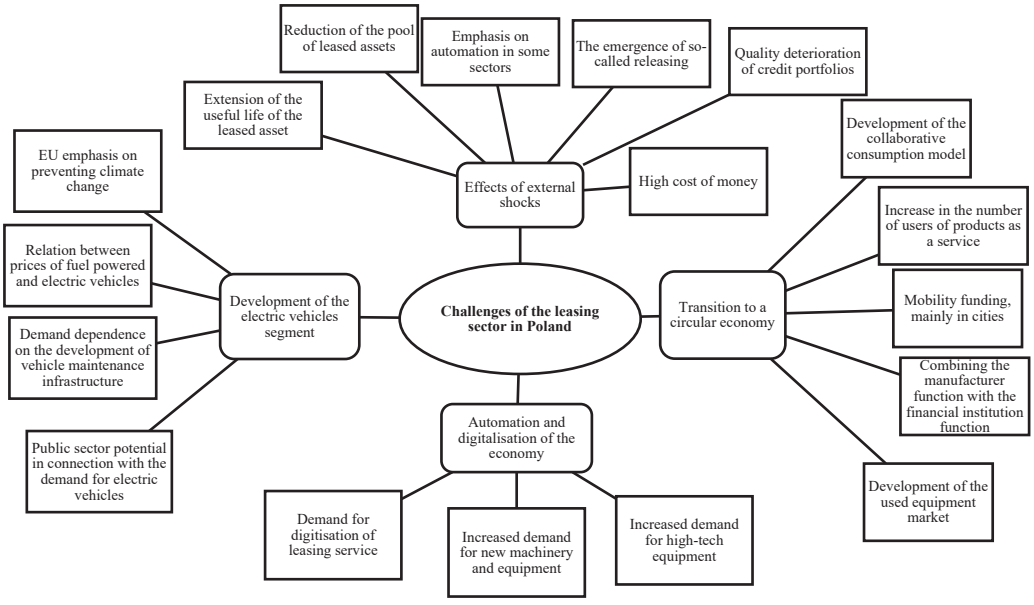


Figure 1. Framework of challenges faced by the leasing sector in Poland.
Source: Own study.

At the same time, it is worth noting that the survey results were supplemented to a great degree by responses to general questions about development prospects of the leasing sector, and the respondents of the in-depth interviews also pointed to development prospects of the leasing market in Poland. The experts agreed that the sector has not yet reached its maximum level of development and that there are still opportunities for market expansion. In their view, the potential directions of development include: long-term lease, lease of PaaS, and the opening of consumer markets. However, the dynamic development of the latter segment depends on whether it will be possible to execute contracts over the Internet (standardized contracts), and there are also certain risks associated with its functioning, which result from consumer clause provisions, the requirement to add VAT to interest (which limits the attractiveness of leased products), or the use of abusive clauses. Moreover, in the consumer leasing segment, the leased asset is not a collateral for the transaction, which increases transaction costs.

Respondents were not in agreement over the development potential associated with the real estate market. On the one hand, this segment is characterized by low leasing penetration (real property accounts for about 1.5% of the leasing value in Poland), which, compared to the trends observed in some Western European countries (mainly France and Italy), suggests further growth. However, considering the conditions prevailing on the Polish market, it is possible that these predictions will not materialize. Factors hindering the development of the real estate leasing services segment include: the long period of depreciation, tax conditions, difficulties in estimating the cost of money in the long term, and instability of regulations. Smaller leasing companies are also concerned about concentrating on a few large transactions, which increases portfolio risk. A niche in real estate leasing is the involvement of local government units and other public entities based on the public–private partnership formula.

As far as the determinants of further development in the leasing market are concerned, the experts pointed to the following growth factors:

- the regionalization of supply chains—this causes the retention of foreign investment in Poland and CEE, which may result in leasing market growth; this will be a consequence of transferring production from remote locations to countries in the region;
- the persistence of an employee's market–this will stimulate automation/optimization of production processes, which may lead to an increase in demand for new machinery and equipment;
- the development of e-commerce, including online trading platforms (marketplaces)—this entails increased demand not only for new services (e.g., digitalized platforms for handling leasing transactions, such as lease link), but also for vehicles, which results from the related distribution models;
- the consolidation of multiple sectors, as stimulated by rising costs of energy, temporarily also by the pandemic and other incidental changes—it is expected that rising business costs will results in the consolidation of many sectors, which is a stimulus for large companies, although it may also destabilize the SME sector.

The conducted in-depth interviews also allowed for identifying factors that have a detrimental effect on the leasing market in Poland, including rising interest rates and inflation, which cause a migration of leasing funds toward cash (given such changes, the tax shield does not compensate the high cost of money). This effect is particularly evident among SMEs, while large companies are more resistant to the changes and implement investments in line with long-term plans.

5 Summary

A further goal of the study described herein was to identify and evaluate key trends of change in the leasing sector. The literature review and the conducted in-depth interviews enabled us to determine the following list of contemporary trends that are relevant to the leasing sector: the CE, the sharing economy and product-as-a-service, incidental and shock-related changes, digitalization, automation and robotization, as well as the development of the EV segment. Furthermore, many of these phenomena fit into the broader concept of so-called sustainable finance.

All of the indicated trends were deemed as relevant by the industry experts.

The CE permits leasing companies to expand their offers into new business areas and to transition from selling products to their use on sharing and leasing platforms. The increased interest in the CE model also stems from the broader context of the EGD strategy implementation and the rising cost of energy, including fuel.

The sector is also affected by the consequences of external shocks, which are evidenced by the growing importance of optimization and maximalization of the use of assets, the popularization of the sharing economy model and PaaS, as well as a reduction in the pool of leased assets caused by, among other things, disrupted supply chains. According to the experts, this increases pressure on the digitalization and regionalization of value chains and the re-use of means of transportation and machinery.

Automation and robotization are trends that can have a two-fold impact on the leasing market. Firstly, they change the structure of leased assets to a more advanced one, corresponding to the automated process of production and service provision; and secondly, they automate and digitalize the transaction process itself. According to the experts, this trend will have rather long-term consequences.

A specific, yet very significant, change in the leasing market was caused by the development and popularization of vehicle electrification technology. The conducted studies have shown that the market share of EVs depends, on the one hand, on the availability of the technology itself and the infrastructure associated with this type of mobility, and, on the other hand, on the business models implemented by companies.

Recapitulating the analysis concerning the influence of the observed development trends on the present image of the leasing sector, a conclusion can be drawn that the changes referred to above do not as heavily impact the segment as they remodel it.

An additional objective of the study was to identify the growth potential of the leasing market in Poland and its determinants. Both the literature review and expert statements confirmed the hypothesis that the industry has not yet reached the maximum of its potential for market expansion. Potential directions for its development include: the long-term rental industry, the rental of PaaS, and the opening of consumer markets. On the other hand, the progressive regionalization of supply chains, the persistence of the employee market as a stimulus for automation and optimization of production processes, the dynamic development of e-commerce and the consolidation of many industries driven by rising energy costs were considered as determinants positively influencing the development of leasing. The in-depth interviews also identified phenomena negatively affecting the leasing market in the region. These include the rise in interest rates and inflation, mainly meaning the migration of leasing funds toward cash.

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