



# **FINANSE i PRAWO FINANSOWE**

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**FINANSE i PRAWO  
FINANSOWE**

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# FINANCIALIZATION AND LEVEL OF HAPPINESS IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT. THE CASE OF CENTRAL AND EASTERN EUROPEAN COUNTRIES

Aleksandra Ostrowska\*, Bogdan Włodarczyk\*\*



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## FINANCIALIZATION AND LEVEL OF HAPPINESS IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT. THE CASE OF CENTRAL AND EASTERN EUROPEAN COUNTRIES

### ABSTRACT

**The purpose of the article.** The article aims to identify and assess the impact of the financialization process on the level of happiness as an effect of sustainable development in selected Central and Eastern European countries in 2012–2022.

**Methodology.** The research used panel models. The World Happiness Index (WHI) was adopted as the dependent variable, taking into account social aspects of sustainable development. Financialization measures included the Financial Development Index (FDI) published by the International Monetary Fund and credit to the private sector (as a % of GDP). The models were estimated using OLS, fixed-effects and random-effects estimators. Macroeconomic variables were included in the set of explanatory variables. The most effective estimator was selected using Wald, Breusch-Pagan and Hausman tests. Robust standard errors were imposed on the models.

**Results of the research.** In the estimated models, the significance of parameters in the case of financialization varied depending on the estimator used. The Financial Development Index was an insignificant variable in all models. Clear significance was observed in relation to credit to the private sector (as % of GDP). Regardless of the financialization measure adopted and the estimator

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used, the obtained parameters for financialization indicators were negative. Although financialization may be an instrument for financing sustainable development, it does not have a positive impact on the level of happiness that results from it. The basic reasons may lie in the too low scale of financing activities related to sustainable development or in the inadequate structure of this financing. Changes in financing are needed and its redirection to activities aimed at achieving sustainable development and happiness. Future research should use other measures of financialization and happiness that take into account aspects of sustainable development and include other countries to make a comparison.

**Keywords:** financialization, happiness, financial development index, credit to private sector, sustainable development, Central and Eastern European countries.

**JEL Class:** B26, E44.

## INTRODUCTION

Global warming, environmental degradation, and the associated risk of ecological disasters are among the greatest problems of the modern world (Yui & Furuya, 2023: 541). To solve them, individual countries should adopt the concept of sustainable development, which combines harmony from an economic, social, and environmental perspective (Mukoro et al., 2022: 1). In 1987, the report of the World Commission on Environment and Development, *Our Common Future*, was published. It includes, among other things, a definition of sustainable development. According to it, sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Płonka et al., 2022: 3). In 2015, a set of 17 sustainable development goals was developed, which were replaced by the so-called millennium goals (Karn & Kumar, 2024: 70). They were adopted by 193 countries to be implemented by 2030. Their effect, apart from protecting the environment and preserving biodiversity, is to maintain an appropriate quality of life, which indicates the sense of happiness among citizens of individual countries (Aksoy & Bayram Arl, 2020: 385; Bonasia et al., 2022).

Achieving sustainable development goals and citizen happiness depends on adequate financing (Barua, 2020: 277), both public and private (Jomo et al., 2016: 1). According to UN estimates, their implementation will require between 5.4 trillion and 6.4 trillion dollars per year in 2023-2030. The main obstacle is the lack of financial resources, and as indicated in the report *Financing Sustainable Development in 2024*, the effects of the COVID-19 pandemic, including, among others: lowering interest rates, widening the existing financing gap. Another challenge will undoubtedly be the need to increase military spending in the coming years, limiting the pool of funds that could be allocated to the green transformation. This applies especially to the countries of Central and Eastern Europe due to their geographical location. Another threat may also be the launch



of the Excessive Deficit Procedure against six EU countries, including Poland, Slovakia, and Hungary, which will require maintaining appropriate fiscal discipline. Regardless of the source of financial resources, their increase leads to the acceleration of the financialization process, i.e., the growing importance of finance in various areas of operation of business entities, households, and the entire economy. However, it is not entirely clear whether financialization in its current form has a positive or negative impact on the key effect of sustainable development, which is the happiness of citizens. To the authors' knowledge, there is a lack of research in this area, which is the basis for addressing this issue in this article.

The article aims to identify and assess the impact of the financialization process on the level of happiness as an effect of sustainable development in selected Central and Eastern European countries in 2012–2022.

The article puts forward a research hypothesis according to which financialization, although it is an instrument for financing sustainable development, does not have a positive impact on the level of happiness that is its effect. The article poses the following research questions. Did the financialization process significantly affect the level of happiness in Central and Eastern European countries? Did the obtained significance and the direction of the impact of the estimated parameters differ depending on the measure of the financialization process used?

The research results confirmed hypothesis and showed an insignificant and negative impact of financialization on the level of happiness of the studied countries in the case of the financial development index and a significant one about credit to the private sector (as a % of GDP). The significance of the impact of measures of the financialization process on the level of happiness depended on the measure used, but the direction of the impact was the same.

## **1. THEORETICAL BACKGROUND**

The key effect of achieving sustainable development is to achieve the appropriate quality of life and happiness for the inhabitants of individual countries (Grum & Kopal Grum, 2020: 788). Happiness is a subjective category related to an individual's life satisfaction (Veenhoven, 2017). External effects, such as global warming and environmental pollution, generate many negative effects, including deterioration of health, which negatively affects the level of happiness. The well-being and happiness of citizens therefore depend largely on progress in achieving sustainable development (Aksoy & Bayram Arl, 2020: 386). Moreover, happier citizens are more willing to implement its rules (Zidansek, 2007). Ensuring an appropriate level of happiness for individuals is one of the social dimensions of sustainable development (Gamage et al., 2022).

Achieving sustainable development goals and citizen happiness requires adequate financing (Nykqvist & Maltais, 2022). According to Mazzucato (2023: 14), the most important are public funds, which should mobilize private investments and be complementary to them. Due to the decreasing possibilities of financing with public funds, there is a need to use private funds, including bank financing, non-financial enterprises, and households. The financing gap is one of the greatest barriers to achieving the Sustainable Development Goals, especially in developing countries (Barua, 2020: 277). This gap has been widened by the development of the COVID-19 pandemic and the shocks it has caused (Mazzucato, 2023: 12). Another shock was the escalation of the Russian-Ukrainian conflict, which disrupted supply chains, leading to a sharp increase in energy and food prices around the world. These events required increased fiscal spending, which weakened the fiscal capacity of both developed and developing countries. This poses a threat to the financing of the SDGs (Arora & Sarker 2023: 1). Another challenge will undoubtedly be the need to finance additional military expenditure in the coming years, which will also limit the pool of funds that could be allocated to sustainable development. This particularly applies to the Central and Eastern European countries due to their geographical location of the above-mentioned armed conflict. These expenses will be related to the modernization of the army, improving defense capabilities, and strengthening cyber security (Weiwei, 2023: 307). Another threat may be the launch of the Excessive Deficit Procedure against six EU countries, also against the CEE countries, including Poland, Slovakia, and Hungary.

The growing demand for financing sustainable development may be another factor driving the financialization of the economy. The growing importance of the financial sphere in the functioning of economic entities and the entire economy has its positive and negative consequences, which can be related to the level of happiness of citizens. The development of financial markets itself is positive, but its excessive growth in the economy has negative effects (Ratajczak, 2017: 30). The positive effects of financialization include growing access to financial market instruments. It is possible to finance consumption needs with loans and credits, related to current consumption as well as long-term consumption, e.g., the purchase of durable goods or real estate (Fernandez & Aalbers, 2016), leading to an increase in the level of happiness to some extent. However, financialization contributes to maintaining the wealth effect due to the increase in the value of owned assets and the tendency to further increase consumer spending (Ratajczak, 2012: 173), which may be negative. Another aspect is the financing of sustainable consumption with bank loans, e.g., in the context of renovation or purchase of a property with an ecological installation, or the purchase of electric vehicles reducing CO2 emissions (Sadorsky, 2010), which should be considered positive. Households also have access to capital market instruments, such as shares and

bonds, which allow them to deposit surplus funds in the form of savings and make investments. However, this raises concerns about the development of speculative activities and the fight for short-term profits (Ratajczak, 2012: 173). Another aspect is the possibility of using insurance and pension security instruments, or bank deposits related to the sustainable development goals. Financialization understood as the growing importance of financial services and products in the economy may therefore be positive in this context, ensuring the security of invested funds and the possibility of increasing them. The associated financial stability may affect the increasing level of happiness. On the other hand, the effect of financialization may be an increase in the burden of servicing the incurred debt and the possibility of losing funds, which results from an inherent element of financial markets, which is a risk. If it materializes, there may be financial instability, loss of security, and a related decrease in happiness. Another aspect is the financing of industries that hurt the environment, which may also indirectly negatively affect the level of happiness.

The mentioned effects may vary between countries and depend on the characteristics of the financial market, the level of its development, the orientation of the financial system, the adequacy of the instruments offered, or the financial knowledge of clients of financial institutions. From the perspective of financialization as an instrument for financing sustainable development, it is important to offer financial products and services and provide financing that will have a positive impact on both sustainable development and the happiness of citizens. Access to financing is therefore one of the conditions for achieving sustainable development, and its goal and effect is to increase the level of happiness of citizens (Stasiak, 2022: 29; Kryk, 2012: 145). It is difficult to find studies on the impact of financialization on the effect of sustainable development, which is the happiness of citizens, which was the motivation for undertaking this research issue.

## **2. RESEARCH METHODOLOGY**

The research used panel models. The selection of variables was made based on substantive and statistical criteria. The research included annual data for 11 Central and Eastern European countries belonging to the European Union, i.e., Bulgaria, Croatia, the Czech Republic, Estonia, Lithuania, Latvia, Poland, Romania, Slovakia, Slovenia, and Hungary. The rationale for the choice of countries is the proximity of the geographical location and the similarity of banking-oriented financial systems. They are also characterized by a relatively lower level of happiness and financialization compared to Western members of the European Union. It is a region of strategic importance that has experienced increased geopolitical risk in recent years (Huang, 2023: 1).

The importance of environmental factors in achieving happiness is increasingly emphasized. In turn, happiness itself, related to the quality of life, is both the goal and the effect of sustainable development. For this reason, the World Happiness Index published annually by the Gallup Institute in World Happiness Reports was selected as the dependent variable. It takes into account the economic aspect, which is GDP *per capita*, and social issues, including social support, healthy life expectancy, freedom, generosity and corruption. The ranking is based on a person's self-assessment of life, in particular on his or her answers to the life assessment questions included in Cantril's ladder. The countries' results are based on a survey in which respondents rate the quality of their current life on a scale from 0 to 10. The higher the value of this indicator, the higher the level of happiness. This indicator has been published since 2012, which determined the choice of the beginning of the research period.

Two financialization indicators were included as explanatory variables. The first is the Financial Development Index (FDI) published by the International Monetary Fund, consisting of nine sub-indices measuring the quality of individual financial market segments. This measure was also used by Ha (2023) and Bui (2020). The research period for this indicator has been shortened to 2021. The second indicator of financialization was credit to the private sector (as a % of GDP). Credit is an adequate measure of financialization for Central and Eastern European countries with banking-oriented financial systems. This measure as a measure of financialization was used in the research by Adom et al. (2020).

The set of explanatory variables included control variables from the macroeconomic environment. Macroeconomic stability is a key factor both in the development of financial markets (Basyariah et al. 2021: 201) and in achieving sustainable development and high quality of life. It determines the supply of loans offered by banks as well as the demand for loans from potential borrowers. As shown in previous studies, macroeconomic variables significantly influence the level of happiness experienced by citizens of European Union countries (Akgun et al. 2023). Greater macroeconomic stability can also provide greater security and improve the situation of economic actors involved in achieving the Sustainable Development Goals. The macroeconomic variables included following other authors are GDP (Kwon et al., 2021), unemployment rate (Barros et al., 2023), public debt (as % of GDP) (Frey et al., 2014) and the current account balance (as % of GDP).

The characteristics of the variables used are presented in Table 1.

Table 1. Characteristics of variables

Symbol	Variable	Unit	Source	Mean	Min	Max	Standard deviation
HI	Happiness index	–	World Happiness Reports	5.94	3.99	7.04	0.59
FDI	Financial Development Index	–	IMF	0.35	0.20	0.50	0.10
C	Credit for private sector	% of GDP	Eurostat	81.64	43.70	130.10	19.60
GDP	Dynamics of Gross Domestic Product	%		2.71	–8.60	13.80	3.09
UR	Unemployment rate	%		7.57	2.00	17.30	3.35
PD	Public debt	% of GDP		47.59	8.20	86.10	20.61
CAB	Current account balance	% of GDP		–0.30	–9.10	7.30	3.10

Source: own study.

Then, tests for the stationarity of the variables were performed. The results of the Levin-Lin-Chu test indicate that all levels of the variables were stationary, as shown in Table 2.

Table 2. Results of Levin-Lin-Chu stationarity tests for variable levels

Variable	Coefficient	t-Student	z-score	p value
HI	–0.270	–4.913	–2.817	0.002
FDI	–0.450	–5.716	–3.196	0.000
C	–0.135	–4.818	–3.661	0.000
GDP	–1.279	–14.281	–12.028	0.000
UR	–0.161	–5.377	–3.986	0.000
PD	–0.586	–7.106	–3.787	0.000
CAB	–0.540	–7.138	–4.040	0.000

Source: own study.

Then, linear correlation coefficients between the variables were calculated. They are presented in Table 3.

Table 3. Correlation matrix

Zmienna	HI	FDI	C	GDP	UR	PD	CAB
HI	1.00						
FDI	-0.10	1.00					
C	-0.50*	0.38*	1.00				
GDP	0.05	-0.11	-0.24*	1.00			
UR	-0.54*	-0.02	-0.38*	-0.19	1.00		
PD	0.08	0.52*	-0.09	-0.08	0.15	1.00	
CAB	-0.13	0.09	0.21	-0.22*	0.08	0.14	1.00

\*means significance at the 0.10 level

Source: own study.

According to Schober et al. (2018), a strong correlation occurs when the correlation coefficient is 0.70 and above. In no case did the obtained correlation coefficients exceed the limit values. Therefore, the variables were included in one model. The strongest correlation occurred between HI and SB (0.54), and the weakest between HI and GDP (0.05). HI was positively correlated with GDP and DP, and negatively with other variables.

The following model was adopted for the OLS approach (Kufel, 2011):

$$y_{it} = x_{it}\beta + v_{it}, \quad (1)$$

where:

$y_{it}$  – dependent variable,

$x_{it}$  – independent variable (in general, the vector of independent variables),

$\beta$  – vector of the N dimension of the models' structural parameters,

$v_{it}$  – total random error composed of the purely random part  $\varepsilon_{it}$  and individual effect  $u_{it}$  pertaining to the specific i-th unit of the panel

( $v_{it} = \varepsilon_{it} + u_{it}$ ).

The model with fixed effects FE assumed the form:

$$y_{it} = x_{it}\beta + u_i + \varepsilon_{it}, \quad (2)$$

And the model with random effects RE looked as follows:

$$\hat{\beta}_{RE} = (X^T\Omega^{-1}X)^{-1}X^T\Omega^{-1}y, \quad (3)$$

where:

$\hat{\beta}_{RE}$  – generalized estimator of the least square of structural parameters,  
 $X$  – matrix of independent variables,  
 $y$  – vector of dependent variables,  
 $\Omega$  – is a reversible matrix of variance and covariance of the total random error.

The validity of the models was assessed with the Wald, Breusch-Pagan and Hausman tests (Koško et al., 2007).

### 3. RESULTS

The modeling was performed taking into account the OLS estimator, with fixed and random effects. After selecting the most effective estimator and testing the properties of the models, robust standard errors (robust HAC) were imposed. The modeling results are presented in Table 4.

The results of the Wald test ( $p\text{-value} = 0.000 < 0.05$ ) indicated that the hypothesis that the OLS model is appropriate should be rejected in favor of the alternative hypothesis that the fixed-effects model is more appropriate. The results of the Breusch-Pagan test ( $p\text{-value} = 0.000 < 0.05$ ) showed that the hypothesis that the OLS panel model is correct should be rejected in favor of the alternative hypothesis that the random-effects model is more appropriate. The decision was made based on the Hausman test, according to the results of which ( $p\text{-value} = 0.943 > 0.05$ ) the hypothesis that the random effects model is appropriate should be accepted. After selecting the estimator, the model was diagnosed in terms of the presence of cross-sectional dependence, autocorrelation and heteroskedasticity. The results of the CD-Pesaran test ( $p\text{-value} = 0.751 > 0.05$ ) indicate that there is no problem with cross-sectional dependence. The results of the Wooldridge test ( $p\text{-value} = 0.002 < 0.05$ ) indicate the occurrence of autocorrelation. In turn, the results of the Wald test ( $p\text{-value} = 0.309 > 0.05$ ) suggest no problems with heteroscedasticity. Robust HAC standard errors were therefore imposed on the estimator and the model was re-estimated. The value of the variance inflation factor (VIF) was also checked. Its value lower than 10 indicates the lack of multicollinearity between the variables (Salmerón et al., 2020). For all variables, this condition was met.

The results of the estimated parameters indicate that FDI negatively affects the level of happiness. This parameter was significant only in the case of the OLS estimator. GDP also took a negative direction of effect, but it was insignificant regardless of the estimator used.

Table 4. Model estimation, dependent variable: HI, number of observations: 110

Variable	OLS	FE	RE	RE robust HAC	VIF
Const.	6.985*** (0.000)	6.403*** (0.000)	6.642*** (0.000)	6.642*** (0.000)	–
FDI	–1.945*** (0.001)	–0.864 (0.431)	–1.270 (0.151)	–1.270 (0.268)	1.41
GDP	–0.017 (0.245)	–0.010 (0.282)	–0.011 (0.231)	–0.011 (0.210)	1.11
UR	–0.109*** (0.000)	–0.104*** (0.000)	–0.103*** (0.000)	–0.103*** (0.000)	1.09
PD	0.011*** (0.000)	0.014** (0.027)	0.012** (0.012)	0.012* (0.087)	1.49
CAB	–0.033* (0.051)	–0.032** (0.030)	–0.033** (0.019)	–0.033 (0.182)	1.11
F-Stat./ LSDV F-Stat.	14.842 (0.000)	24.531 (0.000)	–	–	–
R <sup>2</sup> / LSDV R <sup>2</sup>	0.416	0.800	–	–	–
Adj. R <sup>2</sup> / Within R <sup>2</sup>	0.388	0.527	–	–	–
Wald test	–	17.559 (0.000)	–	–	–
Breusch- Pagan test	–	–	180.639 (0.000)	–	–
Hausman test	–	–	1.218 (0.943)	–	–
CD-Pesaran test	–	–	0.317 (0.751)	–	–
Wooldridge test	–	–	17.374 (0.002)	–	–
Wald test	–	–	2.350 (0.309)	–	–

Source: own study.

A significant negative impact was recorded in the case of the unemployment rate. This is consistent with the research of Akgun et al. (2023), who proved that the situation on the labor market has the greatest impact on the level of happiness, and job loss generates many negative effects, both mental, social and economic. The parameter for public debt was, in turn, significant and positive for all parameters. It should be emphasized that public debt (as % of GDP) in individual CEE countries reached a much lower level in the analyzed period compared to other European Union countries. Moreover, in the case of CEE countries, there has been a gradual increase in social spending, including social spending, which may have a positive impact on the happiness of beneficiaries (www.1).



Additionally, during the period under review, the need to finance expenses related to the pandemic increased. The current account balance (as % of GDP) also had a significant negative impact on the level of happiness. It should be emphasized that it was negative in most CEE countries. A significant deterioration in SROB was additionally recorded in 2021–2022 (www.2).

The next stage of modeling was performed using credit to the private sector (as a % of GDP) as a variable representing financialization. The results are presented in Table 5.

Table 5. Model estimation, dependent variable: HI, number of observations: 110

Variable	OLS	FE	RE	RE robust HAC	VIF
Const.	7.255*** (0.000)	7.177*** (0.000)	7.250*** (0.000)	7.250*** (0.000)	-
FDI	-0.010*** (0.000)	-0.013*** (0.000)	-0.013*** (0.000)	-0.013*** (0.000)	1.30
GDP	-0.025* (0.085)	-0.019** (0.038)	-0.020** (0.027)	-0.020*** (0.001)	1.11
UR	-0.080*** (0.000)	-0.069*** (0.000)	-0.070** (0.000)	-0.070** (0.000)	1.22
PD	0.004* (0.090)	0.004 (0.139)	0.001 (0.142)	0.001 (0.294)	1.08
CAB	-0.013 (0.361)	-0.002* (0.048)	-0.021** (0.044)	-0.021** (0.045)	1.11
F- Stat./LSDV F-Stat.	17.315 (0.000)	29.699 (0.000)	-	-	-
R2 / LSDV R2	0.429	0.809	-	-	-
Adj. R2 / Within R2	0.405	0.572	-	-	-
Wald test	-	20.906 (0.000)	-	-	-
Breusch-Pa- gan test	-	-	232.117 (0.000)	-	-
Hausman test	-	-	1.630 (0.898)	-	-
CD-Pesaran test	-	-	2.477 (0.014)	-	-
Wooldridge test	-	-	23.472 (0.001)	-	-
Wald test	-	-	23.123 (0.210)	-	-

Source: own study.

The results of the Wald test ( $p\text{-value} = 0.000 < 0.05$ ) indicated that the hypothesis that the OLS model is appropriate should be rejected in favor of the alternative hypothesis that the fixed-effects model is more appropriate. The results of the Breusch-Pagan test ( $p\text{-value} = 0.000 < 0.05$ ) showed that the hypothesis that the OLS panel model is correct should be rejected, given the alternative hypothesis that the random effects model is more appropriate. The decision was made on the basis of the Hausman test, according to the results of which ( $p\text{-value} = 0.898 > 0.05$ ) it should be assumed that the model with random effects is appropriate. After selecting the estimator, the model was diagnosed in terms of the presence of cross-sectional dependence, autocorrelation and heteroskedasticity. The results of the CD-Pesaran test ( $p\text{-value} = 0.014 < 0.05$ ) indicate a problem with cross-sectional dependence. The results of the Wooldridge test ( $p\text{-value} = 0.001 < 0.05$ ) indicate the occurrence of autocorrelation. In turn, the results of the Wald test ( $p\text{-value} = 0.210 > 0.05$ ) indicate no problem with heteroscedasticity. Robust HAC standard errors were therefore imposed on the estimator.

The results of the estimated parameters indicate that credit to the private sector (as a % of GDP) has a negative impact on the level of happiness. This was a significant variable in all estimated models. A loan is one of the options for financing everyday consumption and the purchase of real estate. On the one hand, it should contribute to an increasing level of happiness due to the possibility of financing consumption and improving the quality of life. On the other hand, a loan involves the need to pay monthly installments and the risk of an increase in the costs of its servicing in the conditions of variable interest rates and an uncertain macroeconomic situation. Another argument is the increase in housing prices, the scale of purchasing luxury goods and the risk of developing gambling (Gudmundsdóttir et al., 2016). Similar results were obtained by Li et al. (2020) and Jantsch and Veenhoven (2019). The significance and direction of the influence of the remaining control variables were similar to those in the previous models.

To sum up, the conducted research confirmed the research hypothesis. The clear significance of financialization was recorded only in the case of credit to the private sector (as a % of GDP). In the context of sustainable development, this may mean that the financial systems of the surveyed countries are not geared towards the green transformation of the economy or the scale of green finance is still too low. In this regard, it is important to recommend activities aimed at financing technological projects that are environmentally friendly and increase the sense of happiness of citizens (Destek & Manga, 2021: 19). Loan burdens may also be too high, which may be due to the increase in interest rates in recent years. The robustness of the results was obtained by using several panel estimators and including macroeconomic indicators in the set of explanatory variables. The significance and direction of the influence of parameters determining macroeconomic variables were the same in each of the models.

## CONCLUSIONS

Achieving sustainable development is one of the greatest challenges of the modern world. Its main goal and effect is to achieve an appropriate quality of life, which is the basis for citizens' happiness. The multidimensionality of the Sustainable Development Goals requires adequate financing, both public and private. Financialization understood as the growing role of the sphere of finance in the functioning of individuals and in the economy may therefore be an instrument for achieving sustainable development. In this respect, it is important to study the impact of financialization on the key goal of sustainable development, i.e., citizens' happiness.

The conducted research confirmed the research hypothesis according to which financialization, albeit financialization is an instrument for achieving sustainable development, does not have a positive impact on its effect, which is the happiness of citizens. The parameter values of the estimated panel models for the countries of Central and Eastern Europe showed an insignificant, negative impact of the financial system development index on the happiness of citizens and a significant impact of credit to the private sector (as a % of GDP) on the world happiness index. Financialization is not good for the happiness of the inhabitants of Central and Eastern European countries. According to various studies, a negative impact is noted when the development of financial markets exceeds a certain level. However, this cannot be presumed in the case of the studied countries, because these are economies in which financialization is just developing and the scale of its development is relatively small compared to the United States or Western European countries (Gołębiowski & Szczepankowski 2015: 213). Therefore, changes are needed to achieve a positive impact of financialization on citizens' happiness and sustainable development. According to M. Mazzucato (2023), investments related to sustainable development are not attractive because they do not bring measurable profits immediately, only in the long term. Financialization, on the other hand, is associated with short-term profits. It is necessary to create incentives to make long-term investments in sustainable development, as well as to educate society in this area. Instruments in this area may be public-private partnerships or green financial instruments offered by financial institutions, including banks. According to statistics, the CEE countries are among the economies with the lowest levels of innovation and the scale of eco-innovations introduced (www.3).

The conducted research has some limitations. One of them was the adopted research period, which resulted from the availability of data on the World Happiness Index, which began to be published in 2012. For this reason, and in order to ensure greater robustness of the results, future research should also include other happiness indicators containing individual aspects of sustainable

development. Another possibility is to use other measures of the financialization process. Moreover, due to the lack of other studies aimed at estimating the impact of financialization on the level of happiness of citizens, more countries, e.g., the entire European Union, should be included.

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### FINANSYZACJA A POZIOM SZCZĘŚCIA W KONTEKŚCIE ZRÓWNOWAŻONEGO ROZWOJU. PRZYKŁAD KRAJÓW EUROPY ŚRODKOWO-WSCHODNIEJ

**Cel artykułu.** Celem artykułu jest identyfikacja i ocena wpływu procesu finansyzacji na poziom szczęścia jako efektu zrównoważonego rozwoju w wybranych krajach Europy Środkowo-Wschodniej w latach 2012–2022.

**Metoda badawcza.** W badaniach wykorzystano modele panelowe. Jako zmienną zależną, uwzględniającą społeczne aspekty zrównoważonego rozwoju, przyjęto Światowy Indeks Szczęścia (WHI). Miary finansyzacji obejmowały wskaźnik rozwoju system finansowego (FDI) publikowany przez Międzynarodowy Fundusz Walutowy oraz kredyt dla sektora prywatnego (jako % PKB). Modele oszacowano za pomocą estymatorów KMNK, efektów stałych i efektów losowych. Do zbioru zmiennych objaśniających włączono zmienne makroekonomiczne. Najbardziej efektywny estymator wybrano za pomocą testów Walda, Breusch-Pagana i Hausmana. Na modele nałożono odporne błędy standardowe (robust HAC).

**Wyniki badań.** W estymowanych modelach istotność parametrów w przypadku finansyzacji różniła się w zależności od użytego estymatora. Wskaźnik rozwoju system finansowego był zmienną nieistotną we wszystkich modelach. Istotność zaobserwowano w przypadku kredytu dla sektora prywatnego (jako % PKB). Niezależnie od przyjętej miary finansyzacji kierunek wpływu uzyskanych parametrów był ujemny. Choć finansyzacja może być instrumentem finansowania zrównoważonego rozwoju, nie wpływa ona pozytywnie na poziom szczęścia badanych krajów. Podstawowymi przyczynami mogą być zbyt mała skala finansowania działań związanych ze zrównoważonym rozwojem lub nieodpowiednia struktura tego finansowania. Konieczne są zmiany w finansowaniu i przekierowanie go na działania mające na celu osiągnięcie zrównoważonego rozwoju i szczęścia. W przyszłych badaniach należy wykorzystać inne miary finansyzacji i szczęścia uwzględniające aspekty zrównoważonego rozwoju oraz uwzględnić pozostałe kraje UE w celu dokonania porównań.

**Słowa kluczowe:** finansyzacja, szczęście, wskaźnik rozwoju systemu finansowego, kredyt dla sektora prywatnego, zrównoważony rozwój, kraje Europy Środkowo-Wschodniej.

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## IMPLEMENTATION OF PARENT COMPANY'S LIABILITY FOR BANKRUPTCY EXPERIENCED BY SUBSIDIARY: CASE IN INDONESIA

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### IMPLEMENTATION OF PARENT COMPANY'S LIABILITY FOR BANKRUPTCY EXPERIENCED BY SUBSIDIARY: CASE IN INDONESIA

#### ABSTRACT

**The purpose of the article.** The article aims to reveal the existence of vacuum of norms regarding a group company in Indonesia, especially regarding the parent company's responsibility for bankruptcy experienced by its subsidiary.

**Methodology.** This research is normative juridical research. It uses several approaches to obtain information from various aspects regarding the legal issues being studied, namely the statute approach and case approach.

**Results of the research.** This legal vacuum causes differences of opinions among judges in assessing the relationship between a parent company and its subsidiary as a basis for implementing the parent company's liability for bankruptcy experienced by its subsidiaries. In this research, there were cases where the judge found that the parent company was not responsible for the losses or bankruptcy experienced by its subsidiary on the basis that these two companies were separate entities. Meanwhile, in a different case, a judge's opinion was that the parent company and its subsidiary were a single economic entity and there was a special relationship between the two companies, so that the parent company was liable for the bankruptcy experienced by its subsidiary. In this regard, we are of the opinion that it is necessary to establish legislation regarding a group

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company, specifically regulating the liability of parent company for bankruptcy experienced by its subsidiary in order to guarantee legal certainty and provide legal protection for all relevant stakeholders.

**Keywords:** group company, parent company's liability, bankruptcy of subsidiary.

**JEL Class:** G33, K29.

## INTRODUCTION

Global economic developments also influence the development of existing business entities, one of which can be found through the presence of a group company. In this entity the company's operational activities are carried out using a structure involving a parent company and subsidiary (Petrin & Choudhury, 2018). The existence of a group company as a company certainly has an influence on the development of the economic sector in a country. This cannot be separated from the fact that both small and large companies have an influence on the development of the economic sector, one of which is through the role of companies in providing employment opportunities (Edmiston, 2011). In this regard, the role of group company in the economic sector in Indonesia is demonstrated, one of which is that the total income of the top ten group companies in Indonesia reached 9.27% of Indonesia's GDP in 2010 (Sulistiowati, 2013, p. 3). On the other hand, in business terms, the formation of group companies is considered to be able to reduce transaction costs by internalizing transactions through carrying out transactions between companies that are in the same group compared to more expensive market interactions between different companies (not in the same group), so that through the formation of a group company can reduce transaction costs and increase overall economic activity (Dau et al., 2021).

The presence of a group company in Indonesia has existed since the end of the 19th century, which was marked by the emergence of Oei Tiong Ham Concern as the first group company during the Dutch East Indies colonial period which also became the first group company in the Southeast Asia region (Purwanti, 2022). In its development, the existence of a group company in Indonesia continues to experience growth, this can be seen by the increasing number of group companies being formed, for example: Djarum Group, Bakrie Group, and Astra Group. On the other hand, the formation of a group company as a form of business entity has not been followed by legal development efforts. This can be seen from the reality that to date there are no statutory norms that specifically regulate a group company. This condition has led to a vacuum of norms (*rechts vacuum*) in the regulation of a group company in Indonesia, especially regarding the regulation of the parent company's liability for bankruptcy experienced by the subsidiary which is the focus of this research. Vacuum of norms can occur due to



several things, namely, first, the process of drafting statutory regulations takes a relatively long time, so that when the statutory regulations have been ratified there is a possibility that the circumstances or things to be regulated have undergone changes. Second, a particular situation or thing cannot yet be regulated into a statutory organ, or even though it has been regulated into a statutory one, it is still unclear or incomplete (Nasir, 2017). This also reflects the reality that the law will always lag behind the development of society (Kusbianto, 2019).

The absence of statutory norms that specifically regulate the parent company's liability for bankruptcy experienced by its subsidiary has resulted in the single company approach as regulated in Law Number 40 of 2007 concerning Limited Liability Company (hereinafter referred to as Company Law), to be used to assessing the liability of parent company. Based on that statutory regulations the parent company basically has limited liability, with the basis of the assessment that the parent company only has the position of shareholder in its subsidiary. This is in line with the opinion of Altieri and Nicodano (2002) which states that the limited liability of a parent company for the obligations or debts of its subsidiary is a common characteristic in various countries. This creates tension with the controlling authority that the parent company has over its subsidiary, where the parent company can exercise "control" or "influence" business decisions made by the subsidiary, thus giving rise to a related problem of the parent company's liability for the bankruptcy experienced by its subsidiary.

Regarding the liability of a parent company for the debts of a subsidiary that declared bankrupt, Murphy (1998) stated that the concept of limited liability is not relevant in the context of a subsidiary whose shares are all owned by the parent company. In this case even though based on the company law in Australia, a parent company can be held liable for subsidiary debts based on the provisions of the Company Law and the "shadow director" approach, but there can be seen the fundamental incompatibility between commercial interests and the legal approach. Furthermore, Long (2020) revealed the fact that the parent company has the power to exercise control over its subsidiary and analyzed that it is very likely that the parent company will use its subsidiary for its own benefit and harm the interests of creditors. She further stated that the parent company could take advantage of the limited liability principle and independent corporate personality as well as a very careful application of piercing the corporate veil doctrine in the UK, so that the parent company could discharge its liability for the debts of its subsidiary which were in a state of insolvency. Then, Zhang (2022) revealed that based on the law in China, absolute limited liability applies to a parent company which are foreign investors, provided that the parent company has fulfilled the requirements as a legal entity. The implementation of piercing the corporate veil is still limited in application to domestic position of parent company and subsidiary. Meanwhile, this article focuses on the implementation of parent

company's liability for bankruptcy experienced by its subsidiary by exploring several court decisions in Indonesia, where there are different perspectives of judges regarding the relationship between the parent company and its subsidiary as a basis for decision making.

As we will show in this article, there is inconsistency among judges in assessing the relationship between a parent company and its subsidiary as a basis for determining the parent company's liability for the bankruptcy experienced by the subsidiary. We believe that it is necessary to establish statutory norms to provide legal certainty regarding the parent company's liability for bankruptcy experienced by its subsidiary. To articulate the argument that we develop, this article consists of several parts. First, it begins by discussing the existence of a vacuum of norms, because there are no laws and regulations that specifically regulate a group company in Indonesia, especially in this case regarding the regulation of the parent company's liability for bankruptcy experienced by its subsidiary. Second, after seeing that there is a vacuum of norms regarding the parent company's liability, a search will be carried out on court decisions that are related to the focus of this research to see the basic considerations used by the judge in deciding the case. This description will be accompanied by criticism regarding the absence of statutory regulations that specifically regulate the liability of a parent company for bankruptcy experienced by their subsidiary

## **1. METHOD**

This research is a normative juridical research. The legal materials used in this research are legislation, books, documents and other articles related to the focus of this research. The technique for searching for legal materials is carried out using library research and browsing the internet. After an inventory of legal materials related to this research was carried out, the legal materials were studied and then grouped based on their hierarchy and analyzed using prescriptive analysis techniques to draw conclusions. This research uses several approaches to obtain information from various aspects regarding the legal issues being studied, namely the statute approach which is carried out by reviewing all laws and regulations relating to the legal issue being handled and the case approach which is carried out by reviewing cases related to the legal issue under study (Marzuki, 2015: 136–158).

The aim of this research is to reveal the existence of a vacuum of norms regarding a group company, especially regarding the parent company's responsibility for bankruptcy experienced by its subsidiary. To explain this, we analyze several cases related to this research which show that there are differences in judges' opinions regarding the relationship between a parent company and its subsidiary as a basis for decisions. By revealing this, it is hoped that this research

can provide a comprehensive understanding of the relationship between a parent company and their subsidiary and build arguments regarding the importance of establishing laws and regulations as a basis for implementing the parent company's responsibility for bankruptcy experienced by its subsidiary.

## **2. RESULT AND DISCUSSION**

### **2.1. Vacuum of norms regarding the parent company's liability for the bankruptcy experienced by the subsidiary**

As explained above, there is a vacuum of norms in the regulation regarding the liability of a parent company to its subsidiary that declared bankrupt. This condition cannot be separated from the fact that to date, there are no statutory norms that specifically regulate a group company. This vacuum of norms can cause confusion (chaos) in society regarding what rules should be used or applied, so that there is no legal certainty regarding a particular matter (Nasir, 2017). Based on this, it is appropriate that the law in the form of statutory norms must be able to follow the dynamics and legal problems that exist in a society. However, as explained above, the existence of a group company in Indonesia is still not specifically regulated in a statutory norm. The legal vacuum related to the group company can be exploited by the parent company by doing the following:

a) a parent company can use its subsidiary to carry out high-risk business activities, so that when a loss occurs, the loss will be the responsibility of the subsidiary;

b) a parent company can use a loan obtained by one of its subsidiaries from a third party to finance the operations of other subsidiary without the creditor's knowledge;

c) a parent company can transfer part of the assets of its bankrupt subsidiary to another subsidiary, without the knowledge of minority shareholders and creditors of the bankrupt subsidiary. When the bankruptcy assets were settled, ownership of the assets was transferred to another subsidiary. This results in third parties experiencing difficulties in claiming these assets to fulfill their receivable rights (Sulistiowati, 2012).

In this regard, if the activities carried out by the subsidiary run smoothly in accordance with the company's objectives, it will not cause legal problems. Problems arise when the subsidiary experiences financial distress, which results in the subsidiary having difficulty fulfilling its obligations, and then leading to bankruptcy of the subsidiary, which will give rise to problems regarding liability for the losses incurred. In general, the company's responsibility for losses is also influenced by the company's legal status, as follows:

a) liability of a company that is not legal entity;

In companies that are not legal entities, there is no separation between the company's assets and the assets of the company owner. This means that the company owner can be asked to be held responsible for any debts or losses experienced by the company (Bachmid, 2021). For example, in a private company, a person is both the owner and the manager, so the manager is the person who is responsible for all engagements carried out by the company, including responsibility for losses experienced by the company. In this case, the provisions of Article 1131 of the Civil Code apply (Indonesia, 1847b, art. 1131).

Furthermore, in companies that are civil partnerships, general principles apply, where members or partners are not related and not responsible for all partnership debts, and each partner or member cannot bind other partner members, if they are not given the authority to do so (Indonesia, 1847b, art. 1624). Thus, only the member of the partnership who carries out the legal action is responsible to a third party and is personally responsible. However, if the members of the partnership jointly take legal action with a third party, then the third party can sue each of them for the same amount and share (Indonesia, 1847b, art. 1643).

The other forms of companies that are not legal entities are Firm (*venootschap onder firm*) and CV (*Comamanditaire Venootschap*). In a firm, in principle, each partner has the authority to act on behalf of the firm, where members of the firm do not need authority from other members, but these actions bind the partners or other members of the firm to fulfill the obligations that arise from the action to third parties jointly and severally (Indonesia, 1847a, art. 17, §1). That joint liability does not apply if one of the partners is proven to have committed an *ultra vires* act (Indonesia, 1847a, art. 17, §2).

Meanwhile, in CV there are two types of partners, namely management partners or complementary partners, who act as management and limited partners, also known as non-working partners, whose status is only as providers of capital (Indonesia, 1847a, art. 19, §1). Limited partners are only responsible for the capital they have contributed, while complementary partners are personal liability for the obligations/debts of CV. However, if the limited partners are proven to be involved in the management, they will be held jointly and severally liable (Indonesia, 1847a, art. 21);

b) liability of companies that are legal entities;

In contrast to companies that are not legal entities, these companies are legal subjects, and are viewed like humans as legal subjects who hold rights and obligations. There are several forms of companies that are recognized as legal entity in Indonesia, namely State-Owned Enterprises (BUMN), Limited Liability Company, and Cooperatives. Specifically, regarding limited liability companies which are a form of a company that is a member of the group company studied in

this research, the principle of limited liability as regulated in Company Law applies. Based on this principle of limited liability, shareholders are not personally responsible for all agreements made for the company and not responsible for any losses suffered by the company in excess of the shares they own (Indonesia, 2007, art. 3, §1). The limited liability principle does not only apply to shareholders, but also applies to directors and board of commissioners as long as they carry out their obligations and authority in accordance with the applicable provisions as regulated in the Company Law and the company's Articles of Association (Sufiarina et al., 2023).

Based on the company's liability according to its legal entity status as described above, a subsidiary in the form of a limited liability company will bear responsibility for losses that arise, as long as the losses arise as a result of actions carried out by the management on behalf of the subsidiary and for the interests of the subsidiary. However, as explained in the introduction, in a group company there is a possibility of control exercised by the parent company over its subsidiary. The parent company as controlling shareholder can dominate decision making in a subsidiary and maximize personal profits for the parent company, for example, through appointing management to subsidiary that follow the wishes of the parent company (Fujita & Yamada, 2022). In this regard, a subsidiary as a company in carrying out its business activities will of course have relationships with other parties, these relationships can be in the form of sale and purchase agreements, loan or other relationships related to the subsidiary's business activities. In connection with the business activities carried out by the subsidiary, one of the risks that the subsidiary may experience is bankruptcy, where the provisions regarding bankruptcy law in Indonesia are regulated in Law Number 37 of 2004 concerning Bankruptcy and Suspension of Debt Payment Obligations (hereinafter called Bankruptcy Law).

The reason for the enactment of the Bankruptcy Law is because the regulations in the context of settling debts based on *Faillissements verordenen*, *Staatsblad 1905:217 juncto Staatsblad 1906:348*, most of the material is no longer in accordance with the development and legal needs of society and therefore has been changed by a Substitute Government Regulation Law Number 1 of 1998 concerning Amendments to the Law on Bankruptcy, which was later enacted into Law based on Law Number 4 of 1998, however, these changes have not yet met the development and legal needs of society. There are several factors that require regulations regarding Bankruptcy and Suspension of Debt Payment Obligations as stated in the explanation section of the Bankruptcy Law, including (Indonesia, 2004):

a) to prevent seizure of the debtor's assets, when creditors within the same time frame submit claims for their receivables to the debtor;

b) to prevent creditors holding material security rights from demanding fulfillment of their receivables by selling goods belonging to the debtor without considering the interests of the debtor or other creditor;

c) to prevent fraud, whether committed by the debtor or one of the creditors.

In connection with the existence of regulations related to bankruptcy law in Indonesia, Adnan & Sunarto (2020) revealed that the purpose of bankruptcy is to divide the assets belonging to the debtor to all creditors, which is implemented by the curator taking into account their respective rights. Furthermore, according to Babatunde Onakoya & Olotu (2017) revealed that the main purpose of the regulations in bankruptcy law is to provide protection and convenience for debtors, to be a tool that guarantees the achievement of a fair distribution of debtor assets to all creditors, as well as to prevent fraudulent actions that can undermine the purpose of bankruptcy law. These two opinions show that the main purpose of bankruptcy law is to regulate the mechanism for distributing the assets of a bankrupt debtor to its creditors correctly. The party that can be declared bankrupt based on a commercial court decision is the debtor (Indonesia, 2004, art. 1, point 3), where the debtor can be a human (*natuurlijke person*) and a legal entity (*rechtspersoon*). In connection with this, a subsidiary in the form of a limited liability company can be a party that is requested to be declared bankrupt because of its status as a limited liability company which is a legal entity as long as it meets the requirements for declaring bankruptcy as regulated in Article 2 paragraph (1) of the Bankruptcy Law, namely:

a) the debtor has 2 (two) or more creditors; and

b) the debtor does not pay off at least 1 (one) debt that is due and collectible. The debt is not paid either because the debtor is unable to pay or because they do not want to pay (Devi et al., 2022).

The parties that can apply for a bankruptcy declaration as regulated in the Bankruptcy Law include: debtor, creditor, prosecutor, Bank Indonesia, the Capital Market Supervisory Agency, and the Minister of Finance (Indonesia, 2004, art. 2). However, after the enactment of Law of the Republic of Indonesia Number 21 of 2011 concerning the Financial Services Authority as amended by Law Number 4 of 2023 concerning Development and Strengthening of the Financial Sector, there has been the following change in authority in submitting applications for bankruptcy.

The Financial Services Authority is the only party that authorized to submit a request for a bankruptcy declaration and/or a request for suspension of debt payment obligations to debtors who are bank, securities company, stock exchange, alternative market operator, clearing and guarantee institution, depository and settlement institution, fund administrators of investor protection, securities funding institution, securities price assessment institution, insurance company,

sharia insurance company, reinsurance company, or sharia reinsurance company, pension fund, guarantor institution, financing institution, microfinance institution, electronic system operator that facilitate the collection of public funds through offers securities, providers of information technology-based joint funding services, or other financial institutions registered and supervised by the Financial Services Authority as long as their dissolution and/or bankruptcy are not regulated differently from other statutory (Indonesia, 2023, art. 8B).

Based on the provisions as described above, in general, a subsidiary can be filed for bankruptcy by the subsidiary itself as a debtor or by one of the subsidiary's creditors. When a debtor is declared bankrupt based on a commercial court decision, the bankrupt debtor loses their right to control and manage assets which are included in the bankruptcy assets, starting from the time the bankruptcy decision is pronounced (Indonesia, 2004, art. 24, §1). This is in accordance with the opinion of Kartoningrat & Krisharyanto which states that debtors who have been declared bankrupt lose their right to control and manage their assets which are included in the bankruptcy assets, where the authority to manage and settle these assets is transferred to the curator (Kartoningrat & Krisharyanto, 2023). All processing (clearing up bankruptcy assets) is carried out by the curator from the time the decision on the bankruptcy declaration is pronounced, even if the decision is submitted for cassation or judicial review (Simbolon & Sitorus, 2024). The impact of the decision to declare bankruptcy on the debtor is only limited to the debtor's assets, where the decision does not result in the debtor being placed under guardianship (Hadi Shubhan, 2019). In this case, the debtor only loses the ability to manage and transfer assets which are included in bankruptcy assets, but does not lose the ability to carry out legal actions that concern them. In general, the legal consequences of the decision to declare bankruptcy include:

- a) the debtor loses the right (capacity) to control and manage assets which are included in the bankruptcy assets;
- b) the decision to declare bankruptcy only causes the debtor to lose the right to control and management related to the bankruptcy assets, but not regarding the personal person of the bankruptcy debtor;
- c) control and management of bankruptcy assets is carried out by the curator for the benefit of creditors with supervision from the Supervisory Judge;
- d) all claims and lawsuits related to the rights and obligations of the bankruptcy estate are filed by or against the curator;
- e) all actions of the debtor that were carried out before the debtor was declared bankrupt based on a commercial court decision can be canceled if it can be proven that the actions were carried out by the debtor to harm their creditors – this is known as *actio paulina*;

f) the curator can ask the court to cancel the gift made by the debtor, if the curator can prove that at the time the gift was made the debtor knew or should have known that the gift would be detrimental to the interests of the creditor;

g) an agreement entered into by a debtor during bankruptcy only binds the debtor personally or can be requested for cancellation, unless the agreement creates a benefit for the bankruptcy debtor's assets;

h) the execution rights of creditors or third parties to demand fulfillment of their rights which are part of the bankruptcy assets, are suspended for a maximum period of 90 (ninety) days;

i) the right to retain property owned by the bankrupt debtor is not lost;

j) bankruptcy experienced by a husband or wife that is not accompanied by a separation of assets agreement, so it is treated as bankruptcy of a union of assets (Makmur, 2018).

Furthermore, although bankruptcy assets include all of the debtor's assets at the time the bankruptcy declaration decision was pronounced as well as everything obtained during the bankruptcy (Indonesia, 2004, art. 21), based on humanity considerations there are some assets belonging to the debtor that are not included in the bankruptcy assets, including (Indonesia, 2004, art. 22):

a) objects, including animals that are really needed by the debtor in connection with their work, equipment, medical equipment used for health, beds and equipment used by the debtor and their family, and food for 30 days for the debtor and their family who live at that place;

b) everything that the debtor obtains from their own work as remuneration for a position or service, as wages, pensions, waiting money or allowances, to the extent determined by the Supervising Judge; or

c) money that given to the debtor to fulfill an obligation to provide maintenance according to the law.

Specifically for limited compaies that become bankruptcy debtors, the decision to declare bankruptcy results in the directors' power to manage the company being "locked in", even though they continue to hold positions as directors of the company (Sjahdeini, 2009, p. 191). In this regard, a decision to declare bankruptcy against a company does not necessarily result in the company being dissolved, so that a company that has been declared bankrupt based on a commercial court decision can still carry out its business activities (Suryati et al., 2022). In connection with this, there are several benefits that may be obtained by continuing the company's business activities:

a) able to increase the bankruptcy assets through profits obtained from the company's activities;

b) there is a possibility that with the continuation of the company's activities, the company will gradually be able to pay its obligations or debts in full;



c) the possibility of achieving peace between the bankruptcy debtor and its creditors (Karundeng, 2015).

Furthermore, in relation to the management functions of the directors, in the event that the company has been declared bankrupt, the Bankruptcy Law regulates that the company organs, including in this case the directors, can still carry out their functions, but in relation to the expenditure of money included in the bankruptcy assets, this is the authority of the curator (Indonesia, 2004, art. 24, §1). This means that the company's directors can still carry out their functions, except for actions related to spending money as regulated in the Bankruptcy Law. There are several consequences of the decision to declare bankruptcy on the company, including:

a) the power possessed by the directors to manage the company becomes "limited", but the directors in this case still hold their positions as directors of the company;

b) the company's directors become the *functus officio* (recipient of the company's mandate);

c) all assets of the company which are bankruptcy assets are managed and controlled by the curator for the benefit of the creditors in the context of settling the bankruptcy debtor's assets under the supervision of the Supervisory Judge;

d) all obligations carried out by the directors after the company is declared bankrupt cannot be fulfilled from the bankruptcy assets, unless the agreement benefits the bankruptcy assets (Manikoe et al., 2023).

Based on the consequences of declaring bankruptcy as described above, when a subsidiary is declared bankrupt, all assets it owns will be used to pay off all its debts to creditors, which will be carried out by a curator. When the assets of a subsidiary that has been declared bankrupt exceeds all the debts it has, this will not cause problems, especially for creditors, because they will still receive satisfaction for their receivables. Problems arise when the assets owned by a subsidiary are not sufficient to pay off all its debts to creditors, so that the subsidiary is in a state of insolvency (Hidayat et al., 2023). In this regard, the provisions in the current Bankruptcy Law did not regulate the responsibilities of the parent company if its subsidiary is declared bankrupt.

Furthermore, the insolvency situation experienced by the subsidiary as regulated in the Bankruptcy Law, can be a reason for the dissolution of the subsidiary as regulated in Article 142 paragraph (1) of the Company Law. The provisions in the Company Law stipulate that the dissolution of the company can occur due to:

a) based on the decision of the General Meeting of Shareholders;

b) because the period of existence stipulated in the articles of association has expired;

c) based on a court order;

d) with the revocation of bankruptcy based on a commercial court decision which has permanent legal force, the Company's bankruptcy assets are insufficient to pay bankruptcy costs;

e) because the bankruptcy assets of the Company which has been declared bankrupt are in a state of insolvency as regulated in Bankruptcy Law; or

f) due to the revocation of the Company's business license, which requires the Company to carry out liquidation in accordance with statutory provisions (Budiono & Talia, 2023; Rasyidi, 2022).

Similarly, the Bankruptcy Law does not regulate the parent company's liability for bankruptcy experienced by its subsidiary, the provisions in Company Law also do not explicitly regulate the parent company's liability for bankruptcy experienced by its subsidiary. However, the provisions in the Company Law regulate the liability of company organs when the company is declared bankrupt, as follows:

a) liability of director;

If the assets of a company that has been declared bankrupt are not sufficient to pay off all debts, then each member of the board of directors must be jointly and severally responsible for paying off the company's debts, provided that the bankruptcy occurred due to an error or negligence committed by the directors (Indonesia, 2007, art. 24, ayat 2).

This provision also applies to members of the board of directors who have committed errors or omissions, who have served for a period of five years before the decision to declare bankruptcy is pronounced (Indonesia, 2007, art. 104, §3). However, a member of the board of directors can be released from this responsibility if they can prove that (Indonesia, 2007, art. 104, §4):

- bankruptcy experienced by the company did not occur due to the illegality or negligence of the director;

- the director managed the company in good faith, prudence and full responsibility for the interests of the company and in accordance with the aims and objectives of the company;

- the management actions carried out by the director do not have a conflict of interest either directly or indirectly; and

- the board of directors has taken action to prevent bankruptcy;

b) liability of the board of commissioners;

If the assets of a company that has been declared bankrupt are not sufficient to pay off all debts, and the bankruptcy occurs due to an error or negligence by the board of commissioners in supervising the management carried out by the board of directors, then each member of the board of commissioners is jointly and severally responsible with the members of the board of directors for the debt (Indonesia, 2007, art. 115, §1). This responsibility also applies to members of the

board of commissioners who commit errors or omissions, who have served for a period of five years before the decision to declare bankruptcy is pronounced (Indonesia, 2007, art. 115, §2). Just as members of the board of directors that can be free from liability for bankruptcy experienced by the company, members of the board of commissioners can also be free from this liability if they can prove that (Indonesia, 2007, art. 115, §3):

- bankruptcy experienced by the company did not occur due to the illegality or negligence of the members of the board of commissioners;
- the member of the board of commissioners did the task of supervising the management carried out by the board of directors in good faith and prudence for the interests of the company and in accordance with the aims and objectives of the company;
- do not have a conflict of interest, either directly or indirectly, regarding the management actions carried out by the directors which caused the company to go bankrupt; and
- the member of the board of commissioners has provided advice to the board of directors to prevent bankruptcy;

c) liability of the General Meeting of Shareholders;

The General Meeting of Shareholders is one of the organs of the company which consists of the shareholders of the company. In contrast to the liability that is held by the directors and board of commissioners for bankruptcy experienced by the company as described above, shareholder has limited liability for bankruptcy experienced by the company, this means that shareholders are only responsible for the shares they deposit into the company (Nugraheni, 2020). However, the limited liability of shareholders does not apply if proven:

- the requirements for the company as a legal entity have not been or are not fulfilled;
- the shareholder, either directly or indirectly, in bad faith, uses the company for his personal interests;
- the shareholder is involved in unlawful acts committed by the company;
- the shareholders either directly or indirectly use the assets owned by the company, which results in the company's assets being insufficient to pay off debts (Widijowati & Darmawan, 2020).

Based on the description regarding the regulations contained in the Company Law and the Bankruptcy Law as described above, it can be seen that in these two statutes there are still no regulations related to a group company, especially regarding a regulation related to the liability for bankruptcy experienced by its subsidiary, so that this condition causes a vacuum of norms with the absence of statutory provisions that regulate the liability of parent company for bankruptcy experienced by its subsidiary. This of course creates legal uncertainty in law

enforcement regarding the parent company's liability, which can be seen in the second part of this article by exploring several court decisions.

## 2.2. Cases in Indonesia

The existence of a vacuum of norms related to the regulation of a group company, especially regarding the regulation of the parent company's liability for losses or bankruptcy experienced by subsidiary, this reality has led to differences in the views of the panel of judges in deciding cases regarding the parent company's liability for losses or bankruptcy experienced by subsidiaries. This can be seen in the case below:

### 2.2.1. AMERICAN EXPRESS BANK LTD, SINGAPORE ET AL V PT. OMETRACO CORPORATION TBK.

This case started when PT. Ometraco Corporation Tbk. (hereinafter referred to as OC) as the parent company becomes the guarantor of its subsidiary, namely PT. Ometraco Multi Artha (hereinafter referred to as OMA) in a loan agreement with the syndicated bank American Express Bank Ltd, Singapore et al. as stated in the Syndicated Credit Agreement (PKS) dated June 26, 1997. Apart from being a guarantor for its subsidiary, OC also carries out loans for the benefit of its subsidiary, namely OMA, based on the Facility Agreement on December 3, 1996. However, until the maturity date, OMA did not pay off its obligations as stated in the PKS, nor did OC as guarantor pays off its obligations (Ramsay, 2022), so that American Express Bank Ltd, Singapore et al. filed a bankruptcy petition against OC on September 8, 1998, which was registered at the Registrar's Office of the Commercial Court at the Central Jakarta District Court under Register Number: 05/PAILIT/1998/PN.Jkt.Pst. (hereinafter referred to as case no. 05). As for the applicant in case no. 05 among others (Pengadilan Niaga Jakarta Pusat, 1998):

- 1) American Express Bank Ltd., Singapore Branch;
- 2) Overseas Chinese Banking Corporation Limited;
- 3) Royal Bank Of Canada;
- 4) PT. Bank Ekspor Impor Indonesia (Persero);
- 5) Union De Banques Arabes Et Francaises, Singapore Branch;
- 6) PT Bank Internasional Indonesia Tbk;
- 7) PT Fuji Bank Internasional Indonesia;
- 8) PT. Bank BII Commonwealth;
- 9) PT. Bank Pembangunan Indonesia (Persero);
- 10) Bumi Daya Finance Internasional Ltd;
- 11) The Commercial Bank Of Korea Singapore Branch;
- 12) Industrial And Commercial Bank Limited; dan
- 13) PT. Bank Negara Indonesia (Persero) Tbk, Cabang Hong Kong.

Furthermore, the applicant in case no. 05 is called American Express Bank Ltd, Singapore et al. Commercial court in case no. 05 decided that the bankruptcy petition submitted by American Express Bank Ltd, Singapore et al. against OC could not be accepted (Pengadilan Niaga Jakarta Pusat, 1998), where one of the considerations used by judges in case no. 05 is a bankruptcy petition filed against the parent company which should be submitted in one petition for bankruptcy against its subsidiary (Pengadilan Niaga Jakarta Pusat, 1998). There are several considerations used by the panel of judges at the commercial court in case no. 05, among others (Pengadilan Niaga Jakarta Pusat, 1998):

a) American Express Bank Ltd, Singapore et al. as the applicants have apparently also filed a bankruptcy application against OMA which was submitted and registered at the Registrar of the Commercial Court at the Central Jakarta District Court under Register Number: 04/PAILIT/1998/PN.Jkt.Pst . (hereinafter referred to as case no. 04);

b) the legal basis for the bankruptcy petition used in case no. 05 is the same as the legal basis used in case no. 04;

c) between OC and OMA is single economic entity, where OC as the parent company has a large number of shares in OMA, thus greatly determining the continuity of OMA's business or operations;

d) the applicants should only submit one application for declaring bankruptcy, namely against OMA and also against OC, where OC is bound by law as a joint and several liability guarantor (even considered as the only main debtor) so that both OMA and OC can be declared bankrupt in one decision;

e) the application for declaration of bankruptcy against OC uses the same legal basis as the application for declaration of bankruptcy against OMA in two separate applications (case no. 04 against OMA and case no. 05 against OC) will have confusing (ambiguous) juridical consequences.

Furthermore, regarding the decision in case no. 05 was submitted for cassation to the Supreme Court with Register Number: 01 K/N/1998. At the cassation level, the judges decided to continue to reject the application that submitted by American Express Bank Ltd, Singapore et al. However, the main consideration used in the decision at the cassation level was different from the previous decision, namely because the debt which was a requirement for the application for a bankruptcy declaration had not yet expired (Mahkamah Agung, 1998). The considerations used by the judges in this case are as follows (Mahkamah Agung, 1998):

a) OC as the parent company acts as a debtor to American Express Bank Ltd, Singapore et al for the interests of its subsidiary, namely OMA, based on the Facility Agreement dated December 3, 1996, while OMA as a subsidiary acts as

a debtor as described in the form of a Syndicated Credit Agreement (PKS) dated June 26, 1997 No. 274;

b) American Express Bank Ltd, Singapore et al as the applicant in this case have mixed up the maturity agreed in the Facility Agreement dated December 3, 1996 with the maturity stipulated in the Syndicated Credit Agreement June 26, 1997;

c) based on the provisions in the Facility Agreement dated 3 December 1996 between OC and American Express Bank Ltd, Singapore et al, the maturity date is 24 months starting from the date of the first loan withdrawal;

d) OC had made the first withdrawal of the loan on December 3, 1996, so the maturity date was December 3, 1998, so that the application for bankruptcy declaration submitted by American Express Bank Ltd, Singapore et al in case no. 05 to the Commercial Court dated September 8, 1998 is premature or too early.

Although the judges at the cassation level in this case rejected the application for a bankruptcy declaration submitted by American Express Bank Ltd, Singapore et al against OC, the panel of judges at the cassation level in their decision were of the opinion that in the current and future development of business activities there are group companies which have several subsidiaries, the number of subsidiaries can even reach tens to hundreds. In these group companies, basically there is no separation of economic activities and objectives (may have no separate economic existence) between the parent company and its subsidiary (Mahkamah Agung, 1998). Even when the parent company and subsidiary have the same management (directors), this can result in no business separation between the two companies (Ramsay, op cit.) However, the panel of judges in their decision at the cassation level canceled the Commercial Court Decision at the Central Jakarta District Court Number: 05/Pailit/1998/PN.Niaga/Jkt.Pst. with consideration based on the facts of the Facility Agreement dated December 3, 1996 and the Syndicated Credit Agreement dated June 26, 1997 as intended, which are related to the legal principle of separation of personality (separate entity) between the parent company and subsidiaries within the group company, then the application for a bankruptcy declaration is submitted in two applications that separate and independent, namely case no. 04 and case no. 05 does not conflict with legal provisions, so the opinions and conclusions in Decision Number 05/Pailit/1998/PN.Niaga/Jkt.Pst. which requires combining settlements in one application for bankruptcy declaration, cannot be maintained and the decision must be cancelled (Mahkamah Agung, 1998).

Based on the opinion of judges in the Supreme Court Decision Number: 01 K/N/1998 as described above, it confirms that legally speaking, between the parent company and its subsidiary, each is an independent legal entity. In connection with this, the civil law recognizes the existence of regulations

regarding the family law, which regulates the rights and obligations that parents have towards their children. This is different from a parent company which does not have "parental power over its subsidiary", like the relationship between a father/mother and their child in the family law (Supramono, 2007). This happens because a subsidiary in the form of a limited liability company is a legal entity which, when it has received approval as a legal entity, is considered to be "mature" and has independence.

#### 2.2.2. EMPLOYEES OF PT. INTI FASINDO INTERNATIONAL V PT. GREAT RIVER INTERNATIONAL TBK.

PT. Great River International Tbk. is a company engaged in the manufacturing and distribution of men's, women's and children's clothing (Bloomberg, n.d.), which was founded on July 22, 1976 with the initial name PT. Great River Garment Industries which later changed its name to PT. Great River Industries in 1991, and finally changed its name to PT. Great River International in 1996 (Pengadilan Hubungan Industrial, 2007). PT. Great River International Tbk. has several branches and several subsidiaries, one of which is PT. Inti Fasindo International which has business activities in the form of distribution and trading of clothing and consulting equipment. The shareholders at PT. Inti Fasindo International as of December 31, 2004, as follows (Otoritas Jasa Keuangan, n.d.):

Tabel 1. Shareholders of PT. Inti Fasindo International

Pemegang Saham	Persentase
PT. Great River International Tbk.	99,95%
Wendy Tanudjaja	0,05%

Source: Otoritas Jasa Keuangan.

Furthermore, in carrying out its business activities, PT. Inti Fasindo International has a company organ with a board of commissioners and directors as follows (Otoritas Jasa Keuangan, n.d.):

a) susunan dewan komisaris:

- Chief Commissioner : Doddy Soepardi Harun Al Rasyid
- Commissioner : Wendy Tanudjaja
- Commissioner : Johanes Abdulhay Sinungan
- Commissioner : Philip Juchahana

b) susunan dewan direksi:

- President Dirertor : Sunjoto Tanudjaja
- Vice of President Dirertor : Albert Mario Setiawan
- Dirertor : Djims Kurnia
- Dirertor : Hasanuddin Rachman

In this case, 557 employees of PT. Inti Fasindo International (as Plaintiffs) filed a lawsuit against PT. Great River International Tbk. which is the parent company of PT. Inti Fasindo International at the Registrar's Office of the Central Jakarta District Court on February 15, 2007 with registration number: 40/G/PHI.PN.JKT.PST. The basis for filing a lawsuit in this case is because the salaries/wages that the Plaintiffs should have received have not been paid. In this case, the judges accepted the exception submitted by PT. Great River International Tbk. (as Defendant), on the grounds that the lawsuit filed by 557 employees clearly stated that they were employees of PT. Inti Fasindo International, but in this lawsuit filed against PT. Great River International Tbk. so that this lawsuit is wrong in determining the Defendant (error in persona). Apart from that, the judges considered that between PT. Inti Fasindo International with PT. Great River International Tbk., is two different legal entities and each is independent, so the panel of judges in this case decided that the lawsuit could not be accepted (Pengadilan Hubungan Industrial, 2007).

In this case it can be seen that the judges saw that even though PT. Inti Fasindo International with PT. Great River International Tbk. has a relationship as a subsidiary and parent company, but legally both are separate legal entities, so that legally 557 employees of PT. Inti Fasindo International have no legal relationship with PT. Great River International Tbk. However, it is interesting to note the relationship between PT. Inti Fasindo International with PT. Great River International Tbk. in their business activities, where both of them have a scope of business activities in the clothing sector. Apart from that, as explained above, the management at PT. Inti Fasindo International that holds the position of the main director is Sunjoto Tanudjaja, where at the same time Sunjoto Tanudjaja is also the President Director of PT. Great River International Tbk (Tempo, n.d.). The existence of interconnected business activities and the similarity of management (directors) between the parent company and the subsidiary company raises the question of whether the concept of separation between the parent company and the subsidiary company as a legal entity in the construction of a group company is something absolute. This question arises because in this case there is the potential that PT. Inti Fasindo International as a subsidiary can be used as a "tool" for PT. Great River International Tbk. as a holding company in carrying out its business activities.



### 2.2.3. CHUAN SOON HUAT INDUSTRIAL GROUP LTD. CASE

This case started when PT. Cemerlang Selaras Wood Working (hereinafter referred to as CSWW) has been declared bankrupt based on the Commercial Court Decision at the Central Jakarta District Court Number: 37/Pailit/2010/PN.NIAGA.JKT.PST. on June 16, 2010. CSWW is a legal entity in the form of a limited liability company established under Indonesian law based on the Deed of Establishment No. 30 dated June 17, 1989, made before Agus Madjid, S.H., Notary in Jakarta. This deed has received approval from the Minister of Justice of the Republic of Indonesia based on Decree No. C2-10297-HT.01.01.TH.89 dated 3 January 1989, and registered at the Tangerang District Court Office under No.HT.01.02.58/1989/PN.TNG dated 13 November 1989, and published in the State Gazette of the Republic of Indonesia No. 99, dated December 12, 1989, Supplement No. 3501 (Mahkamah Agung, 2010). CSWW is a subsidiary of Chuan Soon Huat Industrial Group Ltd. (hereinafter referred to as CSH), which is a public company with business activities in the form of wholesale trade in logs, sawn wood, plywood and related products.(SGPBBusiness, n.d.) CSH is a company domiciled and subject to the laws of Singapore, and is the majority shareholder in CSWW which owns 99% of the shares (Purnama et al., 2023). The composition of shareholders in CSWW is as contained in CSWW's Articles of Association as stated in Deed Number 03 dated May 1, 2009, which was made before Yasmine Achmad Djawas, S.H., Notary in Tangerang Regency, and has received approval from the Minister of Law and Human Rights Number: AHU 23913.AH.01.02 dated June 1, 2009, is as follows (Mahkamah Agung, 2010):

Tabel 2. Shareholders of PT. Cemerlang Selaras Wood Working

1	PT. Chuan Soon Huat Industrial Group Ltd.	3.960	USD 3.960.000,00	Rp. 7.013.160.000,00
2	Rudi Widjaja	40	USD 40.000,00	Rp. 70.084.000,00
	Total	4.000	USD 4.000.000,00	Rp. 7.084.000.000,00

Source: Putusan Mahkamah Agung Nomor: 1038 K/Pdt. Sus/2010.

In this case, CSH felt disadvantaged because in the receivables matching meeting held on August 5, 2010 the curator did not recognize the receivables owed by CSH to CSWW amounting to US\$ 37.622.051.95 and SGD 4,300,113.30 or if converted into Rupiah, it was IDR 372,879,243,493.00. The reasons used by the curator in denying the recognition of CSH's receivables in the receivables matching meeting are as follows (Mahkamah Agung, 2010):

a) CSWW as a subsidiary of CSH has never sold the products it produces to any party, other than CSH. In this case, the curator views CSH as a holding company that finances the operational activities of its subsidiary, namely CSWW, so that CSWW can produce all the materials, and then all the products produced are then only sold to the parent company. Based on these conditions, the curator sees that legally there is a special relationship between the parent company and the subsidiary, so it views the CSH's receivable as capital participation;

b) apart from that, the curator also considered that if CSH's receivables were recognized, it would cause losses to other creditors, because the amount of claims submitted by CSH exceeded the amount of assets owned by CSWW.

Based on the description above, CSH's receivables were not recognized by the curator at the receivables matching meeting, so CSH then filed an objection in the Commercial Court at the Central Jakarta District Court. In this case, CSH provided a rebuttal, which essentially stated that the claim submitted by CSH arose from a debt-receivable relationship and was not a capital contribution, and stated that CSH and CSWW were separate legal subjects with reference to Supreme Court Decision Number: 01 K/N/1998 dated November 19, 1998 between PT. Ometraco Corporation Tbk. against American Express Bank Ltd, Singapore et al. In this case, the Commercial Court at the Central Jakarta District Court in Decision No: 37/Pailit/2010/PN.Niaga.Jkt.Pst dated October 14, 2010 decided to reject the objection request (renvoi procedure) from CSH and determine the list of claims to CSWW Creditors made by the Curator on August 5, 2010 is valid (Mahkamah Agung, 2010). Against the commercial court's decision, CSH then filed an appeal. In the cassation application that submitted by CSH, several things were stated as follows (Mahkamah Agung, 2010):

a) the receivables submitted by CSH are because of the debt-receivables agreement between CSH and CSWW, which has been acknowledged by CSWW and confirmed and affirmed as correct by the Public Accountant who conducted the Audit of CSWW's Financial Report, namely Kiman Mustika Karta from Johan Malonda Public Accounting Firm Astika and Partners via letter dated June 28, 2010, so that the receivables do not constitute capital payments;

b) CSH as a shareholder of CSWW last paid capital to CSWW in 1994, based on Deed No. 67 dated December 29, 1994 made before Haryati Surachman, successor to Suzana Zakaria, Notary in Jakarta, which had obtained approval from the Minister of Justice of the Republic of Indonesia based on Decree No.C2-283.HT.01.04.TH'96 dated January 9, 1996;

c) based on the provisions in Article 1131 and Article 1132 of the Civil Code, it is stated that all people who have receivables have the right to obtain repayment of these receivables from objects owned by the party who owes them.

In connection with the cassation petition submitted by CSH, the Supreme Court at the Cassation level in its decision rejected CSH's petition, thus strengthening the Decision of the Commercial Court at the Central Jakarta Court Number: 37/Pailit/2010/PN.NIAGA.JKT.PST, on the basis that CSWW as a subsidiary does not carry out sales transactions for its products to any party, except to CSH which is its parent company, so this is a special relationship that causes a breach of limited liability based on the provisions in Article 3 paragraph (2) of the Company Law. So in this case, CSH is not a creditor and the curator's decision to reject the receivables submitted by CSH has legal grounds (Mahkamah Agung, 2010).

Based on the description of the court decision regarding group companies as described above, it can be seen that there are differences in the views of the judges regarding the relationship between the parent company and its subsidiary in the construction of a group company, where of course these differences will affect the burden of liability held by the parent company. The differences in views can be seen in the table below:

Tabel 3. Differences in Judges' Considerations Regarding the Relationship Between Parent Company With Its Subsidiary

No.	Case	Judge's Consideration	Verdict
1.	American Express Bank Ltd, Singapore et al v PT. Ometraco Corporation Tbk.	- the subsidiary and parent company are single economic entity and the parent company is in the position of debtor and guarantor, so that the application for declaring bankruptcy against the parent company and subsidiary company should be submitted in one application.	Putusan Pengadilan Niaga Pada Pengadilan Negeri Jakarta Pusat Nomor: 05/Pailit/1998/PN.Niaga/Jkt.Pst,
		- The parent company and subsidiary are separate entities and each company is an independent subject, so that applications for bankruptcy can be submitted separately.	Putusan Mahkamah Agung Nomor: 01 K/N/1998
2.	Employees of PT. Inti Fasindo International v PT. Great River International Tbk.	In law, the parent company and the subsidiary are separate legal entity, so that the employees of the subsidiary have no connection (relationship) with the parent company.	Putusan Pengadilan Hubungan Industrial pada Pengadilan Negeri Jakarta Pusat Nomor: 40/G/PHI.PN.JKT.PST,
3.	Chuan Soon Huat Industrial Group Ltd. Case	Between the parent company and its subsidiaries there is a "special relationship", so that piercing the corporate veil can be applied to the parent company.	Putusan Mahkamah Agung Nomor: 1038 K/Pdt. Sus/2010

Source: processed by the authors.

Based on the description of the differences in the judges' considerations regarding the relationship between the parent company and its subsidiary as outlined in the table above, it can be seen that there are still differences in the judges' considerations regarding the relationship between the parent company and its subsidiary. Even in the case of American Express Bank Ltd, Singapore et al v PT. Ometraco Corporation Tbk, the judges at the first level saw the existence of the parent company and its subsidiary as single economic entity, however at the cassation level the Supreme Court considered that the parent company and subsidiary were separate entities, where this consideration was the same as the judge's consideration in the case of employees of PT. Inti Fasindo International v PT. Great River International Tbk. Furthermore, judges' view that attracted attention was in Chuan Soon Huat Industrial Group Ltd. case where the Supreme Court considered that there was a "special relationship" between the parent company and its subsidiary as a reason for implementing the parent company's liability for bankruptcy experienced by the its subsidiary. However, there is no explanation regarding the "special relationship" in the decision, this cannot be separated from the fact that up to now there are still no statutory that specifically regulate the relationship between the parent company and its subsidiaries in a construction group company.

Apart from that, in the Chuan Soon Huat Industrial Group Ltd. case in this receivables matching meeting, the curator denied the receivables submitted by CSH, because he considered that the receivables submitted were not receivables, but were considered capital participation and the curator also considered that if CSH's receivables were recognized, it would cause losses to other creditors, because the amount of the receivables submitted by CSH exceeds the amount of assets owned by CSWW. This of course raises the question that if the receivables owned by CSH do not exceed the assets owned by CSWW and other creditors still receive repayment for their receivables, whether the receivables submitted by CSH will be accepted by the curator. In this regard, the authors are of the opinion that the reasons used by the curator are not appropriate because even though the assets that owned by CSWW as a debtor are not sufficient to fulfill all the receivables owned by creditors, the fulfillment of debts owned by bankrupt debtors should be carried out proportionally to all creditors based on the *pari passu pro rata parte* principle, which of course must first rank the creditors based on a series of priority rights they have as regulated in the Bankruptcy Law (Yuhelson & Maryono, 2018).

## **CONCLUSIONS**

The research results show that the existence of a group company as a form of development of business entity in business activity can be an option for business

actors, but this development has not yet been followed by legal development in Indonesia. This can be seen from the lack of statutory norms that specifically regulate a group company, where neither Company Law nor Bankruptcy Law explicitly regulates the liability of the parent company for bankruptcy experienced by its subsidiary, which is the focus of this article. This vacuum of norms can be exploited by a parent company, one of which is by using its subsidiary to carry out high-risk business activities, and when a loss occurs, the loss becomes the liability of the subsidiary.

Furthermore, this vacuum of norms also causes there to be no legal certainty regarding the parent company's liability for bankruptcy experienced by its subsidiary. This is shown by the differences in judges' opinions in assessing the relationship between the parent company and its subsidiary. Based on the case described in the discussion section above, it is shown that there are differences in the opinions of judges, where there are judges who consider that the parent company and its subsidiary are separate entities so that the parent company is not liable for losses or bankruptcy experienced by its subsidiary. Meanwhile, in a different case, a judge's opinion was found which considered that the parent company and its subsidiary were a single economic entity and there was a special relationship between the two companies, so that the parent company was liable for the losses or bankruptcy experienced by its subsidiary.

In connection with this, we are of the opinion that it is necessary to establish legislation regarding a group company, in particular regulating the liability of the parent company for bankruptcy experienced by its subsidiary. This is important to do in order to guarantee legal certainty. With legal certainty regarding this matter, it is hoped that it can prevent misuse of subsidiary by the parent company and can provide guarantees of legal protection for all relevant stakeholders.

#### **DISCLOSURE STATEMENT**

The authors report no conflicts of interest.

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## BNPL IN THE CONSUMERISM WORLD: ABOUT THE EXCESSIVE DEBT TRAP

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### BNPL IN THE CONSUMERISM WORLD: ABOUT THE EXCESSIVE DEBT TRAP

#### ABSTRACT

**The purpose of the article.** This article aims to present the characteristics of BNPL and the excessive debt risk it poses within the context of widespread consumerism.

**Methodology.** The study relies on secondary data obtained through a thematic literature review, encompassing scientific publications and industry reports. Focusing on the Polish BNPL market, the research synthesizes this information to outline BNPL's operational characteristics, identify determinants influencing Polish consumers' adoption of BNPL, and discuss both the prospects and risks associated with BNPL usage.

**Results of the research.** Findings indicate that BNPL facilitates consumer purchases by deferring payments, which can drive consumerism and increase the inclination to use BNPL, thus accelerating its growth. The simplicity and convenience of BNPL, coupled with the absence of immediate financial repercussions, can lead to irresponsible usage and push consumers into an excessive debt trap. Additionally, a lack of economic knowledge, particularly financial literacy, further heightens the risk of a debt spiral. In the context of broader discussions on BNPL, other significant risks must be considered, as the expansion of these services depends on meeting expectations similar to those of other digital lending options. This includes establishing consumer trust in BNPL, largely through mitigating such risks. Like other digital services, BNPL requires the sharing of personal data, introducing potential security concerns. Therefore, BNPL providers must prioritize data protection to secure consumer information. Additionally, consumers should stay cautious to avoid fraud, like phishing, by being aware of the risks.

**Keywords:** buy now, pay later, BNPL, consumerism, excessive debt, debt spiral.

**JEL Class:** D12, D14, D15, G21, G51.

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## INTRODUCTION

The concept of sustainability is becoming increasingly noticeable in consumer behaviour, especially in purchasing habits, leading to a growing significance of the deconsumption trend (Radziszewska, 2017). Deconsumption involves a conscious effort to limit consumption to rational levels, based on natural, individual, physical, and psychological characteristics of the consumer (Bywalec, 2010: 14). Although it receives considerable attention in academic discussions, in reality, a completely opposite phenomenon is profoundly strong – consumerism (Dąbrowska, 2015). This stems from the fact that consumption forms the foundation of the modern economy, which is reflected in the contemporary reality as a “world of consumption” (Mysona-Byrska, 2021). Moreover, this is encouraged by the intensification of marketing efforts of companies that in conditions of hyper-competition, strive to create new needs and encourage excessive consumption (Banaszyk et al., 2021).

The acquisition of goods necessary to satisfy needs through purchase has a utilitarian nature. However, buying goods without a specific purpose can be considered irrational. This is because consumerism and people’s attachment to material goods, often exceed real needs (Dąbrowska, 2015). Consumerism can be a result of many factors including: spontaneous buying under the influence of emotions (impulsive consumption), the desire for pleasure (hedonistic consumption), the desire to express oneself and one’s lifestyle (symbolic consumption), and the desire to stand out from others by demonstrating owned goods (conspicuous consumption) (Bylok, 2016). However, to purchase goods for consumption, financial resources are necessary. As a result, studies on consumption are closely tied to research on its financing (Grala & Bogucka, 2020).

The Polish financial market offers a range of credit and loan options, yet new financial products continue to emerge. One should point here to BNPLs (Buy now, pay later), which are a type of short-term credit that allows consumers to purchase products, but make the payment later (Waliszewski et al., 2024). BNPL repayment periods are typically 30 days, and this option is widely available across leading e-commerce platforms in Poland. For consumers, BNPL is attractive, especially considering the protections under the Polish consumer law (Act of May 30, 2014). Under this law, consumers purchasing online have the right to withdraw from a contract within 14 days without providing a reason. This enables consumers to inspect purchased items before committing financially, incurring costs only if they are satisfied and choose not to return the item within the specified period.

BNPL increases access to credit and simultaneously reduces the financial exclusion (Waliszewski et al., 2024). However, irrational use of BNPL, similar to other credit forms, introduces financial risks (Solarz, 2012: 66–89). Consequently, enabling purchases through BNPL can be viewed as a potential source of excessive debt (Grala & Bogucka, 2020). Therefore, it is essential to consider how BNPL might impact consumer behavior, especially in terms of increasing consumption levels. This article aims to present the characteristics of BNPL and the excessive debt risk it poses within the context of widespread consumerism. To achieve this aim, the following research questions were posed: What are the defining features of BNPL as a form of deferred payment? What benefits does it provide, and what risks are associated with its use?

The article is structured as follows: Section 1 provides a brief literature review on consumerism and deferred payments, forming a foundation for further discussion. Section 2 describes the research methodology and data collection approach. Section 3 presents findings related to the impact of BNPL on consumer behavior, including the risk of excessive debt. Section 4 includes a discussion of research limitations and suggestions for future studies. The article concludes with a summary of key insights.

## **1. LITERATURE REVIEW**

### **1.1. Consumerism in the Digital Age**

Nowadays, consumption goes beyond meeting economically justified human needs; it has evolved into a lifestyle model. Consumerism reflects an attitude that places exaggerated importance on material goods, fueled by the belief that these possessions can enhance life quality (Dyksik, 2021). It represents an excessive level of consumption that exceeds actual needs and often disregards social costs and environmental impact – an important concern in an era that emphasizes sustainable behavior. As Dyksik (2021) rightly notes, consumerism as a collective fondness has dominated consumer consciousness to the extent that their life ambitions, goals, joys, and sorrows are tied to acquiring and searching for material goods.

In adopting this consumerist model, individuals align with the marketing structure, advertising, and a desire to live without concern for the future (Wolska-Zogata, 2018). A significant feature of consumerism on the buyer's side is inducing a continuous desire to constantly consume new goods. This compulsion often stems from the need to possess items simply because others do (Gavryshkiv, 2019). Through partnerships with influencers – including celebrities, bloggers, and vloggers who act as brand ambassadors and opinion leaders – companies stimulate demand for products, often by creating new needs.

These collaborations boost the brand's visibility online, attracting new customers and driving sales. Influencers' endorsements may lack objectivity yet exert a strong influence, particularly on younger audiences (Wolska-Zogata, 2018). According to research by Potyrańska and Puzio (2021), product endorsements by public figures influence the purchasing decisions of 41% of respondents.

Consumerism can be defined by three key elements: a predisposition toward conspicuous consumption, a materialistic approach to life, and a rising trend of impulsive buying addiction (Kacprzak-Choińska, 2007). Materialism places purchasing at the center of an individual's life, with success measured by the possessions one holds. Jasiulewicz (2015) highlights that in developed societies, self-worth and the judgment of others are often based on what they buy and how much they own. Consumers are drawn to products for the symbolic meanings they convey, making consumer goods topics of conversation rather than merely items for exchange (Gavryshkiv, 2019).

This consumption imbalance was further amplified during the COVID-19 pandemic, which notably impacted consumer behavior. The pandemic not only altered lifestyles but also reshaped habits, routines, and established consumption patterns (Hadasik & Kubiczek, 2022). During this period, online shopping expanded considerably and now represents a growing share of total retail sales. According to research conducted by PayPo (2022), in 2022, 87% of adult internet users, or about 26.1 million people, shopped online, while 8% of them made their first online transaction during the COVID-19 pandemic (Maciejewski, 2023). Additionally, 43% of respondents reported that the ease and accessibility of online shopping encourage higher spending, as consumers do not directly feel the transaction (PayPo, 2022). The pandemic-driven increase in online shopping has fostered a trend toward excessive spending, often leading to debt accumulation. Moreover, the development of lending services within the online shopping sector has made credit more accessible, increasing the risk of debt traps (Waliszewski et al., 2023).

## **1.2. BNPL as a Deferred Payment Service**

Payment deferral enables consumers to make purchases and settle payments at a later date. The concept of delaying payments through debt has a long history, with financial services facilitating deferred payments evolving alongside financial systems and technology, allowing greater flexibility in managing payment obligations. Today, deferred payment options are widespread across various retail sectors, including consumer credit, leasing, and mortgages.

The rapid growth of modern financial products and services has given rise to alternative debt models like BNPL. With their use, a consumer can make a purchase and spread the payment over instalments, often without additional

interest if repaid within a specified timeframe set by the provider. However, BNPL does not rely on a novel mechanism; rather, it represents an evolution of loans and credits offered by financial institutions, particularly FinTech firms. What sets BNPL apart from traditional debt instruments is its focus on a market segment defined by digitalization and the increase in purchases made online by users actively utilizing digital technologies (Waliszewski et al., 2024). The dynamics of this segment are strengthened by demographic transformation, characterized by a generational change, which significantly impacts the expansion of the BNPL market. This shows that the foundation of BNPL's success lies in its adaptability and alignment with the needs of the modern consumer in the digital age.

## **2. METHODOLOGY**

The research process consisted of several stages. The considerations were related to the BNPL market in Poland. It began with a thematic literature review, focusing on searching for the phrases "buy now, pay later" and "BNPL" in both Polish and English using Google Scholar. Due to the limited number of articles on this subject, a broader search was conducted using Google to gather additional information on BNPL in Poland. Additionally, data from the credit reference agency in Poland (BIK, Biuro Informacji Kredytowej) and the Cashless.pl service, which focuses on modern financial technologies, were utilized.

Through synthesizing the collected information, the study provided a comprehensive overview of BNPL in Poland. This included a determination of characteristics of BNPL market in Poland, identification and exploration of determinants of the use of BNPL by Polish consumers, and examination of prospects and risks of using BNPLs. Next, the study delves into reflections on BNPL services, presenting a thorough analysis of their characteristics and the significant risk of excessive debt they pose, particularly within the context of widespread consumerism. These reflections aim to shed light on how BNPL services operate, including their convenience, accessibility, and appeal to a broad range of consumers. However, alongside these positive aspects, the study emphasizes the potential financial pitfalls associated with BNPL usage. By examining these dynamics, the study highlights the dual nature of BNPL services: while they offer valuable financial flexibility, they also present significant risks if not used responsibly. Next, reflections on BNPLs do present the BNPL characteristics and the risk of excessive debt it poses in the context of widespread consumerism.

### 3. RESULTS

#### 3.1. Characteristics of BNPL market in Poland

The legal environment significantly determines the development prospects of the BNPL segment in Poland. Regulations governing consumer credit and the activity of lending institutions are constantly being modified. The BNPL segment is influenced by regulations related to the so-called anti-usury law, and these prospects will also be shaped by potential changes within the amendments to the CCD (Consumer Credit Directive) (Pisany & Gromek, 2023).

It is noteworthy that BNPL payments require the customer's credit analysis before granting a loan, which can be time-consuming and require additional resources. There is also a risk associated with disclosing personal data, such as PESEL (Polish national identification number) or the customer's residential address, which can be dangerous, especially when using this form of payment on unknown websites (Bagniewski, 2023). However, similar risks also accompany other forms of online loan and credit applications. It is therefore essential for BNPL providers to prioritize data security to protect consumer information. Equally important is educating consumers about the potential risks associated with sharing personal data online. Consumers should be informed about how to safely navigate these services, ensuring they make secure transactions and understand the implications of data sharing when using BNPL options.

BNPL finds broad application primarily in the e-commerce sector. FinTech companies also enable the use of BNPL not only for everyday online purchases but also for paying bills (Cashless.pl, 2021). The Swedish FinTech Klarna (2024), considered a pioneer in the BNPL field, operates in 45 markets and collaborates with over half a million merchants, including well-known brands such as H&M, Samsung, and AliExpress, processing two million transactions daily. In 2023, alongside Klarna, several other significant BNPL operators were active on the Polish market (Gut, 2023b): Allegro Pay, Twisto, PayPo, Alior Pay, Kupuj Teraz, PKO Płacę Później, P24 Now, Pay Smartney, Revolut Pay, BLIK Płacę Później.

The rising number of BNPL platforms in Poland reflects the consumers' growing interest in financing solutions that offer flexibility and can be customized to meet their individual purchasing needs (Gut, 2023a). The popularity of BNPL as a payment deferral method is primarily fueled by the straightforward application process, which provides a significant advantage in terms of convenience over traditional loan options (BIK, 2023). Moreover, while BNPL loans tend to be more costly than standard consumer bank loans, they are also more accessible, flexible, and tailored to meet the needs of consumers across different generations (Waliszewski & Gębski, 2024).

### 3.2. Determinants of the use of BNPL by Polish consumers

Deferred payment options, while attractive, come with certain risks. They may encourage consumers to take on excessive debt, which can lead to difficulties with timely repayments. Additionally, institutions providing these services often impose extra fees for late or missed payments, adding further strain on consumers' budgets.

On the other hand, BNPL offers several advantages, such as the ability to make immediate purchases without needing sufficient cash or available credit. This enhances purchase accessibility, supports flexible liquidity management, and allows payments to be split into installments or scheduled for a specific repayment date, simplifying budgeting (Waliszewski et al., 2024). From the retailer's perspective, this payment method can stimulate customers to buy more, potentially driving higher sales. Chart 1 presents the determinants of BNPL use, as outlined by BIK (2023).

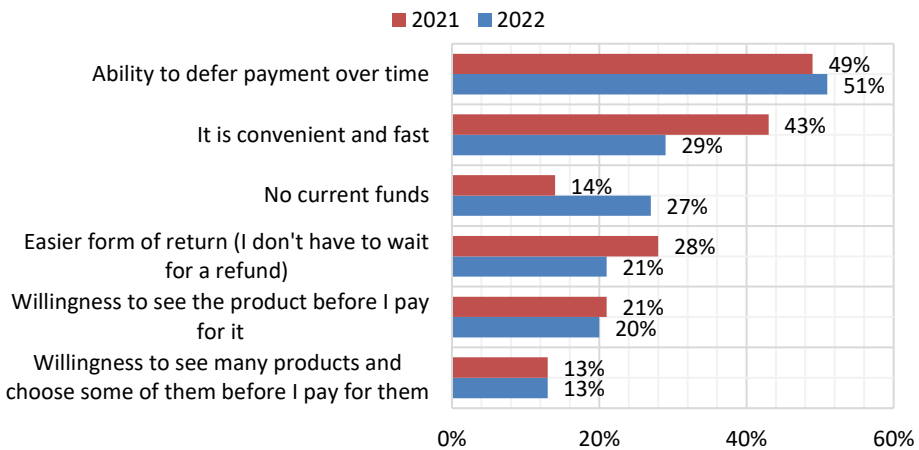


Chart 1. Determinants of BNPL use

Source: own study based on BIK (2023).

In 2022, the main motivation for 51% of respondents to use BNPL services was the opportunity to defer payment. This is in line with BNPL's core idea of enabling customers to extend the payment date. Additionally, a significant percentage of users choose BNPL as a strategy to expand their consumer options by ordering more products on a trial basis, without having to pay immediately. Payment for these products only occurs once the customer decides to purchase them.

Furthermore, for 29% of respondents in 2022, it was crucial to organize deferred payments in a convenient and time-saving way. As many as 20% of respondents noted that deferred payment option also allows to view or try on a product available online before making payment. A similar percentage of respondents (21%) emphasize that it is also easier to return purchases, as there is no need to wait for a refund. As many as 13% of respondents marked that they want to select one or part of many products. Clothing ranks as the top product purchased with BNPL, as it offers the opportunity to order multiple sizes of a garment on deferred payment. The customer pays for only the item they keep after trying on and returning the rest.

An extremely relevant factor for 27% of those using the BNPL option is the lack of available funds at the time of purchase. It is worth noting that the percentage of such customers doubled in 2022 compared to 2021, when it was only 14%. The economic situation of Poles and the rise in prices may be the additional factors prompting the use of deferred payment. This clearly shows that BNPL is becoming an increasingly attractive and popular way to finance consumption, providing a potential alternative to debt. A study by Bagniewski (2023) suggests similar conclusions, revealing that respondents associate BNPL usage with factors such as:

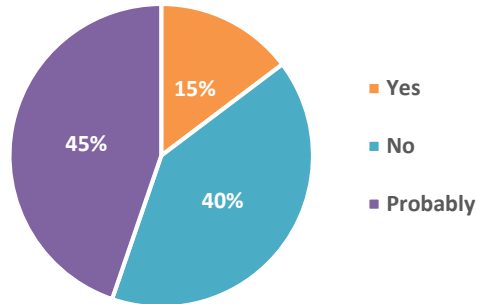
- confidence that the seller will not commit fraud;
- temporary inability to log into online banking;
- building a positive credit history;
- accidentally selecting a deferred payment option, and
- access to free delivery.

Adamek and Solarz (2023) identified key factors influencing consumer adoption of digital lending services, including perceived trust, risk, usefulness, and financial health. Their findings indicate that perceived ease of use and innovation do not significantly impact consumers' attitudes toward adopting these services. Additionally, in another study, Solarz and Adamek (2023) demonstrate that trust and personal innovativeness are statistically significant factors in the decisions Poles make about using digital loan services provided by FinTech lenders.

### **3.3. Prospects and risks of using BNPLs**

The increasing availability of BNPL services and their growing competitiveness with traditional deferred payment options indicate promising prospects for further growth in this sector. Bagniewski (2023) conducted a survey on respondents' future intentions to use deferred payments. The results are presented in Chart 2.





N = 570

Chart 2. Potential future use of BNPL

Source: own study based on Bagniewski (2023).

The largest group of respondents, nearly 45%, indicated that they were open to the possibility of using BNPL payments in the future. This openness suggests that these individuals might consider this option if certain conditions are met or if they acquire more understanding of the benefits and potential risks associated with deferred payments.

The second largest group, accounting for approximately 40% of respondents, responded negatively to the prospect of using BNPL in the future. This trend may reflect a preference for traditional payment methods, apprehension about possible fees or conditions tied to deferred payments, or simply a lack of interest in taking on new financial commitments.

The remaining 15% of respondents explicitly confirmed their intention to use deferred payments in the future. This segment demonstrates a clear interest in utilizing BNPL, likely motivated by a desire for enhanced financial management. They may view BNPL as a means of achieving greater financial flexibility and control over their household budget, allowing them to make necessary purchases by spreading costs over time and facilitating better expense planning.

BNPL services thus have a potential to continue shaping their appeal among online shoppers. Despite challenges in perception and adoption, there is a considerable potential for broader BNPL uptake in the future, as indicated by the significant interest from respondents open to exploring new financing options.

As BNPL remains a relatively new service, consumers may not always fully understand the distinctions between traditional payment methods and purchase financing through credit. Before committing to BNPL, it is crucial for consumers to carefully review repayment terms and assess their repayment capacity. Additionally, they should be mindful that the overall cost of deferred payments may increase due to credit interest or late fees.

#### 4. DISCUSSION

The development of consumption culture is linked to the pursuit of possession. Purchases can be made not only with available financial resources but also by leveraging debt. The widespread availability of credit and loans fuels overconsumption, often prompting individuals to take on excessive debt through both banking and non-banking channels. As Zalega (2012: 23) notes, irrational use of debt opportunities can lead to dangerous debt spirals. Consequently, the creation of needs and desires and the pursuit of satisfying them are key contributors to insolvency. When individuals choose to maintain a high level of consumption, they often respond more to subjective influences than to genuine, objective needs (Reczuch, 2020).

Excessive household debt is both a social and economic issue (Gębski, 2013). This problem is particularly acute in highly developed countries (Błądowski & Iwanicz-Drozdowska, 2010), where consumer credit is more accessible and widely used. In these environments, materialistic attitudes and behaviours directed toward consumerism can often lead to excessive debt. This debt accumulation can result in severe consequences such as insolvency and financial exclusion, where individuals are unable to meet their financial obligations and subsequently lose access to mainstream financial services (Reczuch, 2020).

Financial education and literacy play a crucial role in addressing these risks. A sufficient level of economic and financial knowledge enables consumers to make informed decisions about the financial products and services they use. This knowledge helps individuals understand the terms and conditions of credit agreements, recognize the long-term implications of their borrowing choices, and manage their finances more effectively (Warchlewska, 2020). Thus, enhancing financial literacy is a key strategy for promoting responsible financial behavior and preventing the adverse effects of excessive debt.

BNPLs, on the one hand, can improve access to finance and help reduce credit exclusion (Waliszewski et al., 2024). They provide a convenient option for consumers who may not qualify for traditional credit, thereby promoting greater financial inclusion. However, on the other hand, the easy access to these services can encourage consumers to purchase more products than they would otherwise. This effect is particularly pronounced in online shopping environments, where the digital format reduces the perception of the real cost, encouraging impulsive spending. Misuse of BNPL services, like traditional forms of credit, carries the risk of excessive debt. The appeal of immediate gratification without an immediate financial outlay can lead consumers to accumulate debt beyond their means to repay.

In the context of discussions on BNPL, it is also important to consider other risks associated with its use, as the further expansion of these services depends on

their ability to meet expectations similar to other digital lending services (Adamek & Solarz, 2023). This particularly concerns trust in BNPL, which is reflected in the ability to mitigate these risks. Like any other digital service, BNPL requires the provision of personal data, which poses a threat to its security. Therefore, BNPL providers must place a strong emphasis on ensuring data protection. Additionally, consumers themselves should remain cautious to avoid fraud and be aware of the risks, so as not to fall victim to phishing.

#### **4.1. Limitations of the study**

The research limitations associated with analysing the BNPL market in Poland poses a challenge, as research limitations are broad. First, BNPL is a relatively new service in the financial sector, which has led to a scarcity of data sources and academic studies on the topic. This novelty limits the availability of literature in both Polish and English, making it challenging to conduct a comprehensive analysis and fully understand the service's operations and effects.

Additionally, BNPL has yet to achieve widespread use in Poland, resulting in a relatively small user base. This makes social research challenging, as reaching BNPL users is difficult – they are fewer in number, may be hard to identify, and could be reluctant to participate in research.

#### **4.2. Directions for further research**

The novelty of BNPL calls for a deeper understanding and ongoing research to track the BNPL market's development, not only in Poland but globally. As this financial service continues to evolve, it will be essential to monitor its growth, adoption rates, and impacts on consumer behavior and financial well-being. Future research should aim to gather more extensive data, explore the long-term effects of BNPL usage, and identify best practices for consumer education and regulation. Expanding research efforts will provide greater insights into the benefits and potential risks associated with BNPL, ensuring its positive contribution to the financial landscape.

A particularly important area of study may be the link between the risks of BNPL usage, providers' ability to mitigate these risks, and consumers' sense of trust. Verifying the hypothesis that positive BNPL experiences can significantly strengthen consumer trust in these services could yield interesting findings. Another hypothesis, forming the foundation of this article, is to examine whether broader access to credit through BNPL increases the risk of excessive debt. Proposed research could explore if this risk applies primarily to individuals already predisposed to high debt or if BNPL inherently raises the risk of over-indebtedness across a broader consumer base.

## **CONCLUSIONS**

BNPL services represent a new step in making credit more accessible and convenient for consumers, providing flexibility in repayment and enabling purchases without an immediate impact on the budget. However, research indicates a risk of excessive debt linked to these services. Consumerism is one of the main drivers behind BNPL usage. Modern consumption culture promotes constant acquisition of new products, often without regard for actual needs or financial means. In this context, BNPL serves as a tool that enables consumers to fulfill consumerist desires by purchasing on credit without immediate repayment.

Nonetheless, using BNPL can lead to excessive debt, particularly when consumers adopt irresponsible approaches to repayment. The ease of access, simplicity of use, and lack of immediate consequences can lead consumers into a debt spiral. Additionally, limited economic and financial knowledge may prevent consumers from recognizing the risks associated with debt, resulting in impulsive purchases and uncontrolled spending that can cause long-term financial problems.

The expansion of the BNPL sector could also impact the lending market and traditional financial institutions. The rise of FinTech companies offering BNPL services might pressure conventional banks to innovate to retain customers. However, increased competition over time could lead to relaxed credit standards, elevating risk within the financial sector.

Understanding these risks is crucial for both consumers and policymakers. Consumers need to be aware of potential pitfalls and manage their BNPL usage responsibly. Policymakers should also consider these risks when formulating regulations and guidelines to protect consumers from excessive debt. Promoting financial literacy and responsible borrowing practices can help mitigate these risks, ensuring that BNPL remains a helpful financial tool rather than a source of financial hardship.

In conclusion, BNPL services provide an innovative solution that enhances credit accessibility and makes shopping more convenient. However, it is vital for consumers to consider the costs and implications of these services and to use them responsibly, according to their financial means. Additionally, industry regulation and oversight may be necessary to ensure consumer protection and maintain financial market stability.

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## O ZAGROŻENIACH BEZPIECZEŃSTWA EKONOMICZNEGO W SPOŁECZEŃSTWIE RYZYKA

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### ON THREATS TO ECONOMIC SECURITY IN A RISK SOCIETY

#### ABSTRACT

**The purpose of the article.** The aim of the article is to analyze and diagnose economic security in the context of holistically understood social challenges. The main research problem addressed in the article is the intensification of economic threats in the conditions of the transition to financial capitalism and the increasing social costs of the risk of this transition.

**Methodology.** The article mainly uses literature studies, descriptive and narrative methods.

**Results of the research.** Excessive liberalization of financial markets has brought more losses than benefits, the value of work and the idea of full employment have been forgotten. Most people in the world earn their living from income from work, meanwhile the imbalance between the manufacturing and financial sectors has resulted in a decline in income from work and forced the vast majority of workers who want to maintain or increase consumption to take out loans and credits. Consumption is growing, but household debt is growing. The financial sector has grown beyond measure, disturbing the basis for rational decision-making by consumers – based on the actual, real value of disposable income.

**Keywords:** economic security, risk society, financial capitalism.

**JEL Class:** H56, G18, G28.

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## WPROWADZENIE

Rewolucja internetowa zmieniła system kapitalistyczny, zarówno w zakresie produkcji, jak też dystrybucji dóbr i usług. Dzięki zastosowaniu nowoczesnych technologii komunikacji wydaje się, że pokonano barierę czasu i przestrzeni – wielonarodowe i transnarodowe korporacje rozsiane po całym świecie pracują bez przerwy wykorzystując różnice czasu między poszczególnymi strefami czasowymi. Nowe technologie stwarzają nieznane dotąd możliwości, jednocześnie generują nowe ryzyka – kradzież danych, kradzież tożsamości, manipulacja informacją rynkową i inne (Shiller, 2016). Współczesny system kapitalistyczny charakteryzuje się znacznie większym poziomem ryzyka, niż miało to miejsce w poprzednich okresach rozwoju gospodarczego. Można wskazać co najmniej kilka zjawisk, które kształtują ryzyko, takich jak: znaczny rozwój sektora finansowego, ograniczenie działalności przemysłowej w krajach wysoko rozwiniętych, zmianę roli państw narodowych, duży poziom nierówności ekonomicznych i politycznych w świecie, zmiany klimatyczne i degradacja środowiska przyrodniczego, zmiany modeli konsumpcji. Współczesność charakteryzuje się swoistym chaosem społecznym, stąd w ostatnich latach w literaturze z zakresu nauk społecznych zaobserwować można rosnące zainteresowanie problematyką bezpieczeństwa, pojmowanego nie jedynie jako ochrona przed zagrożeniami o charakterze militarnym czy pochodzących z sił natury. Na bezpieczeństwo patrzymy jako na wartość ekonomiczną, ale także jako dobro o wymiarze etycznym i społecznym. System ekonomiczny, polityczny i społeczny, który powstał jako efekt myśli neoliberalnej stanowi potencjalne źródło zagrożeń dla jednostki i społeczeństwa. Krytyka neoliberalizmu w ostatnich latach jest dość powszechna, wśród ekonomistów i polityków trwa żywa dyskusja nad przyszłym, pożądanym modelem rozwoju gospodarczego. Na poziomie diagnostycznym interesującą propozycją jest koncepcja Becka społeczeństwa ryzyka, która na gruncie rozważań socjologicznych w sposób całościowy i holistyczny charakteryzuje kondycję współczesnego społeczeństwa w fazie późnej nowoczesności. Można zatem postawić hipotezę, że współczesny system gospodarczy i polityczny powinien w znacznie większym stopniu zostać poddany regulacji i kontroli społecznej. Prawdopodobnie ograniczyłoby to ryzyka, a tym samym zwiększyło poczucie bezpieczeństwa dla obywateli, którzy powinni zyskać większą podmiotowość w relacjach z władzą ekonomiczną i polityczną. Bezpieczeństwo systemu społecznego stanowi warunek harmonijnego rozwoju służącego jednostce i społeczeństwu, procesy ekonomiczne w ujęciu antropologicznym są tylko częścią większej całości. Celem artykułu jest analiza i diagnoza bezpieczeństwa ekonomicznego w kontekście holistycznie pojmowanych wyzwań społecznych. Odizolowanie ekonomii od sfery społecznej i politycznej rodzić będzie nieuniknione konflikty i turbulencje systemowe. Zastosowano metodę opisową i studia literaturowe.



## 1. BEZPIECZEŃSTWO EKONOMICZNE JAKO PRZEDMIOT BADAŃ

Bezpieczeństwo ekonomiczne jest przedmiotem zainteresowania zarówno ekonomii, jak i innych nauk społecznych. Wynika to z interdyscyplinarności bezpieczeństwa ekonomicznego, ale także różnych perspektyw badawczych. Realia ekonomiczno-społeczne i polityczne nakazują traktować bezpieczeństwo jako nadrzędną potrzebę człowieka i zbiorowości, rozumianą jako „brak czegoś, co jest niezbędne do zachowania życia, rozwoju, utrzymania roli społecznej” (Stachowiak, 2012: 38).

Bezpieczeństwo jest rodzajem dobra publicznego, o charakterze nierywalizacyjnym, z konsumpcji którego nie można wyłączyć żadnego członka danej zbiorowości. Decyzje o dostarczaniu dóbr publicznych są efektem wyborów publicznych oraz decyzji politycznych (Stachowiak, 2012). Bezpieczeństwo, będąc dobrem publicznym, posiada wspólne cechy z innymi dobrami zaliczanymi do tej kategorii, w tym m.in. użyteczność, jako miarę satysfakcji z konsumpcji. Dostarczenie bezpieczeństwa wymaga odpowiednich środków i związanych z nimi nakładów w czasie. Bezpieczeństwo jako dobro publiczne warunkuje także konsumpcję innych dóbr i usług, stanowiąc dobro podstawowe oraz jednocześnie będąc dobrem komplementarnym w stosunku do wartości objętych przedmiotowo zakresem bezpieczeństwa. Za dostarczanie i wytwarzanie bezpieczeństwa odpowiada państwo w wymiarze instytucjonalnym. Jednym zaś z obszarów bezpieczeństwa jest bezpieczeństwo ekonomiczne (Stachowiak, 2012). Warunkiem skutecznego kształtowania bezpieczeństwa (ekonomicznego) jest suwerenność państwa, w tym przypadku państwa. „Mimo postępującej integracji i dynamiki tworzenia ugrupowań integracyjnych suwerenność pozostaje wyłącznym atrybutem państw i stanowi o istocie państwowości. Nasilenie procesów globalizacji i fragmentacji wywołało pytania dotyczące możliwości i sposobów odpowiedzi na nowe wyzwania i zagrożenia w stosunkach międzynarodowych, w tym dotyczące suwerenności państwa. Dylemat ten odnosi się w głównej mierze do dalszego funkcjonowania międzynarodowego systemu opartego na państwach narodowych i ich zdolności do skutecznego działania w globalizującym się świecie, w rzeczywistości turbokapitalizmu” (Grącik-Zajązkowski, 2011: 234).

Z punktu widzenia analiz bezpieczeństwa ekonomicznego istotne staje się określenie suwerenności ekonomicznej państwa. Niemożność skutecznego wpływu na przebieg procesów gospodarczych czy utrzymanie porządku publicznego, interpretowana jest jako utrata suwerenności. Suwerenność ekonomiczna rozumiana jest jako określona kontrola sprawowana przez władze publiczne nad transnarodowymi przepływami towarów, kapitału, osób i idei (Grącik-Zajązkowski, 2011). Państwo narodowe nadal pozostaje głównym aktorem w zakresie kreowania bezpieczeństwa, w tym ekonomicznego, przy czym zmienia się jego

rola w związku z nasilającym się procesem globalizacji, przechodzącym w hiper-globalizację. Suwerenność danego państwa może być ograniczana w imię tzw. celów wyższych, jak obrona życia i zdrowia zagrożonych mieszkańców w państwach upadłych lub reżimach niedemokratycznych.

Współcześnie pojawiają się nowe, nietypowe zjawiska i procesy ekonomiczne zagrażające stabilności państwa. Dotyczą one takich obszarów jak: zdolność systemu gospodarczego do konfigurowania wewnętrznych i powiązanych ze sobą czynników ekonomicznych, tak aby zapewniły one państwu stabilność; wypadkowa czynników gwarantujących stabilność i rozwój gospodarki narodowej i tych, które mają charakter zakłócający; bilans potrzeb zapewniających stabilność i rozwój gospodarki i możliwości ich zaspokojenia; stan rozwoju gospodarki oraz jej struktur umożliwiających skuteczne przeciwdziałanie negatywnym czynnikom osłabiającym stan gospodarki i stabilności systemu społeczno-politycznego kraju oraz zdolności obronnej; wyobrażenia rzeczywistych i potencjalnych zagrożeń struktur gospodarczych państwa; stopnia podatności do przenoszenia przez dziedzinę gospodarczą państwa oddziaływań mających na celu osłabienie bezpieczeństwa i stabilności państwa (Ciszek, 2013).

Według Księżopolskiego (2012) bezpieczeństwo ekonomiczne to niezakłócone funkcjonowanie gospodarek, to znaczy utrzymanie podstawowych wskaźników rozwojowych oraz zapewnienie komparatywnej równowagi z gospodarkami innych państw. Autor wyodrębnia cztery wymiary bezpieczeństwa ekonomicznego, które są ze sobą logicznie powiązane i zależne, a mianowicie wymiar finansowy, surowcowo-energetyczny, żywnościowy i dostęp do czystej wody. Pojęcie bezpieczeństwa ekonomicznego odzwierciedla nie tylko zgodność (harmonię) określonych wielkości ekonomicznych – makro i mikro, ale także liczne wyzwania i zagrożenia, których pokonanie wymaga wysiłku całego społeczeństwa. Wyzwania i zagrożenia mają swoje źródło zarówno w systemie wewnętrznym danego państwa (mówimy wówczas o wydolności bądź niewydolności systemowej), ale także coraz częściej wynikają z rozwoju i funkcjonowania światowej gospodarki (Stachowiak, 2012). „Bezpieczeństwo ekonomiczne państwa jest to względnie zrównoważony endo i egzogeniczny stan funkcjonowania gospodarki narodowej, w którym występujące ryzyko zaburzeń równowagi utrzymane jest w wyznaczonych i akceptowalnych normach organizacyjno-prawnych oraz zasadach współżycia społecznego” (Raczkowski i Solarz, 2015: 81). Zdaniem K. Żukrowskiej „Bezpieczeństwo ekonomiczne (...), oznacza warunki harmonijnego rozwoju, pozwalającego budować zrównoważony dobrobyt obywateli państwa. (...). W ujęciu makroekonomicznym bezpieczeństwo to stabilność zatrudnienia, niski poziom bezrobocia, przewidywalne perspektywy rozwoju gospodarki, charakteryzujące się płynnością finansową. W ujęciu mikroekonomicznym to wypłacalność gospodarstwa domowego lub przedsiębiorstwa. W obu przypadkach chodzi

o możliwość równoważenia zobowiązań w stosunku do potrzeb w średnim okresie” (Żukrowska, 2013: 35). Bezpieczeństwo ekonomiczne jest to: wypadkowa czynników rozwoju gospodarczego i barier go ograniczających; stan gospodarki i jej struktury oraz relacji gospodarczych umożliwiających skuteczne przeciwstawianie się negatywnym działaniom zewnętrznym, które mogą wpłynąć na stabilność systemu państwa, zakłócić rozwój gospodarczy czy obniżyć potencjał obronny; ogólny stan zależności ekonomicznej, określającej stopień efektywności zewnętrznej ingerencji ekonomicznej w wewnętrzny rozwój gospodarczy; wyraz stopnia podatności danego państwa na przeniesienie przez płaszczyznę gospodarczą – głównie przez transmisję kanałami i mechanizmami zależności ekonomicznych – działań o charakterze politycznym skierowanych na osłabienie bezpieczeństwa państwa (szantaż energetyczny, spekulacje na rynku walutowym i kapitałowym); bilans potrzeb rozwojowych i możliwości ich zaspokojenia (Stachowiak, 2012). Ostatnia z prezentowanych definicji w najpełniejszy sposób oddaje istotę bezpieczeństwa ekonomicznego jako obszaru polityki ekonomicznej państwa, a także sfery stosunków międzynarodowych.

## 2. BEZPIECZEŃSTWO EKONOMICZNE W POLITYCE PAŃSTWA

Z perspektywy bezpieczeństwa ekonomicznego (rozumianego zarówno jako dążenie do ciągłej poprawy pozycji ekonomicznej kraju, jak też dbanie o poziom życia obywateli) wysoki poziom produkcji i jej wzrost – uzyskiwany przez pełne wykorzystanie i stałe powiększanie potencjału ekonomicznego – trzeba uznać za podstawowe zadanie polityki ekonomicznej rządu (Winiarski, 2001). W interesie narodowym leży zapewnienie wysokiego poziomu zatrudnienia, redukcja bezrobocia i stymulowanie działań służących trwałemu podnoszeniu poziomu dochodów i poziomu życia ludności. Odziaływanie na te zmienne pośrednio determinuje także sytuację demograficzną, a powoduje ona, że Polska znalazła się w gronie szybko starzejących się społeczeństw. W perspektywie kilku lat może być to istotną barierą dla powiększania zasobów majątkowych kraju oraz tworzenia bogactwa. W oddziaływaniu polityki ekonomicznej na jej przedmiot, czyli gospodarkę narodową, należy zawsze uwzględniać możliwość wystąpienia zakłóceń w układzie zmiennych niezależnych, takich jak warunki pogodowe, rynki zaopatrzenia w surowce, załamania koniunktury na świecie, wojny, niepokoje społeczne czy zamachy terrorystyczne.

Kształtowanie podstaw bezpieczeństwa ekonomicznego państwa napotyka obecnie na obiektywne trudności związane z procesem globalizacji – w istocie ograniczyła ona realne możliwości szybkiego i skutecznego oddziaływania na gospodarkę. Globalizacja zmieniła kapitalizm i funkcjonowanie rynków, nastąpiło uruchomienie szeregu procesów nie występujących na tak dużą skalę w poprzednich dekadach. Chodzi tutaj m.in. o:

- urynkowanie wielu dziedzin życia społecznego (edukacja, zdrowie, środowisko naturalne),
- rozrost sektora bankowo-finansowego – przejście od kapitalizmu korporacyjnego do kapitalizmu finansowego,
- „ufinansowanie” struktur społecznych i spadek bezpieczeństwa społecznego (Tomczak, 2015).

Jak zauważa Sadowski (2014) na przełomie XX i XXI w. system rynkowy uległ zasadniczym zmianom, które określić można mianem wynaturzenia objawiającego się finansyzacją. Stworzona dzięki paradygmatowi neoliberalnemu swoboda przepływu i inwestowania kapitału finansowego, mająca do dyspozycji rozwinięte formy łączności związane z rewolucją informacyjną, doprowadziła w bardzo krótkim czasie do powstania instrumentów pochodnych, konkurujących ze sobą w określaniu atrakcyjnych form lokowania i pomnażania kapitału. Rozmiary przepływów kapitału osiągnęły wielkość, wobec której obroty handlowe przestały ogrywać istotną rolę. Główną formą działalności ekonomicznej stała się gra giełdowa wielkimi i wciąż rosnącymi kapitałami pieniężnymi. Nową formą działalności stało się szerokie doradztwo finansowe, rozwinęły się firmy ratingowe, które często mimowolnie bądź świadomie uczestniczą w procesie kreowania zachowań podmiotów i instytucji. Sfera realna związana z produkcją i usługami nie zniknęła, ale jej rola stała się podrzędna i uzależniona od systemu zasilania finansowego sterowanego przez gry spekulacyjne (Sadowski, 2014).

Szybki rozwój i globalizacja rynku finansowego w ostatnim trzydziestoleciu zmieniły relacje między instytucjami tego rynku, wiązało się to między innymi z wprowadzeniem na rynek szeregu „innowacyjnych” produktów finansowych – które zachęcały do spekulacji i sprzyjały powstawaniu tzw. „baniak spekulacyjnych”. Na rynku pojawiły się fundusze spekulacyjne – zarejestrowane w rajach podatkowych i wyspecjalizowane w skupowaniu długów na rynku wtórnym, najczęściej znacznie poniżej ich nominalnej wartości, z celem osiągnięcia dzięki nim maksymalnego zysku. Nie podlegają one żadnej kontroli publicznej. Fundusze kupują na rynku wtórnym po znacznie zaniżonej cenie dawne obligacje państwowe (emitowane przez kraje zadłużone). Później, w drodze wieloletnich procesów sądowych domagają się spłaty wierzytelności w wysokości 100% ich wartości (Zigler, 2021).

Innym zjawiskiem związanym z globalizacją była bardzo szybko postępująca deindustrializacja. Szybkie fuzje i wrogie przejęcia, częste zmiany lokalizacji produkcji, nowe formy organizacji pracy, zarządzania – wszystko to spowodowało upadek kultury przemysłowej, kultury korporacyjnej, w której menedżer odpowiadał za stan firmy i ludzi, a korporacja gwarantowała pracownikom odpowiedni poziom zabezpieczeń finansowych. Ekspansja w postaci tworzenia korporacji transnarodowych, pogoń za wysokimi obrotami i zyskami, aspiracje do wszech-

władzy ekonomicznej i wpływów politycznych osłabiły siłę państwa do kształtowania warunków gospodarowania. Rozrost korporacji, wydłużanie łańcuchów produkcyjnych i łańcuchów dostaw w istocie zmniejszyło realny wpływ państw narodowych na gospodarkę, ponadto zwiększyło ryzyko kryzysów i napięć na tle ekonomicznym. Globalizacja zmieniła instytucję państwa i ograniczyła możliwość wpływu polityki na procesy gospodarcze i społeczne. Wpływ globalizacji dokonał się poprzez: szybki i niekontrolowany przepływ kapitału, masowy i równie szybki przepływ informacji, deregulację rynku pracy, „ufinansowanie” życia społecznego. U fundamentów tych zjawisk było zniesienie ograniczeń w przepływie kapitału na przełomie lat 80. i 90. XX wieku. Proces ten został zapoczątkowany wcześniej, a presja rynków na uwolnienie świata finansów spod kontroli demokratycznych rządów zaczęła się już w latach 60. w Stanach Zjednoczonych. Na płaszczyźnie korporacyjnej finansyzacja przejawia się, po pierwsze, zwiększeniem zaangażowania przedsiębiorstw niefinansowych w działalność finansową (Śleszyńska, 2021). Spółki niefinansowe, które zarabiały dzięki produkcji i sprzedaży dóbr i usług, zaczęły czerpać coraz większą część swoich przychodów ze źródeł finansowych. Od połowy lat 70. systematycznie rósł stosunek dochodów kapitałowych (odsetki, dywidendy i zyski zatrzymane z inwestycji) przedsiębiorstw do ogółu ich przepływów pieniężnych. Finansyzacja jest przedmiotem pogłębionej analizy co najmniej od trzech dziesięcioleci. W zależności od podstaw ideologicznych spotyka się trzy poglądy na genezę tego zjawiska. Zwolennicy ekonomii politycznej, wyrastający z marksizmu, uważają, że kapitalizm finansowy wyłonił się jako alternatywny reżim akumulacji kapitału przez rentierów w obliczu stagnacji w dojrzałym kapitalizmie przemysłowym. Brak mechanizmu redystrybucji bogactwa w zaawansowanym kapitalizmie przemysłowym powoduje ich zdaniem, rozziw między konsumpcją ograniczoną dochodami a rozpędzonymi mocami produkcyjnymi korporacji oligopolistycznych. Innymi słowy popyt nie nadążał za podażą. Klasa rentierów zwraca się więc ku sferze finansowej, aby utrzymać istniejącą stopę akumulacji bogactwa. Badacze z nurtu socjologii ekonomicznej upatrują przyczyn finansyzacji w zbiegu szeregu czynników: fala fuzji i przejęć na tle rozczarowujących wyników przedsiębiorstw w latach 70. w., deregulacja amerykańskiego sektora finansowego przez administrację Ronalda Reagana oraz rodzące się wówczas innowacje finansowe, takie jak obligacje śmieciowe. Kończyło się panowanie konglomeratów kapitałowych, charakterystycznych dla krajobrazu korporacyjnego lat 60. XX w., a zaczynała się era skoncentrowanych spółek branżowych, w których wynagrodzenie kadry zarządzającej było ściślej powiązane z wynikami giełdowymi, czyli wartością dla akcjonariuszy. Stosowanie wykupów lewarowanych (wykorzystujących dźwignię finansową) sprzyjało koncentracji własności w rękach inwestorów instytucjonalnych, którzy forsowali szeroko zakrojoną restrukturyzację, a więc redukcję etatów oraz

wyłaczanie ze struktury przedsiębiorstwa tych funkcji, które były albo niezwiązane z podstawową działalnością, albo mogły być taniej wykonywane przez zewnętrznych kontrahentów (początki outsourcingu). W ciągu dekady prawie jedna trzecia spółek przemysłowych z listy Fortune 500 została przejęta lub połączona, tak że w 1990 r. amerykańskie korporacje były znacznie mniej zdywersyfikowane niż dziesięć lat wcześniej. Jeszcze inne spojrzenie proponują przedstawiciele socjologii politycznej. Ci bowiem podkreślają rolę (winę?) państwa, widząc w finansyzacji niezamierzoną konsekwencję reakcji politycznej na kryzys w latach 70. XX w. Pod koniec ery powojennej *prosperity* mieliśmy ich zdaniem do czynienia z trzema kryzysami: społecznym – narastający konflikt między grupami społecznymi, fiskalnym – przepaść między wydatkami a dochodami państwa oraz kryzysem zaufania do rządu. W USA administracja prezydenta Reagana sprytnie przewyciężyła te kryzysy, przerzucając odpowiedzialność za realizację potrzeb społecznych na rynek. Liberalizacja regulacji dotyczących transakcji kapitałowych zaowocowała zwiększoną dostępnością kredytów i napływem kapitału zagranicznego. Jak za dotknięciem czarodziejskiej różdżki, rząd zamienił deficyt w urodzaj, tworząc fałszywe poczucie obfitości zasobów. Krok ten miał doniosłe konsekwencje w postaci gwałtownego wzrostu sektora finansowego i zapoczątkowania ery strukturalnie niestabilnego kapitalizmu finansowego.

W USA w latach 1960–2014 udział finansów w wartości dodanej brutto zwiększył się ponad dwukrotnie, z 3,7 do 8,4%. W tym samym okresie udział przemysłu spadł prawie o połowę z 25 do 12%. Ten sam proces zaszedł w innych wysoko rozwiniętych państwach. W ciągu trzech dekad deregulacji sektor finansowy znacznie wyprzedził realną gospodarkę. Gdy na początku lat 80. zaczęto znosić regulacje, zyski amerykańskich korporacji finansowych ujmowane jako procent całości zysków przedsiębiorstw prywatnych – znajdujące się na poziomie 10–15% przez czterdzieści lat po drugiej wojnie światowej – wzrosły do poziomu 20%, osiągając szczytową wartość 40% na początku XXI wieku (Mazzucato, 2021). Występuje dużo powodów, aby stwierdzić, że system społeczno-ekonomiczny „szpeca” nadal ogromne nierówności dochodowe i majątkowe – wiele ludzi żyje w ciągłym niedostatku, podczas gdy inni opływają w luksusach. Choć nierówności ekonomiczne między gospodarstwami domowymi są w dużej mierze uzasadnione (te wynikające z różnic potencjałów, bodźców, motywacji i produktywności), to nierówności wynikające z nieuczciwych transferów kapitału, niewynikające z realnego wkładu pracy stanowią ważny problem i potencjalny obszar konfliktów społecznych (Shiller, 2016: 268). Pozostaje nierozwiązaną często zagadką, jak ludzie związani z sektorem finansów mogą stawać się w stosunkowo krótkim czasie bajecznie bogaci – nieporównywalnie bogatsi w stosunku do innych ludzi.

Uwolnienie przepływów kapitałowych spowodowało dynamiczny wzrost gospodarczy w wielu krajach poprzez nowe inwestycje, modernizację infrastruktury,

przepływ technologii i jednocześnie lepsze wykorzystanie miejscowych zasobów. Pozytywne efekty uwolnienia przepływu kapitału nie były jednak pozbawione znacznych kosztów. Należą do nich m.in.: wrogie, a czasem niemal darmowe przejęcia własności, masowa prywatyzacja majątku narodowego – wypracowanego przez pokolenia, przejmowanie produkcji konkurencyjnej w celu jej likwidacji bądź zdobycia atrakcyjnych gruntów. Problemem wolnego rynku kapitałowego są przepływy portfelowe, ponieważ szybki przyływ i odpływ dużych sum walut w celach wyłącznie spekulacyjnych destabilizuje gospodarkę poprzez znaczne zmiany płynności na rynku pieniężnym i wahania kursu walutowego (Tomczak, 2015). Kapitalizm finansowy jest nowym „wynalazkiem”, a proces kształtowania tego systemu nie jest zakończony, system ten powinien być w przemyślany sposób ukierunkowany na potrzeby przyszłości. Chodzi o demokratyzację i „uspołecznienie” instytucji finansowych, tak aby instytucje te wywierały pozytywny wpływ na jakość otoczenia (Shiller, 2016). Ponadto znacząco obniżyły się standardy zabezpieczenia społecznego dla zatrudnionych w krajach o średnim i wysokim dochodzie narodowym.

### **3. PROBLEM NIERÓWNOŚCI SPOŁECZNO-EKONOMICZNYCH**

Głównym tematem wielu dyskusji stał się problem niesprawiedliwego podziału dochodów w kapitalizmie finansowym. Rosnące nierówności są przedmiotem troski polityki państwa, a poszukiwanie skutecznych rozwiązań w postaci zaprojektowania odpowiednich systemów dystrybucji bogactwa bez nadmiernego drenowania zasobów kapitału ludzkiego będą w najbliższych latach zadaniem dla władz publicznych. Powiększanie zasobów bogactwa służy w istocie zaspokajaniu rozlicznych potrzeb ludzkich.

W kontekście rozważań o bezpieczeństwie ekonomicznym nie można bagatelizować potrzeb społecznych (jednostkowych). Państwo nie jest bytem abstrakcyjnym, w tym sensie, że musi być wypełnione tkanką społeczną i instytucjonalną. Chcąc tworzyć trwałe podstawy bezpieczeństwa ekonomicznego kraju musimy przyjąć założenie o konieczności przywrócenia znaczenia polityce i polityczności, jako z jednej strony praktycznemu działaniu, z drugiej zaś nośnikowi wartości akceptowalnych dla ogółu społeczeństwa.

Oddzielenie ekonomii od polityki i politycznej motywacji jest nie tylko jałowym wysiłkiem, ale również świadomie stworzoną przykrywką dla rzeczywistej ekonomicznej władzy i motywacji. Jest również głównym źródłem fałszywych ocen i błędów w polityce gospodarczej. Istnieje zatem realna potrzeba tworzenia wiedzy naukowej, która wpisuje się w obszar ekonomii politycznej bezpieczeństwa narodowego – tak zarysowana przestrzeń konsumuje w całości zarówno domenę działalności państwa, jak też uwzględnia wspólnoty ludzkie wraz z ich po-

trzebami, zaś komponent ekonomiczny wprowadza elementy racjonalności wyboru w warunkach ograniczoności zasobów. Badania w ramach ekonomii politycznej bezpieczeństwa narodowego otwierają pola badawcze dla politologów, ekonomistów i socjologów – przedstawicieli dyscyplin tworzących triadę nauk społecznych, ostatnio nadmiernie odseparowanych od siebie.

Współczesny proces gospodarowania oparty jest o ryzyko, przy czym skala ryzyka stała się na tyle wysoka, iż w literaturze można spotkać się z określeniem, iż gospodarkę opanował chaos (Mączyńska, 2018: 34). Dysfunkcjonalność systemu ekonomicznego skłania do refleksji nad modelem ustroju społeczno-ekonomicznego, który w bardziej racjonalny, a zarazem sprawiedliwy sposób nakreślałby ramy funkcjonowania społeczeństwa. Od mniej więcej trzydziestu lat obserwujemy narastającą lawinowo asymetrię w podziale i dystrybucji bogactwa światowego. Realizowana polityka gospodarcza w większości państw nie sprzyja racjonalnemu wykorzystaniu zasobów, w tym potencjału pracy. Kumulacja bogactwa sprzyja zachowaniom spekulacyjnym (nadpłynność skłania do ryzykownych inwestycji bądź zakupów nadmiaru dóbr luksusowych), z drugiej strony uboga część populacji jest pozbawiona szans na poprawę standardu życia, ubóstwo deprawuje w sensie ekonomicznym, ale także etycznym i moralnym. Problem nierówności stał się problemem politycznym – kwestia nierówności jest główną osią konfliktu liberałów i konserwatystów (zwolenników „urynkowienia” całości stosunków społecznych) oraz nurtu lewicowego i chadecji odwołujących się do koncepcji sprawiedliwości społecznej, pomocniczości, aktywnego państwa i redystrybucji (Piketty, 2015: 7–9).

Narastające nierówności w podziale bogactwa są dodatkowo potęgowane radykalnym pogorszeniem standardów pracy – zjawisko przepracowania, niepewności co do zatrudnienia, niestałość umów o pracę i kontraktów, konflikt między pracą z życiem rodzinnym – te wszystkie zjawiska obserwujemy w krajach rozwiniętych. Fetyszyzowanie PKB powoduje wydłużanie ponad miarę dnia pracy, zwłaszcza w krajach preferujących model anglosaski oraz w krajach poddanych rygorowi neoliberalnemu, m.in. Europa Środkowo-Wschodnia. Próby przywrócenia właściwych relacji między życiem zawodowym i rodzinnym, podniesienie standardów ochrony stosunku pracy, upodmiotowienie pracownika spotykają się z krytyką ze strony środowisk neoliberalnych oraz części opinii publicznej. Jak zauważa Davidson wadliwość przyjętych rozwiązań w funkcjonowaniu współczesnej gospodarki wynika z ignorancji elit i odrzuceniu myślenia Keynesa. Nadmierna liberalizacja rynków finansowych przyniosła więcej strat niż korzyści, zapomniano o wartości pracy i idei pełnego zatrudniania. „Cywilizowane społeczeństwo powinno zachęcić swoich obywateli do osiągnięcia perfekcji we wszystkich podejmowanych staraniach. Cywilizowane społeczeństwo powinno jednak także zapewnić obywatelom możliwość pracy i rozwoju umiejętności. (...) wszystkie te cele są łatwiejsze do osiągnięcia w systemie gospodarczym, w którym każdy ma



możliwość pracy i zarobku. W gospodarce kapitalistycznej możliwość otrzymania uczciwego zarobku za uczciwą pracę buduje szacunek do siebie u osoby zatrudnionej oraz u wszystkich członków jej rodziny” (Davidson, 2012: 141). Ekonomia postkeynesowska uznaje rynki finansowe za potencjalne źródło niestabilności, ponieważ kreacja endogenicznego pieniądza może przyczyniać się do cykli wzrostów (boomów na poszczególnych rynkach) lub kryzysów. Pieniądz endogeniczny może sprzyjać powstawaniu baniek na rynkach aktywów. Banki centralne powinny skupić się zatem na polityce antycyklicznej, kontroli makroostrożnościowej bardziej niż na polityce stopy procentowej. Większość postkeynesistów pozostaje sceptyczna wobec zalet międzynarodowych przepływów kapitału. Często sprzyjają one powstawaniu baniek finansowych (m.in. bańki na rynku nieruchomości). Kontrola krajowych uwarunkowań monetarnych wpływa na skuteczność polityki państwa. Proces ten jest wspomagany aktywnymi regulacjami w zakresie zarządzania kapitałem (Stockhammer, 2018: 46–47). Większość ludzi na świecie utrzymuje się z dochodów z pracy, tymczasem zachwianie proporcji między sektorem wytwórczym a finansowym spowodowało spadek dochodów z pracy i zmusiło znakomitą część pracujących chcących utrzymać bądź zwiększyć poziom konsumpcji do zaciągania kredytów i pożyczek. Rośnie konsumpcja, ale rośnie zadłużenie gospodarstw domowych. Sektor finansowy rozrósł się ponad miarę, zaburzając podstawy racjonalnego podejmowania decyzji przez konsumentów – w oparciu o rzeczywistość, realną wartość dochodów do dyspozycji. W ostatnim trzydziestoleciu obserwujemy także sukcesywne wycofywanie się państwa jako regulatora i gwaranta stabilności systemu kapitalistycznego. Podział na mikro i makroekonomię przesłania najbardziej dokuczliwą przyczynę współczesnego bezrobocia w rozwiniętych krajach przemysłowych – upadek starszych gałęzi przemysłu. Choć polityka makroekonomiczna może poprawić lub pogłębić ogólne bezrobocie, to wobec specyficznego charakteru tych gałęzi przemysłu nie jest na nie lekarstwem (Galbraith, 2011: 272). Część badaczy (Rodrik, Luttwak) określa nową postać kapitalizmu mianem turbokapitalizm. Turbokapitalizm uznawany jest za najbardziej zaawansowaną formę kapitalizmu (system bez ingerencji), gdzie nadrzędną zasadą jest zasada efektywności rynkowej, a zysk ekonomiczny równoważny jest zaspokojeniu potrzeb społecznych. To taka odmiana rynku, który pozbawiony jest regulacji rządowych, związków zawodowych, ograniczeń w przepływie kapitału, barier dla prowadzenia działalności gospodarczej. Autorem tego pojęcia jest Luttwak (2000: 5), który turbokapitalizm określił jako system rynkowy, któremu maksymalną efektywność zapewniają: deregulacja, prywatyzacja i globalizacja. Logice gry rynkowej podporządkowane zostały nie tylko procesy gospodarowania, ale także wszelkie procesy społeczne, polityczne i kulturowe – to wszechwładny rynek zapewni maksymalnie efektywne wykorzystanie zasobów i w konsekwencji sprzyjać będzie ogólnoswiatowemu dobrobytowi społecznemu. Jeżeli jedynym kryterium oceny systemu pozostaje efektywność i zysk,

to turbokapitalizm stałby się prawdopodobnie najbardziej pożądanym modelem rynku (Brudnicki, 2013: 143). Dążenie do maksymalnej efektywności przynosi jednak skutki uboczne takie jak: ubóstwo, bezrobocie, wzrost nierówności społecznych, rozpad struktur społecznych, alienację jednostek.

Tabela 1. Różnice między kapitalizmem a turbo kapitalizmem

<b>Kapitalizm</b>	<b>Turbokapitalizm</b>
<p>Gospodarka sterowana, współistnieje przy silnym systemie politycznym, którego zadaniem jest osiągnięcie określonych celów społecznych.</p> <p>Elementy wolnego rynku poddane są kontroli i ograniczeniom ze strony państwa (władza ustawodawcza, wykonawcza, sędziowska).</p> <p>Państwo:</p> <ul style="list-style-type: none"> <li>• wspiera lub ogranicza niektóre gałęzie przemysłu (bezpośrednio – finansowanie lub pośrednio – finansowanie badań naukowych)</li> <li>• ustala zakres importu i eksportu produktów, surowców (cła, limity, bariery handlowe)</li> <li>• reguluje warunki pracy</li> <li>• obejmuje opieką socjalną</li> <li>• dokonuje podziału środków na usługi społeczne (zdrowie, edukacja, kultura).</li> </ul>	<p>Gospodarka wolnorynkowa, pozbawiona jakiegokolwiek kontroli.</p> <p>Utożsamienie efektywności rynkowej ze szczęściem społecznym.</p> <p>Dążenie do deregulacji (brak kontroli państwowej), prywatyzacji (brak własności państwowej) i globalizacji (otwarcie granic handlowych).</p> <p>Szybkie zmiany technologiczne i strukturalne wpływają na sytuację polityczno-społeczną świata.</p> <p>Przyczyną i skutkiem turbokapitalizmu jest przesunięcie władzy w państwach z politycznej na gospodarczą.</p> <p>Podporządkowanie społeczeństwa i państwa jednemu ekonomicznemu celowi, czyli maksymalizacji zysku.</p>

Źródło: Brudnicki (2013: 141).

#### 4. IDEA SPOŁECZEŃSTWA RYZYKA

Studia nad współczesnym kapitalizmem, w tym zwłaszcza naturą kryzysów, które w znacznym stopniu mają swoje źródło w zbyt ryzykownym podejściu do procesu gospodarowania wymagają wyjaśnienia społecznej natury ryzyka. Zachowania społeczne, które w sposób samoistny generują ryzyko, przy braku mechanizmów „zabezpieczających” ze strony instytucji państwa przyczyniać się mogą do narastania zjawisk dezintegrujących i zakłócających harmonijny rozwój społeczno-ekonomiczny, w istocie będą zwiększać brak poczucia bezpieczeństwa. Socjolog Beck uznawany jest za twórcę koncepcji społeczeństwa ryzyka, która sprowadza się do analizy procesów społecznych, w tym gospodarczych z perspektywy generowania niepewności, nieprzewidywalności, tworzenia społeczeństwa zagrożo-

nego skutkami różnych trudnych do przewidzenia i oszacowania ryzyk (ograniczona możliwość asekuracji). W miarę zwiększania rozmiaru produkcji oraz postępu technicznego pojawiają się problemy w postaci kosztów zewnętrznych przechowywania i utylizacji odpadów, zanieczyszczeń, pojawia się problem nadmiernej koncentracji kapitału i władzy, a w związku z tym nasilają się napięcia społeczne i polityczne. Jak zauważa Beck (2005), w obecnej fazie rozwoju pojawia się paradoks neoliberalnego pojmowania państwa. Z jednej strony tzw. rynki finansowe oczekują państwa minimalnego, podporządkowanego regułom konkurencji i otwartego na oczekiwania transnarodowego kapitału. Z drugiej zaś strony efektywnej deregulacji i prywatyzacji sektorów zdominowanych tradycyjnie przez własność publiczną nie można oczekiwać od państwa słabego instytucjonalnie, niezdolnego do sprawnego działania. Państwa silnego oczekuje się zwłaszcza w aspekcie kontroli granic i przepływu osób – następuje swoista brutalizacja stosunków społecznych. Narastająca globalizacja kapitału nie wyklucza uszczelniania granic i intensyfikacji przepływu ludności. Nie jest zatem realne zrezygnowanie z władzy politycznej i autonomii rządów, a tylko niekiedy ich wzmocnienie. Od państwa oczekuje się sankcjonowania niedemokratycznych reguł gry – nieograniczonej wolności dla przepływów kapitałowych i skrupulatnej kontroli nad ruchami ludności zarówno z pobudek ekonomicznych (migracje z peryferii do centrów), jak i politycznych i bezpieczeństwa (terroryzm). Jak pisze Beck (2005: 123) „aby więc osiągnąć cel neoliberalnej rekonstrukcji świata, należy władzę państw zarazem minimalizować i maksymalizować”. Skutkuje to ograniczeniem kontroli społecznej nad ważnymi procesami politycznymi i gospodarczymi.

Istnieje pewna zależność między globalizacją a indywidualizacją nierówności społecznych. W wyniku kryzysów finansowych oraz ich następstw społeczno-politycznych postępuje wykluczenie jednostek i społeczności. Liberalizacja rynków zaostrza konkurencję nie tylko w wymiarze transnarodowym, ale także w ujęciu personalnym – między osobami wykonującymi ten sam zawód, a będącymi przedstawicielami innych narodowości. Granice narodowe są istotne dla osoby posiadającej określoną profesję (urząd), redukują konkurencję i uzależniają ją od spełniania wewnątrzpaństwowych kryteriów kwalifikacji. Kiedy słabną i stopniowo zanikają granice, wzrasta konkurencja i presja rynkowa na rynkach pracy osób tej samej profesji, lecz innej narodowości. Zdaniem Becka powstający „wzorzec nierówności” nosi następujące cechy:

1) Nierówności określone są sektorowo, co znaczy, że bardziej dotyczą jednych sektorów produkcji i usług niż innych – zwłaszcza tam, gdzie głównym czynnikiem jest praca a nie kapitał (migrujący mogą zaoferować swój potencjał pracy, ale nie koniecznie dysponują kapitałem fizycznym).

2) W sektorach przegrywających (konkurencję) nierówności dotyczą w równym stopniu pracę i kapitał. Sytuacja tych, którzy tracą na globalizacji, nie odpowiada klasycznej dychotomii między pracą a kapitałem, a układa się w poprzek

dotychczasowej struktury społecznej, zgodnie z terytorialnym układem immobilności i globalnego nacisku konkurencyjnego.

3) Do grup tracących na globalizacji zaliczyć trzeba część elit politycznych i biurokratycznych, które uznają, iż podstawa ich istnienia zostaje zakwestionowana przez ponadnarodowe organizacje (Unia Europejska, WTO, MFW, ONZ i in.) oraz przez presję ze strony transnarodowych koncernów i instytucji finansowych.

Przeciwnicy postępującej globalizacji i neoliberalizacji sięgają po różne formy sprzeciwu. Znajduje on wyraz w nasilaniu się nacjonalizmów, ksenofobii i fundamentalizmu religijnego, w powstawaniu grup antykapitalistów, ekoterorystów, zwolenników narodowej demokracji i silnego państwa. W istocie Beck twierdzi, iż wytworzone przez globalizację społeczeństwo ryzyka światowego jest społeczeństwem w zarodku rewolucyjnym.

## **PODSUMOWANIE**

W artykule podjęto rozważania nad bezpieczeństwem ekonomicznym w kontekście przejścia do ery kapitalizmu finansowego. Jest to prawdopodobnie kolejna faza rozwoju tego systemu ekonomiczno-społecznego związana z procesem akumulacji kapitału. Proces ten wywołuje turbulencje skutkujące przyspieszonym ograniczaniem działalności produkcyjnej a zwiększaniem się zakresu działalności opartej o finanse – wzmocnieniem nasilenia tych zmian jest wykorzystanie technologii internetowej. Tempo i zakres tworzenia nowej rzeczywistości gospodarczej przynosi także skutki społeczne w postaci społeczeństwa ryzyka, które musi podejmować decyzje dotyczące swojego bytu i przyszłości w oparciu o dane fragmentaryczne i niepewność. Wywołuje to różnego rodzaju zagrożenia potęgowane przez coraz mniej akceptowalne nierówności społeczne i ekonomiczne. Postulowanym kierunkiem zmian jest „uspołecznienie” świata finansów, większy zakres regulacji w odniesieniu do inwestycji ryzykownych, eliminacja podejścia do gospodarki jak do gry w kasynie. Wymaga to z jednej strony bardziej świadomego konsumenta, a z drugiej lepiej przygotowanych, bardziej etycznych decydentów politycznych. Coraz większa presja społeczeństw, zarówno państw wysokorozwiniętych, jak też państw – rynków wschodzących, przyczyni się do większego zakresu regulacji w rynki finansowe. W przypadku braku takich regulacji może dochodzić do coraz bardziej spektakularnych „pęknięć” baniek finansowych, co z kolei rodzić może narastającą frustrację. W teorii ekonomii pożądanym kierunkiem badań wydaje się nowa teoria wartości ekonomicznej. Dysusja ta w ostatnich dekadach straciła impet, a związane to było z „kolonizacją” narracji neoliberalnej – rynek zawsze określa wartość (nawet jeśli generuje to bardzo konkretne koszty społeczne).

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## O ZAGROŻENIACH BEZPIECZEŃSTWA EKONOMICZNEGO W SPOŁECZEŃSTWIE RYZYKA

**Cel artykułu.** Celem artykułu jest analiza i diagnoza bezpieczeństwa ekonomicznego w kontekście holistycznie pojmowanych wyzwań społecznych. Głównym problemem badawczym podjętym w artykule jest nasilenie się zagrożeń ekonomicznych w warunkach przejścia do kapitalizmu finansowego oraz zwiększania się społecznych kosztów ryzyka tego przejścia.

**Metoda badawcza.** W artykule wykorzystano głównie studia literaturowe, metodę opisową i narracyjną.

**Wyniki badań.** Nadmierna liberalizacja rynków finansowych przyniosła więcej strat niż korzyści, zapomniano o wartości pracy i idei pełnego zatrudniania. Większość ludzi na świecie utrzymuje się z dochodów z pracy, tymczasem zachwianie proporcji między sektorem wytwórczym a finansowym spowodowało spadek dochodów z pracy i zmusiło znakomitą część pracujących chcących utrzymać bądź zwiększyć poziom konsumpcji do zaciągania kredytów i pożyczek. Rośnie konsumpcja, ale rośnie zadłużenie gospodarstw domowych. Sektor finansowy rozrósł się ponad miarę, zaburzając podstawy racjonalnego podejmowania decyzji przez konsumentów – w oparciu o rzeczywistość, realną wartość dochodów do dyspozycji.

**Słowa kluczowe:** bezpieczeństwo ekonomiczne, społeczeństwo ryzyka, kapitalizm finansowy.

**JEL Class:** H56, G18, G28.

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# CONSTRUCTION OF DISCRIMINATION MODELS IN PREDICTION OF BANKRUPTCY OF POLISH NON-PUBLIC ENTERPRISES

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## CONSTRUCTION OF DISCRIMINATION MODELS IN PREDICTION OF BANKRUPTCY OF POLISH NON-PUBLIC ENTERPRISES

### ABSTRACT

**The purpose of the article.** The aim of this study is to predict bankruptcy among Polish non-financial firms by constructing discriminant models and comparing the outcomes with prognostic models developed by other Polish scholars. Utilizing financial data from 2017–2021 for 416 companies across the trade, production, and service sectors, this research strives to devise the most effective model for classifying entities into two groups.

**Methodology.** The study employed a discriminant function, a statistical method enabling the classification of objects based on several explanatory variables simultaneously. Two methods for selecting independent variables for the discriminant function were compared using group mean equality tests and Hellwig's method. Additionally, two techniques of winsorization were applied to minimize the impact of outliers on the study results.

**Results of the research.** The study's findings underscore the importance of operational profitability relative to total assets and the logarithm of total assets as key variables in bankruptcy prediction models. Results confirm the significance of industry specificity on the models' classification accuracy. The use of different methods for selecting independent variables for models and winsorization directly impacts classification efficacy. A comparative analysis with models from selected Polish researchers reveals that the models developed in this study achieved a higher level of effectiveness than existing models in terms of classification accuracy.

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**Keywords:** bankruptcy prediction models, winsorization of data, non-financial information, methods of selecting variables for models.

**JEL Class:** C51, C52, C53, G17, G33.

## INTRODUCTION

The article presents the results of predicting bankruptcy among Polish non-public enterprises and compares these outcomes with prognostic models developed by other Polish authors.

The data used in the analysis comes from the EMIS (Emerging Markets Information Service) financial reports from 2017 to 2021, covering 416 enterprises across three sectors: trade, production, and services. Within the scope of the research, 16 discriminant models were constructed. In these models, financial indicators for constructing the discriminant function were selected based on the group mean equality test and Hellwig's variable selection method (Witkowska, 2023: 275–277).

The study differentiated enterprises by industry using a binary-coded non-financial variable. The efficacy of models constructed on raw data was compared with models based on data processed through winsorization, using Tukey's biweight criterion (Pociecha et al., 2014: 67) and the three-sigma rule (Witkowska, 2023: 49) to eliminate the influence of outliers.

The primary goal of the research was to obtain a model with the highest possible classification efficacy for the test sample and to compare the efficiency of the constructed models with those of selected Polish authors who achieved an average classification effectiveness of models in the test sample above 75%. Additionally, it was verified which method of variable selection would prove to be more effective and how the data processing process would impact classification results.

### 1. DISCRIMINANT BANKRUPTCY PREDICTION MODELS IN THE LITERATURE

The literature on bankruptcy prediction models in Poland is very rich. Therefore, it is necessary to mention the most important works of domestic authors (Ptak-Chmielewska, 2021: 41).

Since the introduction of the Z-score model by Altman (1968: 589–609), which first utilized discriminant analysis for bankruptcy prediction purposes, most scientific research has focused on forecasting financial difficulties of companies. In many cases, researchers consider bankruptcy as a critical threshold intended to distinguish between financially distressed firms and those in good condition. The fundamental issue is defining bankruptcy itself, as in models, bankruptcy is often



understood as the inability to continue operational activities – however, it is not related to the legal definition of insolvency. This raises the question of how poorly a company must be managed to be considered bankrupt (Bombiak, 2010: 148; Kokczyński, 2022: 158). In the literature, bankruptcy is defined as a state in which a company is unable to continue operations without external financial support (Pasternak-Malicka et al., 2021: 251) or a state in which the value of a company's liabilities exceeds the value of its assets (Boratyńska, 2014: 21).

Some researchers conceptualize bankruptcy as a stage following the declaration of insolvency, when the debtor's assets are insufficient not only to satisfy creditors' claims but also to cover the costs of the bankruptcy procedures themselves. They define bankruptcy as the ultimate state, when the debtor's financial capabilities are so limited that they prevent any restructuring or negotiation activities with creditors (Kopczyński, 2022: 13). In this work, companies that have filed for bankruptcy in court are considered bankrupt. However, it should be added that Polish authors approach this issue differently. In the work of Gajdka and Stos, bankrupt companies are considered those that have started the liquidation process due to financial situation, entered into a court agreement with creditors, or reached a settlement with the bank under the act on financial restructuring of enterprises and banks (Gajdka & Stos, 1996: 143). In the work of Mączyńska and Zawadzki, enterprises at risk of bankruptcy are considered to be economic entities where symptoms such as negative equity, losses, and loss of liquidity were observed (Mączyńska & Zawadzki, 2006: 12). Meanwhile, in the collective work of Pociecha et al., bankrupt companies are considered those that have declared bankruptcy (Pociecha et al., 2014: 59), and Kopczyński also adopted this way of defining bankrupts (Kopczyński, 2022: 15). The adopted definition of a bankrupt determines which entities will be included in the research group as enterprises at risk of bankruptcy. Different approaches to the definition can lead to the selection of various data sets, which directly affects the representativeness of the research sample and the generalization of research findings. For example, if only companies that have formally filed for bankruptcy are considered bankrupt, the model may be less effective in identifying companies at earlier stages of bankruptcy risk. The literature emphasizes the low classification effectiveness of predictive models based on data describing the financial situation of bankrupts in the years preceding the declaration of bankruptcy by more than two (Pociecha et al., 2014: 61).

The bankruptcy of a company signifies a disruption in its operational continuity and has a significant impact on all stakeholders, including creditors, owners, and suppliers. In extreme cases, the accumulation of so-called bad debts can not only lead to the bankruptcy of individual enterprises but also trigger a cascading effect of bankruptcies among financially interlinked companies, generating another wave of uncollectible obligations and causing a so-called

domino effect (Janus et al., 2022: 72). On the other hand, bankruptcies serve as a form of catharsis for the economy, necessitating the cleansing of the market by eliminating insolvent units that cannot meet the rules and requirements of market efficiency (Mączyńska, 2013: 4). Consequently, there is a need to develop reliable models for predicting financial distress that can timely diagnose entities with financial difficulties. Such models are a crucial informational tool for investors, shareholders, company management, and financial institutions like banks (Shi & Li, 2019: 116).

The diverse conditions under which enterprises operate in various regions are the reason why the issue of bankruptcy prediction cannot be generalized and requires an individual research approach based on the use of empirical data related to a specific economy or group of economies with similar operating conditions (Jaki & Cwiąg, 2021: 3).

Among the most frequently cited works by Polish authors in the field of bankruptcy prediction there are: Gajdka and Stos (1996), Hadasik (1998), Wierzba (2000), Appenzeller and Szarzec (2004), Mączyńska & Zawadzki (2006), Hołda (2006), Wojna (2007), Hamrol and Chodakowski (2008), Pociecha (2011), Pociecha et al. (2014), Kopczyński (2016). It is worth noting that Polish authors also explore alternatives to standard financial indicators, including works such as: Korol (2010), Ptak-Chmielewska and Matuszyk (2017), Ptak-Chmielewska (2021).

## **2. DATA AND METHODS**

### **2.1. Data**

The database contains observations on 416 non-financial enterprises not listed on the capital market. Half of the observations consist of enterprises that have filed for bankruptcy in court (208 observations), while the other half are enterprises able to continue their business operations. For simplification in the study, these enterprises will be referred to as non-bankrupts. The data comes from the EMIS – Emerging Markets Information Service.

The entities included in the study can be divided into three sectors, which are presented in Table 1. The database gathers both financial and non-financial information about the entities under examination. The data is complete, as missing information was supplemented based on reports from the Ministry of Justice's website, from which financial reports of the companies under study for the year and two years before bankruptcy (financial reports from 2017–2021) were downloaded. Reports from the year in which an entity filed for bankruptcy were not included in the database.

Table 1. Number of enterprises included in the research set by industry

Category	Trade	Production	Services
Bankrupts	72	68	68
Non-bankrupts	72	68	68

Source: own study based on enterprise data obtained from the EMIS website.

In addition to financial data from reports, the EMIS database also contains data on calculated financial indicators. However, it was decided to forego using this information due to its largely incomplete nature, as well as significant discrepancies in the calculation methods for the indicators among different entities. Therefore, to minimize additional factors that could disrupt the models, a decision was made to independently calculate all considered financial indicators, selected from six groups: liquidity, indebtedness, profitability, operational efficiency, dynamics, and size and structure, based on the literature (Pociecha et al., 2014: 64–67; Mączyńska & Zawadzki, 2006: 23–24; Hamrol & Chodakowski, 2008: 21–24), totaling 57 financial indicators. Table 2 presents these indicators used in the study. Additionally, a non-financial variable coded as binary, B01 with a value of 1 for the industry and B02 with a value of 1 for services, was implemented in the study.

Table 2. Financial indicators

Indicators	Formula
Liquidity	
P01	Current assets / Short-term liabilities
P02	(Current assets - Inventories) / Short-term liabilities
P04	(Current assets - Short-term liabilities) / Total assets
Indebtedness	
Z01	(Long-term liabilities + Short-term liabilities) / Total assets
Z02	(Long-term liabilities + Short-term liabilities) / Equity
Z04	Equity / Total assets
Z07	(Net income + Depreciation) / (Long-term liabilities + Short-term liabilities)
Z10	(Equity + Long-term liabilities) / Fixed assets
Z12	Current assets / (Long-term liabilities + Short-term liabilities)
Profitability	
R01	Operating income + Depreciation

R02	$(\text{Operating income} + \text{Depreciation}) / \text{Total assets}$
R03	$(100 \cdot \text{Gross profit}) / \text{Net sales revenue}$
R05	$(100 \cdot \text{Net income}) / \text{Equity}$
R07	$\text{Operating income} / \text{Total assets}$
R09	$\text{Gross profit of } t-1 \text{ and } t-2 / \text{Total assets}$
R10	$\text{Net profit} / ((\text{Current assets } t-1 + \text{Current assets } t-2) / 2) \cdot 100$
R12	$\text{Net profit} / ((\text{Current assets of } t-1 + \text{Current assets of } t-2) / 2) \cdot 100$
R13	$(\text{Operating income} - \text{Depreciation}) / \text{Total assets}$
R14	$(\text{Net income} / \text{Current assets}) \cdot 100$
R16	$\text{Net sales revenue} / \text{Total assets}$
Operational Efficiency	
S03	$\text{Inventories} / \text{Operating costs}$
S04	$\text{Inventories} / \text{Net sales revenue}$
S05	$\text{Short-term receivables} / \text{Net sales revenue}$
S06	$\text{Operating costs} / \text{Short-term liabilities}$
S07	$\text{Net sales revenue} / \text{Short-term receivables}$
S09	$(\text{Inventories} \cdot 360) / \text{Operating revenue}$
S14	$((\text{Inventories of } t-1 + \text{Inventories of } t-2) / 2) \cdot 360 / \text{Operating revenue}$
S15	$((\text{Receivables of } t-1 + \text{Receivables of } t-2) / 2) \cdot 360 / \text{Operating revenue}$
S16	$((\text{Short-term liabilities of } t-1 + \text{Short-term liabilities of } t-2) / 2) \cdot 360 / \text{Operating revenue}$
S17	$S14 + S15$
S18	$S17 - S16$
S19	$((\text{Short-term liabilities of } t-1 + \text{Short-term liabilities of } t-2) / 2) / \text{Operating costs} \cdot 360$
Dynamics	
D01	$\text{Revenue of } t-1 / \text{Revenue of } t-2$
D02	$\text{Equity of } t-1 / \text{Equity of } t-2$
Size and Structure	
W01	$\text{Fixed assets} / \text{Current assets}$
W02	$\text{Log} (\text{Fixed assets} / \text{Current assets})$
W03	$\text{Log} (\text{Fixed assets} + \text{Current assets})$

Source: own study based on: Pociecha et al. (2014: 64–67); Mączyńska and Zawadzki (2006: 23–24); Hamrol and Chodakowski (2008: 21–24).

The collected data was subjected to winsorization, a statistical estimation process that involves modifying outlier values to reduce their impact on the analysis results. In this approach, variable values exceeding predefined threshold limits are replaced with those thresholds, thereby making the estimator resistant to the effects of large residuals. This process divides units into a group of data used unchanged and a group of outlier observations, which are modified and included in the sample in an altered form, enabling the estimation of parameters based on such a transformed dataset (Dehnel, 2017: 61–62).

The winsorization process was conducted using various methodologies to assess their impact on the models' classification efficiency. In the first approach, the three-sigma rule was applied to modify the data (Witkowska, 2023: 49), while the second method was based on the application of the Tukey's biweight criterion (Pociecha et al., 2014: 67–68). Both methods of winsorization were applied separately for each set of companies, and it should be emphasized that the discriminant models were also constructed based on raw data.

## 2.2. Methods

For the construction of bankruptcy prediction models, a linear discriminant function was used, which is a statistical method that allows for the classification of objects based on multiple explanatory variables simultaneously according to a specific criterion (Tłuczak, 2013: 424). The form of the linear discriminant function is as follows:

$$Z = a_0 + a_1X_1 + a_2X_2 + \dots + a_kX_k$$

where:

Z – represents the dependent variable,

$a_i$  – are discriminatory coefficients są współczynnikami dyskryminacyjnymi,

$a_0$  – is the constant,

$X_i$  – denotes the explanatory variables.

The selection of variables for discriminant models was based on the test of group mean equality using the SPSS software. This test, conducted through the ANOVA analysis of variance, assesses whether the average values of the variables under study statistically differ between the specified groups (IBM, 2023), in this case, between bankrupt companies and those that remained on the market. The selection criteria for variables into the model were the F statistic values and the significance level p-value, with statistically significant differences considered at a p-value less than 0.05. Variables that met this criterion and showed high F values, indicating strong differences between groups, were selected for further analysis. Although in the study, the lowest possible Wilks' lambda value is desirable (Wojnar & Kasprzyk, 2011: 412–413), this value was not a selection criterion for variables, as the values for most included variables were similar.

After selecting the variables, the construction of linear discriminant functions for various combinations of explanatory variables was initiated. A stepwise forward method was adopted, which allowed for the identification of factors with the most significant impact on classification. As a result of numerous experiments, models that demonstrated the highest classification efficiency were presented. These models were constructed based on variables: R02, W03, and R09, as well as on W03 and R10 variables.

The second method applied for the selection of diagnostic variables was the Hellwig method, aimed at selecting a set of variables that best characterize the phenomenon of bankruptcy while avoiding informational redundancy (Witkowska, 2023: 275–276). As a result of implementing the Hellwig method, variables such as S18, R09, P02, R13, R14, R16, S04, S19, and R10 were selected for the central variable group, and Z02, Z03, R01, R02, R05, S03, S07, W01, W02, D01, Z04, W03, D02, S09 were classified into the isolated variable group. Based on the selected variables, two discriminant functions were constructed, separately for the set of central and isolated variables. All constructed models were presented in Tables 3 and 4.

Table 3. Statistical significance of estimated discriminant functions with variables selected using the progressive stepwise method

Discriminant function equation	Eigen-value	Canonical correlation	$\lambda$	$\chi$	df	p-value
Raw data						
$F01 = 0.217 \cdot R02 + 1.026 \cdot W03 + 0.032 \cdot R09 - 3.322$	0.150	0.361	0.870	46.468	3	0.000
$F02 = 1.043 \cdot W03 + 0.003 \cdot R10 - 3.357$	0.159	0.360	0.863	49.115	2	0.000
Winsorized data – 3 sigma rule						
$F03 = 0.226 \cdot R02 + 1.051 \cdot W03 + 0.023 \cdot R09 - 3.399$	0.154	0.366	0.866	47.754	3	0.000
$F04 = 1.063 \cdot W03 + 0.003 \cdot R10 - 3.415$	0.163	0.374	0.860	50.279	2	0.000
Winsorized data – Tukey's biweight criterion						
$F05 = 0.245 \cdot R02 + 1.238 \cdot W03 - 0.030 \cdot R09 - 3.952$	0.219	0.424	0.821	65.752	3	0.000
$F06 = 1.210 \cdot W03 + 0.002 \cdot R10 - 3.842$	0.226	0.429	0.816	67.736	2	0.000
Raw data						
$F07 = 0.217 \cdot R02 + 1.028 \cdot W03 + 0.034 \cdot R09 - 0.093 \cdot B01 + 0.088 \cdot B02 - 3.326$	0.151	0.362	0.869	46.561	5	0.000

$F08 = 1.045 \cdot W03 + 0.003 \cdot R10 - 0.090 \cdot B01 + 0.133 \cdot B02 - 3.378$	0.160	0.372	0.862	49.344	4	0.001
Winsorized data – 3 sigma rule						
$F09 = 0.226 \cdot R02 + 1.054 \cdot W03 + 0.024 \cdot R09 - 0.102 \cdot B01 + 0.083 \cdot B02 - 3.400$	0.155	0.367	0.866	47.860	5	0.000
$F10 = 1.066 \cdot W03 + 0.003 \cdot R10 - 0.098 \cdot B01 + 0.131 \cdot B02 - 3.435$	0.164	0.376	0.859	50.529	4	0.000
Winsorized data – Tukey's biweight criterion						
$F11 = 0.249 \cdot R02 + 1.249 \cdot W03 - 0.034 \cdot R09 - 0.214 \cdot B01 + 0.066 \cdot B02 - 3.941$	0.222	0.426	0.818	66.397	5	0.000
$F12 = 1.219 \cdot W03 + 0.002 \cdot R10 - 0.191 \cdot B01 + 0.115 \cdot B02 - 3.845$	0.229	0.432	0.814	68.495	4	0.000

Source: own study based on enterprise data obtained from the EMIS website and analysis in SPSS.

Table 4. Statistical significance of estimated discriminant functions with variables selected using the Hellwig method

Discriminant function equation	Eigen-value	Canonical correlation	$\lambda$	$\chi$	df	p-value
$F13 = 0 \cdot S18 + 0.271 \cdot R09 - 0.001 \cdot P02 + 0.028 \cdot R13 + 0 \cdot R14 - 0.018 \cdot R16 - 0.181 \cdot S04 + 0 \cdot S19 + 0.002 \cdot R10 + 0.243$	0.050	0.218	0.952	16.101	9	0.065
$F14 = -0.002 \cdot Z02 + 0.078 \cdot Z03 + 0 \cdot R01 + 0.129 \cdot R02 + 0 \cdot R05 - 0.061 \cdot S03 + 0 \cdot S07 - 0.051 \cdot W01 + 0.358 \cdot W02 + 0 \cdot D01 + 0.034 \cdot Z04 + 0.779 \cdot W03 - 0.001 \cdot D02 + 0 \cdot S09 - 2.133$	0.253	0.449	0.798	73.755	14	0.000
$F15 = 0 \cdot S18 + 0.276 \cdot R09 - 0.001 \cdot P02 + 0.028 \cdot R13 + 0 \cdot R14 - 0.018 \cdot R16 - 0.187 \cdot S04 + 0 \cdot S19 + 0.002 \cdot R10 - 0.129 \cdot B01 + 0.160 \cdot B02 + 0.237$	0.051	0.220	0.952	16.264	11	0.132
$F16 = -0.001 \cdot Z02 + 0.077 \cdot Z03 + 0 \cdot R01 + 0.130 \cdot R02 + 0 \cdot R05 - 0.065 \cdot S03 + 0 \cdot S07 - 0.050 \cdot W01 + 0.357 \cdot W02 + 0 \cdot D01 + 0.035 \cdot Z04 + 0.783 \cdot W03 - 0.001 \cdot D02 + 0 \cdot S09 - 0.182 \cdot B01 - 0.003 \cdot B02 - 2.085$	0.255	0.451	0.797	73.997	16	0.000

Source: own study based on enterprise data obtained from the EMIS website and analysis in SPSS.

The verification of classification accuracy should be performed based on a test set of observations, containing objects that did not participate in the process of estimating parameters of the discriminant function. The process of selecting companies for the sample should be random to avoid errors stemming from a subjective selection (Witkowska, 2023: 318–319).

In the study, observations for the test sample were selected through randomization, using a random number generator in Excel. The effectiveness of the models was verified based on an 80% training sample and a 20% test sample ratio. To maintain the representativeness of industry participation in the study for the entire population, the drawing was conducted separately within each industry: trade, production, and services. This approach allowed for maintaining symmetry between the number of available observations and industry participation. The results of the drawing from each industry were then summed up, creating a balanced test sample that reflects the industry structure of the available database. This should translate into greater reliability and accuracy in verifying the effectiveness of the models.

Such a method of sample selection, unfortunately, still carries the choice-based sample bias. This means a situation in which units are selected for the sample based on prior information regarding the dependent variable. For instance, initially, data concerning a group of bankrupt companies are collected. The probability that units will be included in such a sample depends precisely on the characteristics of the dependent variable. The sample is constructed, for example, by including all the insolvent units, while the rest are selected using a specific matching scheme (Gruszczyński, 2017: 24).

### **3. RESULTS AND DISCUSSION**

Table 5 presents the classification effectiveness of the 16 constructed discriminant models.

The least accurately classifying models, F13 and F15, were constructed using the Hellwig method based on central variables. These models are characterized by an average classification effectiveness of 67.50%. It is important to emphasize their low effectiveness in classifying bankruptcies at 42.50% while simultaneously achieving a very high effectiveness in classifying non-bankruptcies at 92.50%. The low effectiveness in recognizing bankruptcies may indicate a suboptimal selection of variables.

F02, F04, F06, F11, F12, and F16 models stand out in terms of classification effectiveness. F02, F04, and F06 models are based on financial variables and were constructed using a progressive stepwise method based on the test of group means equality. Models F11 and F12 were also constructed using this method but incorporate non-financial information about industries. The independent variables



in F16 model were selected using the Hellwig method, consisting of variables from the set of isolated features. The analysis of these models shows the impact of individual variables on classification effectiveness. Variables such as W03, the logarithm of total assets, and R02, an indicator of operational profitability relative to total assets, appear in the most effective models, emphasizing their significance in assessing the financial condition of companies. Additionally, the use of a non-financial variable that differentiates observations by industry in some models, such as F11, F12, and F16, shows that complementing financial analysis with non-financial information can contribute to increased prediction accuracy.

Table 5. Classification efficiency in the test set

Effectiveness of classification							
Model	Bank-rupts	Non-bank-rupts	Total	Model	Bank-rupts	Non-bank-rupts	Total
F01	70,00%	75,00%	72,50%	F09	67,50%	75,00%	71,25%
F02	70,00%	80,00%	75,00%	F10	65,00%	77,50%	71,25%
F03	70,00%	75,00%	72,50%	F11	72,50%	77,50%	75,00%
F04	70,00%	80,00%	75,00%	F12	65,00%	87,50%	76,25%
F05	70,00%	75,00%	72,50%	F13	42,50%	92,50%	67,50%
F06	70,00%	82,50%	76,25%	F14	72,50%	67,50%	70,00%
F07	67,50%	75,00%	71,25%	F15	42,50%	92,50%	67,50%
F08	65,00%	77,50%	71,25%	F16	75,00%	72,50%	73,75%

Source: own study based on enterprise data obtained from the EMIS website and analysis in SPSS.

The study confirms that both data processing and the methodology of variable selection are crucial for the effectiveness of discriminant models. Models based on raw data, while effective, seem to be slightly less precise compared to those utilizing processed data. Among the two applied winsorization methods, better results were obtained using the method based on the Tukey's biweight criterion. The introduction of a non-financial variable into the models affected their classification effectiveness, but it did not always translate into a clear improvement compared to models based solely on financial variables.

As part of the conducted research, a comparison of the obtained classification results was also made with discriminant models developed by selected Polish researchers. These models, presented in Table 6, were estimated using the data employed in this study. It should be emphasized, however, that the estimation of models by the Polish authors was based on the use of variables indicated by these

researchers, and not on an exact replication of the discriminant functions they proposed. The presented models were based solely on variables available in the collected database, which allowed for their direct comparison with the discriminant models developed as part of the research.

Table 6. Classification efficiency in the test set

Models		Effectiveness of classification		
Authors	Variables	Bankrupts	Non-bankrupts	Total
Wierzba's	Z04, R12, R13, Z12	20,00%	92,50%	56,25%
Hadasik's	P01, P02, P04, Z01, S04, S05	30,00%	92,50%	61,25%
Pogodzińska and Sojak's	P02, R03	12,50%	95,00%	53,75%
Pociecha's (D <sub>1</sub> )	S06, R02, Z10	52,50%	95,00%	73,75%
Pociecha's (D <sub>2</sub> )	Z07, Z10, S06	10,00%	97,50%	53,75%
Mączyńska and Zawadzki's (G)	P01, R07, Z04, Z07	25,00%	92,50%	58,75%

Source: own study based on enterprise data obtained from the EMIS website and analysis in SPSS and subject literature: Pociecha et al. (2014: 109); Mączyńska and Zawadzki (2006: 21); Hamrol and Chodakowski (2008: 21–23).

This analysis aimed to verify the effectiveness of our solutions in the context of existing concepts. Among the models of Polish researchers, Pociecha's model in version D1 showed the highest classification effectiveness, achieving an average effectiveness of 73.75%. A common feature of this model and the developed F06 and F16 models is the R02 variable, which refers to operational profitability relative to total assets. This variable, as it turns out, has a significant impact on classification effectiveness, as confirmed in both Pociecha's model and F06 and F16 models.

## CONCLUSIONS

The study focused on analyzing the bankruptcy prediction of Polish non-publicly traded non-financial companies. The method of variable selection and data processing techniques proved significant, where the application of the Tukey's biweight criterion for data winsorization contributed to the improvement of the models' classification effectiveness. The use of the non-financial B01 and B02 variable to distinguish companies based on their industry had an impact on the accuracy of model classification, though it did not always lead to a clear improvement in classification accuracy. Comparing the accuracy of classification

results of constructed discriminant models with the works of Polish authors revealed significant classification effectiveness, especially for F06 and F16 models, which showed a better ability for precise identification of bankruptcies. This seems to be caused by continuous changes occurring in socio-economic phenomena that may influence the rapid obsolescence of models (Witkowska, 2023: 233). Among the financial variables, the key indicator proved to be R02 variable, relating to operational profitability relative to total assets, indicating that operational profitability can be a strong predictor of bankruptcy risk. Additionally, W03 variable, the logarithm of total assets, suggests that larger companies have a lower probability of bankruptcy, which may reflect the scale effect and greater financial stability of large entities.

The obtained results, however, cautiously challenge the rationale behind constructing models, emphasizing that key variables such as R02 and W03 could themselves serve as criteria for assessing the financial condition of companies. This conclusion may seem contradictory to the literature on the subject (Mączyńska & Zawadzki, 2006: 22–23; Gajdka & Stos, 1996: 147), yet, it is worth noting that there are some authors who have arrived at similar conclusions in their works (Kopczyński, 2016: 385–391; Pociecha et al., 2014: 117–118). Nonetheless, the necessity to include statistically significant financial variables and non-financial information, as well as the careful selection of their processing methods, remains crucial for developing effective predictive models capable of identifying companies deemed bankrupt.

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## KONSTRUKCJA MODELI DYSKRYMINACYJNYCH W PRZEWIDYWANIU BANKRUCTWA POLSKICH PRZEDSIĘBIORSTW NIEPUBLICZNYCH

**Cel artykułu.** Celem badania jest prognozowanie bankructwa polskich przedsiębiorstw niefinansowych poprzez konstrukcję modeli dyskryminacyjnych oraz porównanie wyników z modelami prognostycznymi opracowanymi przez innych polskich autorów. Wykorzystując dane finansowe z lat 2017–2021 dla 416 firm z sektorów handlowego, produkcyjnego i usługowego, badanie dąży do konstrukcji najbardziej efektywnego modelu w klasyfikacji podmiotów na dwie grupy.

**Metoda badawcza.** W badaniu wykorzystano funkcję dyskryminacyjną, która jest statystyczną metodą umożliwiającą klasyfikację obiektów na podstawie wielu zmiennych objaśniających jednocześnie. Porównano dwie metody doboru zmiennych niezależnych do funkcji dyskryminacyjnej za pomocą testów równości średnich grupowych oraz metody Hellwiga. Ponadto wykorzystano dwie techniki winsoryzacji w celu zmarginalizowania wpływu obserwacji odstających na wyniki badania.

**Wyniki badań.** Wyniki badania podkreślają znaczenie rentowności operacyjnej w stosunku do aktywów ogółem oraz logarytmu sumy aktywów jako kluczowych zmiennych w modelach prognozowania upadłości. Wyniki potwierdzają istotność wpływu specyfiki branżowej na skuteczność klasyfikacyjną modeli. Stosowanie różnych metod doboru zmiennych niezależnych do modeli oraz winsoryzacji ma bezpośrednie implikacje dla efektywności klasyfikacyjnej. Analiza porównawcza z modelami wybranych polskich badaczy ujawnia, że modele opracowane w tym badaniu, uzyskały wyższy poziom skuteczności niż istniejące modele pod względem dokładności klasyfikacji.

**Słowa kluczowe:** modele predykcji bankructwa, winsoryzacja danych, informacje niefinansowe, metody doboru zmiennych do modeli.

**JEL Class:** C51, C52, C53, G17, G33.

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## CREDIT BORROWER SECTOR OF ECONOMY AND CREDIT RISK FOR BANKS

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### CREDIT BORROWER SECTOR OF ECONOMY AND CREDIT RISK FOR BANKS

#### ABSTRACT

**The purpose of the article.** Business entities in different industries operate differently. Therefore, different sectors are characterized, among other things, by different profitability, the need for external financing, and, consequently, a different level of risk of default on credit commitments to banks. Borrowers from specific industries may be, from the perspective of banks' interests, better or worse customers and contribute to strengthening or weakening the quality of their credit portfolios.

The purpose of the article is to compare sections of the economy in terms of the credit risk accompanying banks lending to them. The analysis conducted will be used to verify the hypothesis that industries are significantly different in terms of banks' credit risk related to credits they grant.

**Methodology.** The article supplements the literature with a cross-sectional analysis of economic sectors and includes an assessment of the differentiation of each of them in terms of their economic condition and the associated potential risk of banks lending to their respective industries. The first section of the article presents a literature review covering the issue of comparing the risk of operating in different industries, and the second presents the classification of sections of the economy according to the Polish Classification of Activities (PKD). The third part presents data from the National Bank of Poland NBP on the repayment of credits in various industries. The fourth section of the article presents the characteristics of each section of the economy. The size of the operating of each industry, taking into account the size of its revenues and the number of enterprises, as well as the scale of investment and the demand for credit and loans in each section of the economy are presented. The cost level index, debt-to-equity ratio, the

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share of credits and credits of each section in relation to equity are also examined. The relationships between: debt and financial results of sectors, financial costs and credit, and financial costs and net financial results of industries are also characterized in this chapter. In addition, the profitability and liquidity of economic sections were examined. The fourth chapter also analyzed data on bankruptcy and restructuring proceedings opened by section of the economy.

**Results of the research.** The assumptions and results of the analysis of the risk of credit defaults by each section of the economy are presented in the last section of the article. In addition, the results of the analysis carried out in the article are discussed and compared with NBP data on the share of credits in phases 2 and 3 in each industry. The conclusion of the study is that industries are significantly different in terms of credit risk from the perspective of the banks providing them with financing.

**Keywords:** credit risk, sector of economy, bank credit, credit quality, loans quality.

**JEL Class:** G21.

## 1. LITERATURE REVIEW

Banks have important functions in the economy. As Jaworski and Szelągowska (2014) point out, they influence the development of almost all sectors of the economy and the level of investment and consumption in the economy. However, banks, when considering an application for credit granted, must first and foremost assess the credit risk associated with their decisions, and such a risk may be differentiated by the industry of the economy to which a borrower belongs.

There is a number of studies examining the risks associated with entities operating in a particular industry. Zalewska and Sokół (2022) have studied the financial health of companies in the construction industry listed on the Warsaw Stock Exchange under conditions of a changing environment, and have been concerned with measuring the associated level of risk. The industry was chosen by the authors for the study as having significant importance for the economy of each country and the quality of life of society. The study showed that entities in this section of the economy are characterized by a fairly high level of total debt, which is associated with its high capital absorption and, at the same time, a relatively low level of financial risk.

Kamińska and Nowak (2022) have focused on analyzing the risks of doing business in the automotive industry, pointing out the main risks in the form of component unavailability and broken supply chains, and emphasizing the role of effective management leading to risk reduction. The logistics industry was also dealt with by Siciński (2021), focusing on the causes of insolvency of entities in this section. He pointed to dependence on suppliers and connections linking entities in the production chain and competition emerging in the market, as well as buyer power and price flexibility as determinants of insolvency risk in the industry. On the other hand, Boratyńska and Yafremava (2023), conducting



research in a similar area, assess that analyzing the bankruptcy risk of entities in the automotive industry requires the use of a variety of research methods in order to identify warning signals of bankruptcy risk early enough.

Zuba-Ciszewska (2020), on the other hand, focused on a detailed analysis and role of the food industry in Poland. She noticed the problems of this industry, such as the limitations of the absorptive capacity of the internal market, or the issue of increasing import of most types of products and competition in the market.

Nakonieczny et al. (2022) have taken up a topic of assessing liquidity and profitability on the example of the mining and steel industry. Based on an analysis of the situation of selected companies, the authors noted that despite the safe levels of liquidity and profitability ratios in the studied group, they are becoming worse over time (2017–2020). The observed results made the authors conclude that this could "lead to bankruptcy and the slow disappearance of the industry in the domestic market".

Kantor (2021), using the example of the food service industry, showed that even experienced entrepreneurs operating in the sector who are aware of the risks associated with its operation may have difficulty managing risks in extraordinary situations, as presented against the backdrop of the Covid-19 pandemic.

Zemlińska-Sikora (2021) also based her research on the Covid-19 pandemic period when analyzing the IT industry. According to the author, the difficult time of the pandemic opened growth opportunities for the industry, as the time of working remotely gave the IT industry the opportunity to increase sales of products and solutions offered.

The above studies focused on a selected industry and were not conducted in the context of credit risk for banks. This topic was dealt with, for example, by Kokczyński and Witkowska (2020) or Konopka (2021), but not in the context of dividing the economy into industries, but focusing only on the issue of credit risk assessment by banks in connection with financing provided to specific companies.

A cross-sectional assessment of industries was undertaken by Jaki and Kruk (2022). The study, covering the period 2007–2019 and the following categories: fuels and energy; chemicals and raw materials; industrial production and construction; consumer goods; trade and services; health care; and technology, examined the profitability of companies. Its results showed that health care was the worst performer on the list. In other categories, the results were much less varied. The basis for the division of companies was the sector classification according to the Stock Exchange Yearbook. However, the analysis according to this classification does not correspond to that resulting from the categorization of companies' activities according to the industry of the PKD, and focuses only on listed companies.

A comparative analysis by PKD section was completed by Zawadzka (2009), however, only to the extent of covering the importance of short-term liabilities in corporate financing. Moreover, the study covered a distant time period, i.e., 1998–2007.

The risk assessment of individual industries, based on companies listed on the Warsaw Stock Exchange, was carried out by Homa and Mościbrodzka (2017). The authors were concerned with determining the value at risk for individual industry sectors of listed companies. The mining and fuel and energy industries proved to be the most risky. However, the analysis did not cover all PKD industries. An assessment of selected sector indices on the Warsaw Stock Exchange was also made by Konarzewska (2017), focusing on the analysis of the market risk of investments rather than the credit risk of the industry in the context of bank credit granting.

In the literature, it is difficult to find the studies that focus on comparing the operating risks of companies active in different industries. This study presents a characterization of all industries with a focus on credit risk, which is associated with operating in a specific section of the economy and determines the ability of these industries to repay their credit commitments to banks.

## **2. CLASSIFICATION OF ECONOMIC ACTIVITY ACCORDING TO PKD**

The division of various types of economic activity is defined in the Regulation of the Council of Ministers of December 24, 2007 on the Polish Classification of Activities (PKD). Its use is mandatory in statistics, record-keeping and documentation and accounting, as well as in official records and public administration information systems. The division structure comprises five levels, which include, in order from the most general: section, division, group, class and subclass. The most general division includes 21 sections, designated by a single-letter symbol, which are types of activities that, as the Regulation indicates, consist of activities related to each other from the point of view of the traditionally formed, general division of labor. The 21 sections mentioned above are:

1. A agriculture, forestry, hunting and fishing;
2. B mining and quarrying;
3. C manufacturing;
4. D electricity, gas, steam, hot water and air conditioning supply;
5. E water supply; sewage and waste management and remediation activities;
6. F construction;
7. G wholesale and retail trade; repair of motor vehicles, including motorcycles;
8. H transportation and warehouse management;
9. I accommodation and food service activities;

- 10. J information and communication;
- 11. K financial and insurance activities;
- 12. L real estate activities;
- 13. M professional, scientific and technical activities;
- 14. N administrative and support service activities;
- 15. O public administration and defense; obligatory social security;
- 16. P education;
- 17. Q health care and social assistance;
- 18. R cultural, entertainment and recreational activities;
- 19. S other service activities<sup>1</sup>;
- 20. T households employing workers; households producing goods and providing services for own use;
- 21. U extraterritorial organizations and groups.

From the definition that comes from the Regulation, it follows that an operation is involved when factors such as equipment, labor, production technology, information networks or products are combined to produce a specific product or perform a service. An operation is characterized by its input products (goods or services), technological process and output products. In addition, it is worth noting that business entities usually carry out different types of activities. In order to properly classify an entity, it is therefore necessary to determine its leading activity, i.e., the largest share of the indicator characterizing the entity's activity. The Regulation recommends that statistical surveys for determining the predominant activity should be guided by value added<sup>2</sup>.

### 3. NBP DATA ON CREDIT REPAYMENT BY INDUSTRY

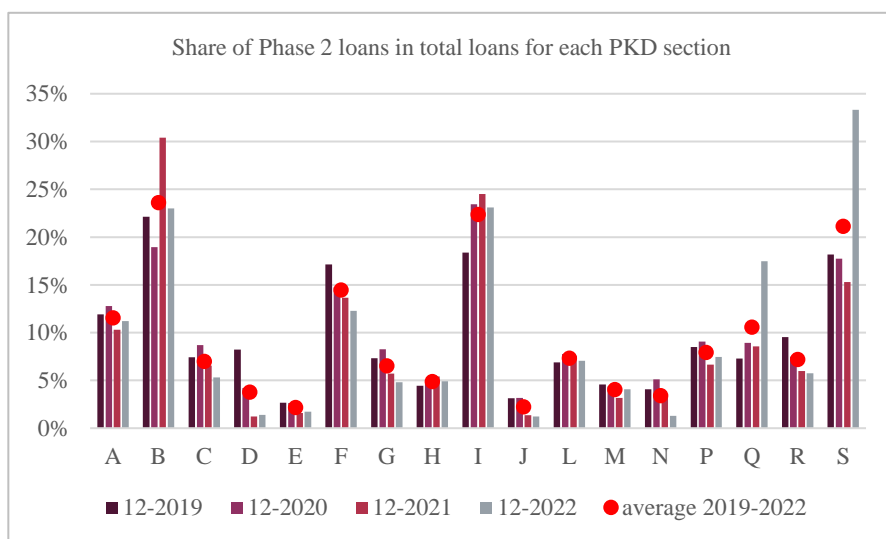
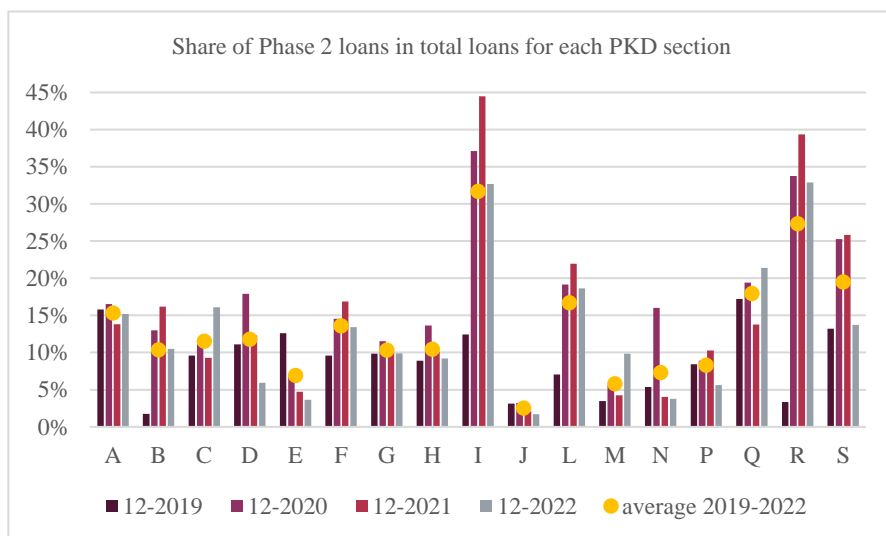
The inspiration for the study on comparing sections of the economy in terms of the credit risk accompanying banks that grant credits to them, and looking for own indicators that would demonstrate that particular industries may have a problem with credit repayment, came from the NBP's financial system stability reports<sup>3</sup>, showing the volumes of credit in banks' portfolios, in phases 2 and 3.

<sup>1</sup> This category includes activities of membership organizations, repair and maintenance of computers and personal and household goods, other individual service activities.

<sup>2</sup> According to the Statistics Poland, gross value added in public statistics "represents the sum of gross value added of all institutional sectors or branches of economic activity. It is calculated as the difference between output and intermediate consumption (production side) or as the sum of employment-related costs, amortization of fixed assets, gross operating surplus/gross mixed income and other taxes decreased by production-related subsidies (income side)" – GUS.

<sup>3</sup> NBP Reports on the stability of the financial system for the periods June 2021, June 2022, June 2023.

Chart 1. Share of phase 2 (top graphic) and phase 3 (bottom graphic) loans in total loans for each PKD section, 2019–2022<sup>4</sup>



Source: based on the NBP Reports on the stability of the financial system for the periods June 2021, June 2022, June 2023.

<sup>4</sup> Data according to the National Bank of Poland including estimates of loan shares based on reporting of so-called large exposures. Data includes share of loans to entrepreneurs and individual farmers.

Phase 2 includes banks' non-performing loan exposures, excluding POCI<sup>5</sup> assets, for which, at a given point in time, the credit risk associated with a given loan has increased significantly since initial recognition. On the other hand, phase 3 includes impaired credit exposures as defined in Appendix A of IFRS 9<sup>6</sup>, excluding POCI assets, where there is evidence/indication of impairment as of a given date. Banks' phase 2 and phase 3 receivables thus show loans where repayment difficulties have occurred or the borrower's economic and financial situation is suspected to be deteriorating. The information on the share of loans in phase 2 and phase 3 by each section of the economy makes it possible to infer the credit risk associated with the financing of particular industries.

As can be seen in Chart 1, the share of loans in phases 2 and 3 changed from year to year. This is particularly noticeable in phase 2 in the accommodation and food service activities (I) section, where the share of phase 2 loans in relation to all loans increased significantly in 2020–2022 with relation to 2019. A similar situation applies to the culture, recreation and entertainment (R) and mining (B) sections.

Analyzing Phase 3, increases in the share of non-performing loans have been recorded in recent years, especially in sections S other services, as well as Q health care.

Considering the average of 2019-2022, the industries with the largest share of loans in phase 2 are as follows:

- accommodation and food service (I) (31.7%);
- culture, recreation and entertainment (R) (27.3%);
- other services (S) (19.5%);
- health care (Q) (18.0%);
- real estate services (L) (16.7%).

In turns, the industries with the largest share of phase 3 loans according to the 2019-2022 average are:

- mining (B) (23.6%);
- accommodation and food service (I) (22.4%);
- other services (S) (21.1%);
- construction (F) (14.5%);
- agriculture (A) (11.6%).

When analyzing the above data, it is important to consider the impact of the Covid-19 pandemic on the economy. As the UKNF<sup>7</sup> points out, wholesale and retail trade (G), real estate services (L) and manufacturing (C) were the most affected by the pandemic, but accommodation and food service activities (I) and

<sup>5</sup> Purchased or originated credit-impaired asset – purchased or originated financial asset(s) that are credit-impaired on initial recognition, as defined in Appendix A of IFRS 9.

<sup>6</sup> International Financial Reporting Standard 9.

<sup>7</sup> UKNF information on the situation of the banking sector in 2020.

construction (F) also suffered. The data mapped information on the industry structure of loans covered by non-statutory moratoria in 2020<sup>8</sup>.

As mentioned above, the data from the NBP reports became the motivation for conducting our own research, which is presented in Chapter 5. In this chapter, the results of own analysis are also compared with the data from the NBP reports.

#### **4. CHARACTERISTICS OF SECTORS**

In the article, the sections of the economy are presented in different terms to best reflect their nature. Not all the sources used in the study provide information on each of them. In addition, the various sources publish information in different terms, as noted later in the paper.

In the article, the term "section" of the economy is used interchangeably with the terms "industry" or "sector", which are not mentioned in the aforementioned PKD Regulation, but are commonly used phrases for a specific group (i.e., a section) of economic activity.

What is excluded from the analysis is the section of financial and insurance activities (K), which includes banks, i.e., entities whose risk exposure to financing other industries is examined in the article.

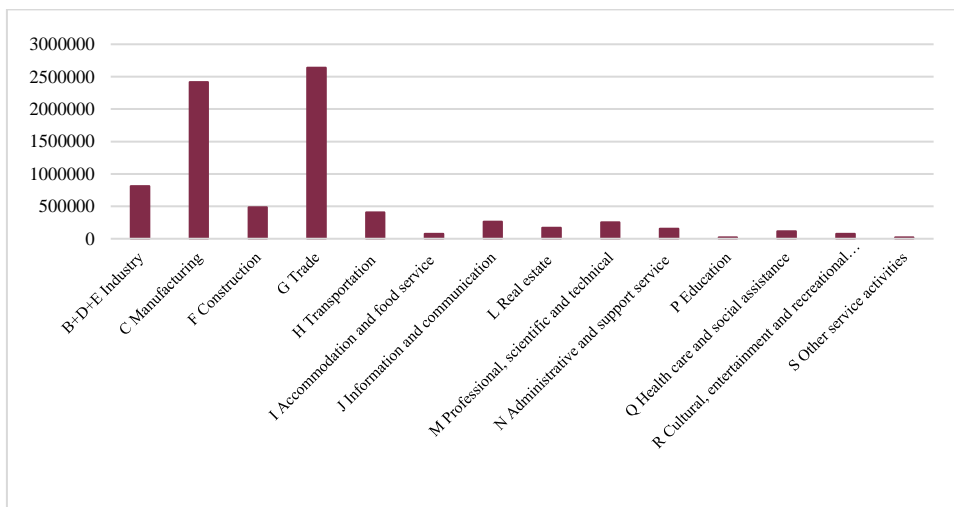
##### **4.1. Revenue volume and number of operators by industry**

It is useful to start characterizing industries by determining their size. For this purpose, the revenue data of each industry was collected and presented in Chart 2. In 2022, the largest revenues were generated by trade and manufacturing, clearly standing out in this category compared to other industries. These two sectors together accounted for two-thirds of the total revenue of all analyzed industries. With the revenue data, it is also worth comparing information on the number of entities operating in each industry (Chart 3). Trade is again the leader in this category, with 20% of entities concentrated in this industry, followed by construction (15%) and professional, scientific and technical activities (14%, with a 3% share of total industry revenues). Construction, the second largest industry in terms of revenue, is only 5th in terms of the number of entities clustered in an industry. Therefore, it can be seen that various industries have quite different characteristics, primarily characterized by different degrees of fragmentation.

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<sup>8</sup> Banks temporarily suspend the requirement for customers to repay capital installments.

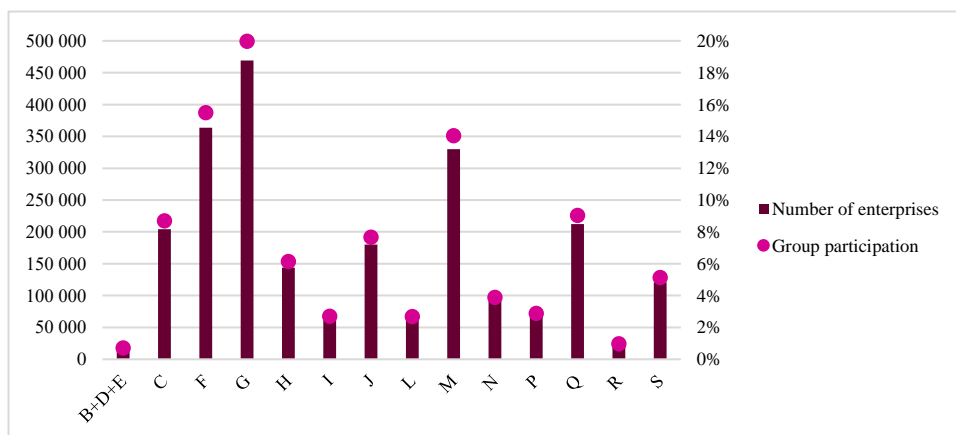
Chart 2. Revenue volume by industry (PLN million), 2022



\* Data on industry, i.e., sections B+D+E, are given collectively without a split into individual industries, only with the separation of manufacturing, i.e. section C.

Source: own study based on GUS Report data.

Chart 3. Number of enterprises by industry (left axis), % share of total industries (right axis), 2022

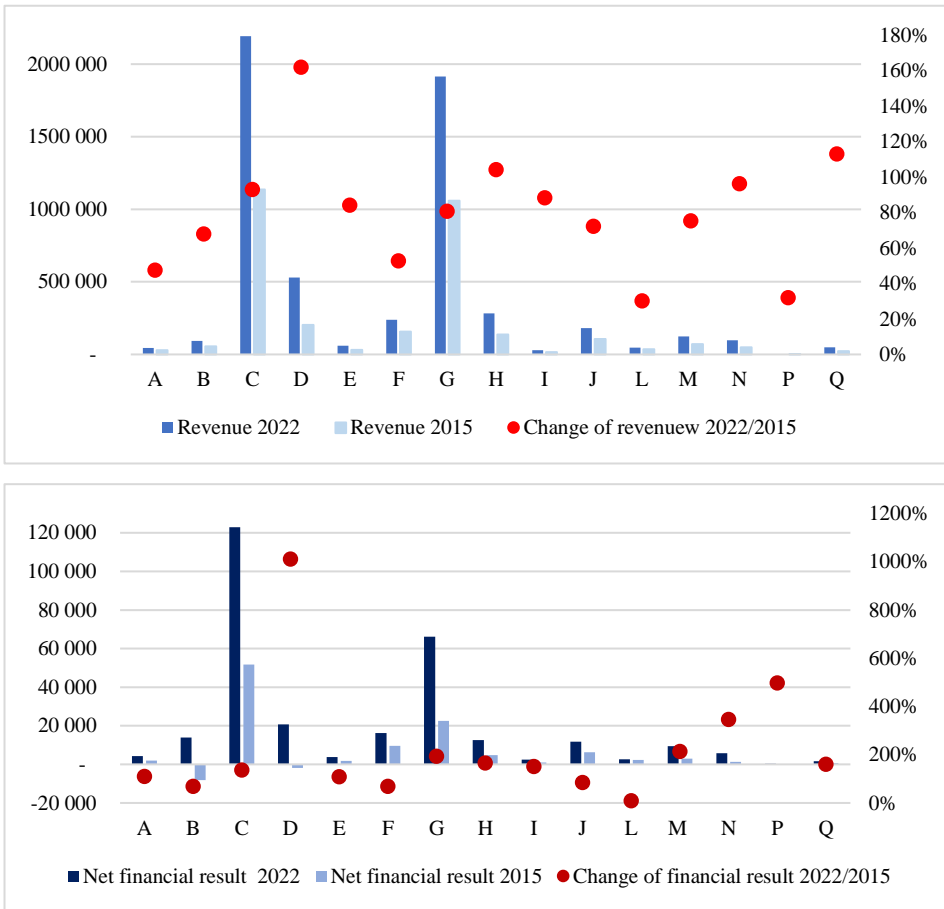


\* Data on industry, i.e., sections B+D+E, are given collectively without a split into individual industries, only with the separation of manufacturing, i.e., section C.

Source: own study based on GUS Report data.

For evaluating industries, it is not only the value of revenues that is important, but more significant are the financial results achieved by them, as well as the change in both values over time. Comparing the years 2022 and 2015, it can be seen that revenues in all industries increased, but this took place at noticeably different tempos (Chart 4 top graphic). Quite similar were the changes in relation to net income (Chart 4 bottom graphic).

Chart 4. Revenue and change of revenue 2022/2015 (top graphic);  
net financial result and change of net financial result 2022/2015 (bottom graphic)



Source: Statistical Yearbook of the Republic of Poland, 2023<sup>9</sup>.

<sup>9</sup> The data is for non-financial enterprises with 10 or more employees. The data does not include entities engaged in banking, brokerage, insurance, as well as investment and pension



Table 1. Ratio of financial result growth to revenue growth

Section	A	B	C	D	E	F	G	H
Financial result/ Revenue	2,33	1,02	1,48	6,25	1,31	1,31	2,41	1,60
Section	I	J	L	M	N	P	Q	.
Financial result/ Revenue	1,72	1,18	0,35	2,84	3,60	15,52	1,42	.

Source: Statistical Yearbook of the Republic of Poland, 2023<sup>10</sup>.

To assess the situation from the perspective of banks, it can be noted that a high revenue growth is perceived positively, while small changes in revenue growth can be alarming and signify a low growth potential of industries and decreasing ability to settle their liabilities relative to other sections. It is even more important to assess whether revenue growth over time is followed by an increase in net income, i.e., how effectively industries are able to use the growth potential. The most favorable translation of revenue dynamics into profit dynamics (see Table 1) can be observed for the industries of education (P), energy generation and supply (D), administrative services (N), professional, scientific and technical activities (M) and agriculture (A).

Comparing 2015 with 2022, it can be observed that all sectors recorded increases in both revenue and net income over time, but the lowest revenue increases occurred in the real estate services (L), education (P), agriculture (A), construction (F) and mining (B) sectors.

In contrast, the lowest growth over time in net income was in the real estate services (L), mining (B), construction (F), information and communications (J) and agriculture (A) industries.

#### 4.2. Cost level index

When analyzing the efficiency of the industry, it is also worth looking at the cost level index, defined as the relation of costs to revenues (Figure 5). This index is the more favorable the lower values it takes, as it illustrates the share of costs incurred to the value of sales revenues. In this aspect, the best in 2022 was the mining and quarrying industry (B), but it is worth noting that this was also the industry with the worst cost level ratio in 2015. The next industry with the best cost level index was agriculture (A). The highest cost level index, and therefore

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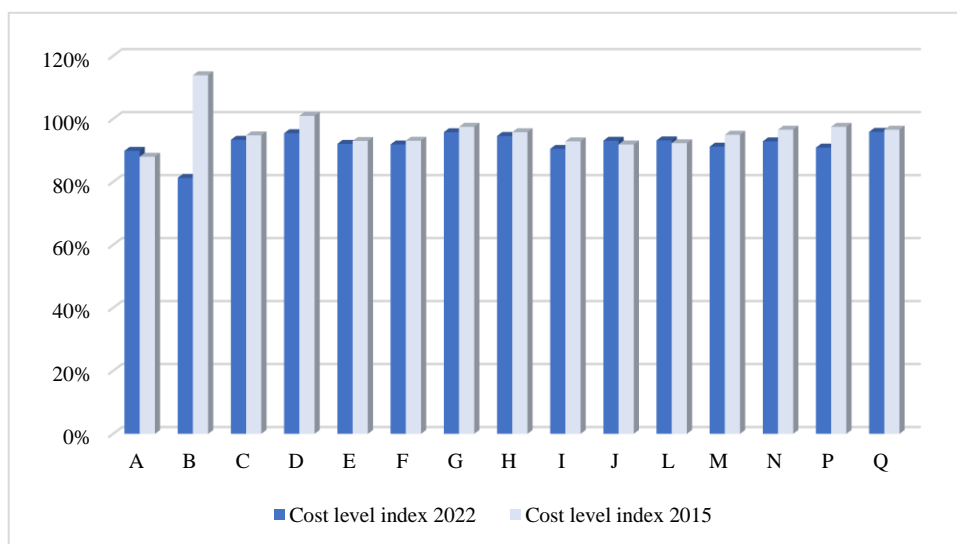
companies, national investment funds, universities, as well as independent public health care institutions, cultural institutions with legal personality and individual farms in agriculture, as well as trade unions, religious and political organizations.

<sup>10</sup> Ibid.

the worst performance in this category, can be observed for the following industries: health care and social assistance (Q), wholesale and retail trade (G) and electricity generation and supply (D).

Immense attention is drawn to mining (B), the least efficient in 2015, which became the leading industry in this regard in 2022. In the remaining sections of the economy, the situation of profitability and economic efficiency as measured by the cost level index was rather stable.

Chart 5. Cost level index, 2015 and 2022<sup>11</sup>



Source: Statistical Yearbook of the Republic of Poland, 2023<sup>12</sup>.

<sup>11</sup> Data does not include the following industries:

- O. public administration and defense; obligatory social security;
- R. cultural, entertainment and recreational activities;
- S. other service activities;
- T. households employing workers; households producing goods and providing services for own use;
- U extraterritorial organizations and groups.

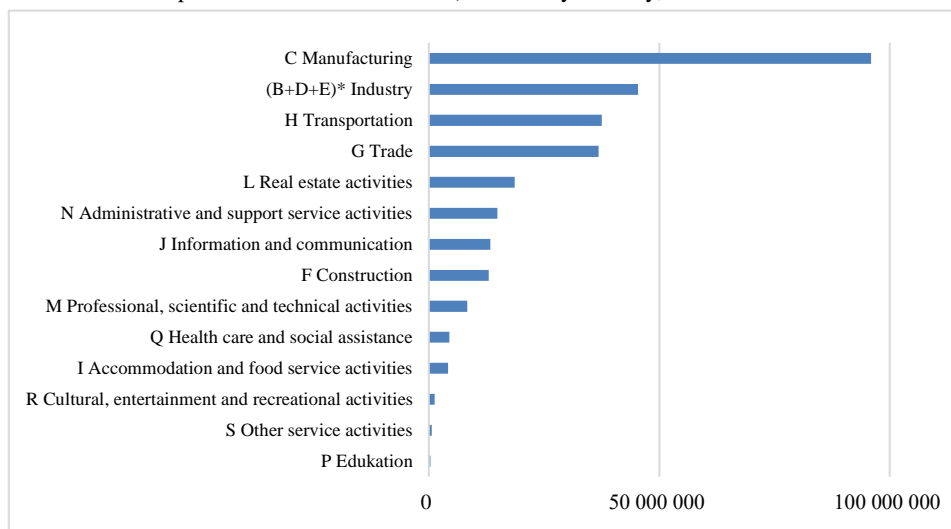
<sup>12</sup> The data is for non-financial enterprises with 10 or more employees. The data does not include entities engaged in banking, brokerage, insurance, as well as investment and pension companies, national investment funds, universities, as well as independent public health care institutions, cultural institutions with legal personality and individual farms in agriculture, as well as trade unions, religious and political organizations.

### 4.3. Investment and credit and loan demand by industry

When analyzing the issue of bank financing of the economy by industry, attention should be paid to the needs of various sections. Information in this regard is provided by GUS data on expenditures on property, plant and equipment incurred by enterprises, i.e., capital expenditures and expenditures on the purchase of used fixed assets (see Chart 6). The largest investment outlays are made in the industrial sector, which includes four sections: mining and quarrying, manufacturing, electricity generation and supply, and water supply and sewage and waste management<sup>13</sup>. The total outlays of these four sections account for approx. 48% of total outlays, with the largest outlays being incurred in the industrial processing sector (33%). High investment needs are also recorded in the transportation and trade industries, 13% and 12% of total outlays, accordingly.

Therefore, it can be noted that the manufacturing industry, which generates the highest revenues in the economy (see Chart 4), is also characterized by the highest level of investment.

Chart 6. Enterprises' expenditures on property, plant and equipment (investments and expenditures on the purchase of used fixed assets) in 2022 by industry, in thousands of PLN



\* Data on industry, i.e., sections B+D+E, is given collectively without a split into individual industries, only with the separation of manufacturing, i.e., section C.

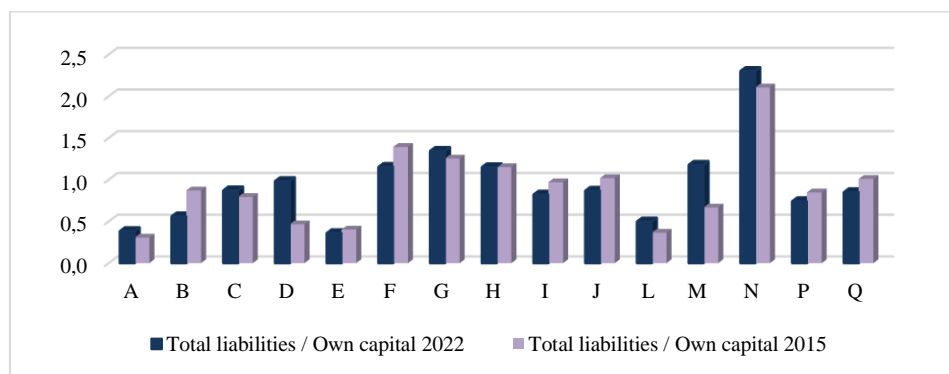
Source: own study based on GUS Report data.

<sup>13</sup> Data on industry, i.e. sections B+D+E, are given collectively without a split into individual industries, only with the separation of manufacturing, i.e. section C.

The level of credit and loan demand by sector can be illustrated by the debt-to-equity ratio. In Chart 7, the ratio is shown for each sector in 2015 and in 2022. It can be noted that the ratio of total liabilities to equity varies widely across industries. This is, of course, due to the different nature of the operation of these industries and the different needs for external financing. Some industries finance their operations mainly with own capital, borrowing less and reducing financing costs. In other sectors, on the other hand, a greater need to reach for external capital is noticeable, resulting, among other things, from high investment activity<sup>14</sup>.

Among the industries whose financing source structure is dominated by own capitals are: water supply, sewage and waste management (E); agriculture (A), and real estate activities (L). On the other hand, among the industries that make the most use of external capitals to finance their activities are: administrative services activities (N), as well as wholesale and retail trade (G), and construction (F). It's also worth noting that in the case of the electricity generation and supply (D) and professional, scientific and technical activities (M) industries, debt to equity increased significantly in 2022 relative to 2015. Over the analyzed period, changes in the other direction were made primarily in mining (B), which significantly reduced the share of external financing.

Chart 7. Debt to equity ratio, 2015 and 2022



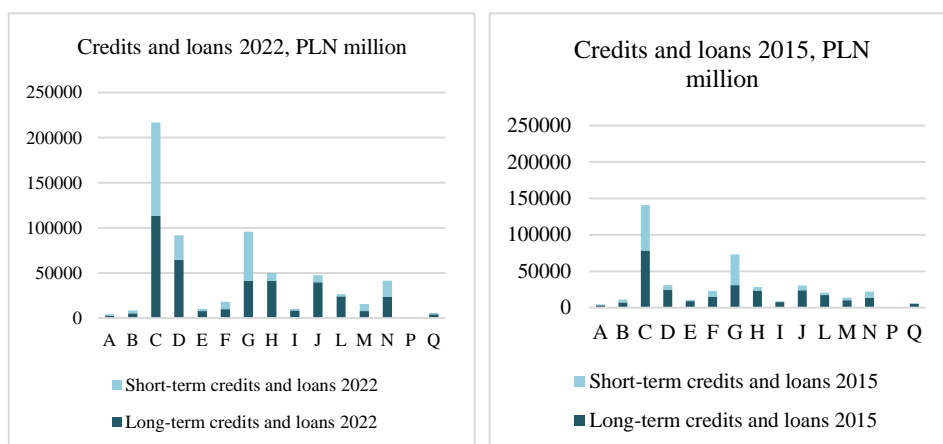
Source: Statistical Yearbook of the Republic of Poland, 2023<sup>15</sup>.

<sup>14</sup> The speed of asset turnover and the resulting capital structure, shaped by the specifics of the industry, also feature significantly.

<sup>15</sup> The data is for non-financial enterprises with 10 or more employees. The data does not include entities engaged in banking, brokerage, insurance, as well as investment and pension companies, national investment funds, universities, as well as independent public health care institutions, cultural institutions with legal personality and individual farms in agriculture, as well as trade unions, religious and political organizations.

Analyzing the interest of industries in credits and loans, it should be noted that the greatest use of this type of financing in 2022 was made by processing (at the same time an industry with a large share of the economy) (C), trade (G) and manufacturing and energy supply (D). For the last mentioned industry, a large increase in interest in credits and loans can be noted when comparing 2015 and 2022. A summary of long and short-term credits and loans granted to each industry is presented in Chart 8.

Chart 8. Credits and loans 2022 (left graphic), 2015. (right graphic), PLN million



Source: Statistical Yearbook of the Republic of Poland, 2023<sup>16</sup>.

Complementing the information gathered in Chart 7 (debt-to-equity ratio) is a comparison of industries by the ratio of credits and loans to own capital (Chart 9). The highest value in 2022 is recorded for the sector of administrative services activities (N), accommodation and food service activities (I), transportation and storage (H) and information and communication (J). In 2015, the configuration of industries in this aspect was different, with the highest ratio also observed for the

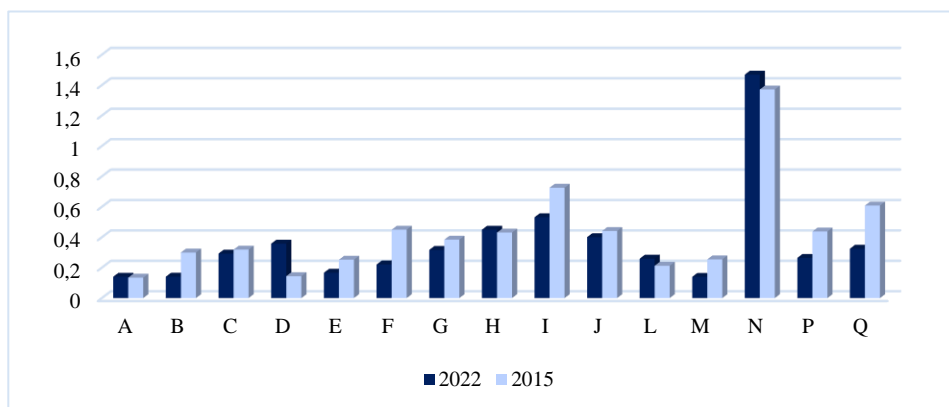
Data does not include these industries:

- O. public administration and defense; obligatory social security;
- R. cultural, entertainment and recreational activities,;
- S. other service activities;
- T. households employing workers; households producing goods and providing services for own use;
- U. extraterritorial organizations and groups.

<sup>16</sup> Ibid.

sectors of administrative services activities (N) and accommodation and food service activities (I), but followed by healthcare (Q) and construction (F).

Chart 9. Ratio of total credits and loans to own capital 2015 and 2022



Source: Statistical Yearbook of the Republic of Poland, 2023<sup>17</sup>.

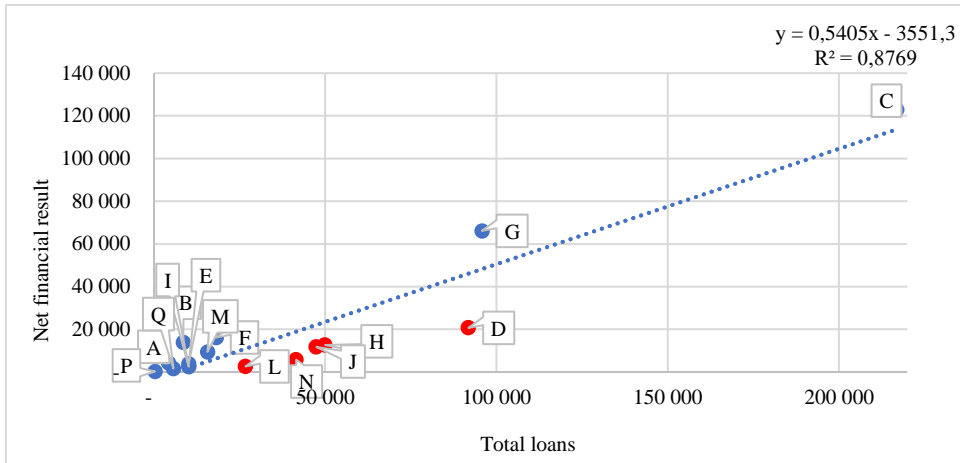
#### 4.4. Relationship between credit liabilities and financial results of sectors

For banks, it is important to know how each sector's credit taken out translates into both revenue and financial result. Chart 10 summarizes information on total credits (long and short-term) taken out by industries and their net financial result. It can be seen that an increase in the capital raised by industries from banks is correlated with an increase in their net financial result. An increase in loans by one zloty results in an increase in the profit of industries by PLN 0.5405. If the capital raised from banks is used by industries to increase their income, then those sections of the economy that make an efficient use of credit, i.e., generate higher profits from each zloty borrowed, may be better borrowers for banks. Therefore, it can be concluded that industries below the trend line in Chart 10, make a less efficient use of the capital obtained from banks, i.e., generate lower profits using the same funds. This may have a negative impact on their credit assessment by banks. This situation applies to the following industries: real estate services (L); administrative services activities (N); information and communication (J); transportation and storage (H); manufacturing and energy supply (D).

A similar relationship is shown in Chart 11, but with regard to revenue. The results for the various sections of the economy are similar, but in this view, the accommodation and food service industry (I) additionally turns out to be less efficient.

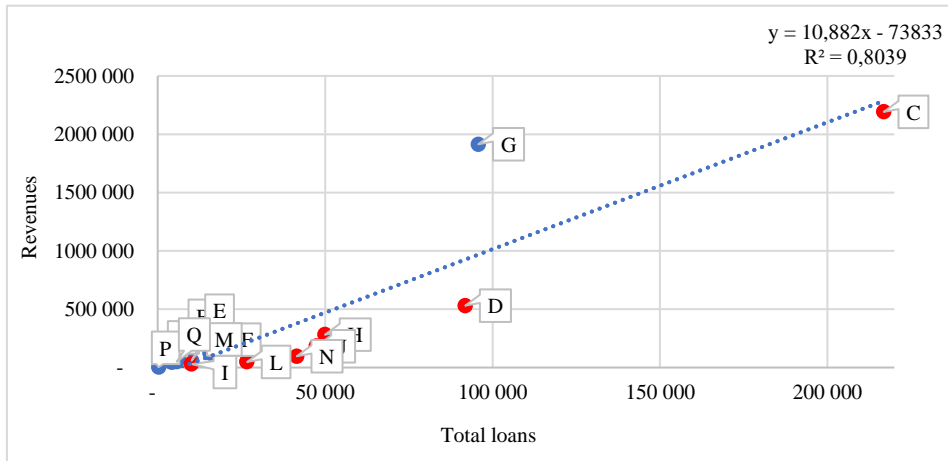
<sup>17</sup> Ibid.

Chart 10. Net financial result, credits in total, 2022



Source: Statistical Yearbook of the Republic of Poland, 2023<sup>18</sup>.

Chart 11. Revenues, credits in total, 2022



Source: Statistical Yearbook of the Republic of Poland, 2023<sup>19</sup>.

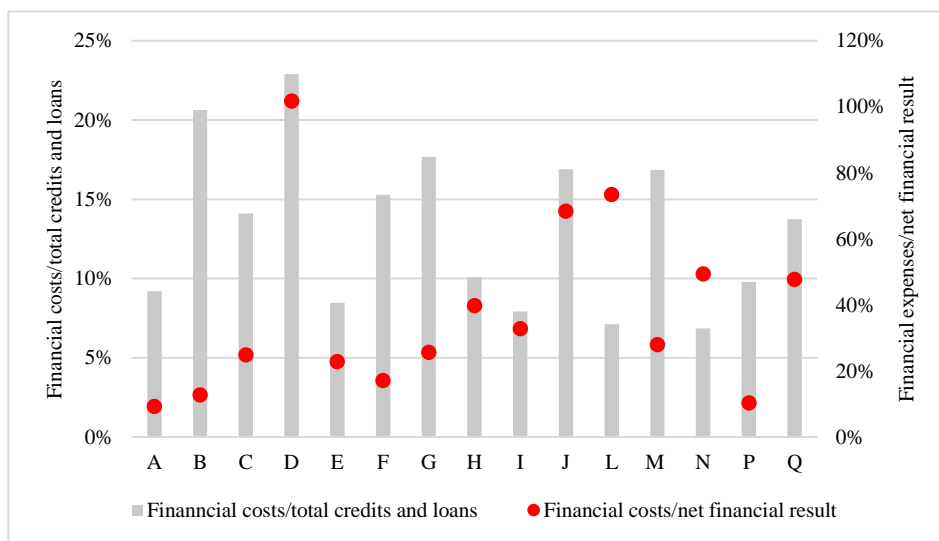
<sup>18</sup> The data is for non-financial enterprises with 10 or more employees. The data does not include entities engaged in banking, brokerage, insurance, as well as investment and pension companies, national investment funds, universities, as well as independent public health care institutions, cultural institutions with legal personality and individual farms in agriculture, as well as trade unions, religious and political organizations.

<sup>19</sup> Ibid.

It is important to compare financial costs to net income by industry (Chart 12 right axis). It can be noted that financial costs for some industries account for a much larger share of the net profit than for others. These industries are therefore relatively more burdened by a need to handle the debt incurred, and a smaller share of profit is left for other purposes. The worst relations are found for the manufacturing and energy supply (D), real estate services (L), information and communication (J), administrative services (N) and health care (Q) sections.

A comparison of financial costs with the value of loans and credits taken out by each industry also provides interesting information (Chart 12 left axis). For the manufacturing and energy supply (D), mining (B), trade (G), information and communication (J), professional, scientific and technical activities (M) or construction (F) sections, the share is noticeably higher than in other industries. This means that for the mentioned sections it is more expensive to take on debt. This may be related to the fact that banks rate these industries as riskier and compensate for the credit risk associated with providing financing to these sections of the economy by setting higher margins.

Chart 12. Ratio of financing costs to credits and loans by industry, 2022 (left axis)  
Ratio of financial expenses to net income by industry, 2022 (right axis)



Source: Statistical Yearbook of the Republic of Poland, 2023<sup>20</sup>.

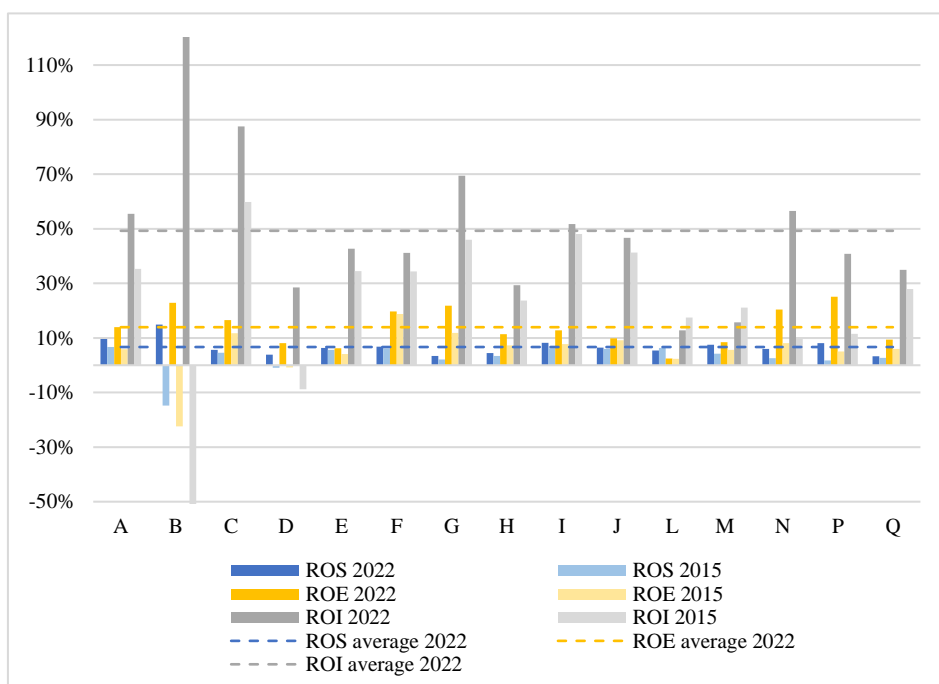
<sup>20</sup> Ibid.



#### 4.5. Profitability

An important element in the assessment of economic sectors is their profitability. Chart 13 shows the profitability results of the analyzed industries: ROS (net financial result/revenue), ROE (net financial result/own capital), ROI (net financial result/short-term investments)<sup>21</sup> for both 2022 and 2015. By comparing the profitability results in each of the analyzed areas (revenue, own capital, short-term investments) to the average (for 2022) in a given category for all industries, it is possible to identify those economic sectors that had below-average values in each of the three aforementioned categories (ROS, ROE, ROI). Such industries include: energy generation and supply (D), water supply, sewage and waste management (E), transportation and storage (H), information and communication (I), real estate services (L), and healthcare (Q).

Chart 13. Profitability ROS, ROE, ROI of specific industries, years 2015 and 2022



Source: Statistical Yearbook of the Republic of Poland, 2023<sup>22</sup>.

<sup>21</sup> Profitability ratios were counted with reference to the availability of published data.

<sup>22</sup> The data is for non-financial enterprises with 10 or more employees. The data does not include entities engaged in banking, brokerage, insurance, as well as investment and pension

In 2015, profitability (ROS, ROE, ROI) below the average for the analyzed sectors were in mining (B) and energy generation and supply (D).

Moreover, assessing the changes in each category of profitability (ROS, ROE, ROI) between the analyzed periods of 2022 and 2015, there was a noticeable improvement in the indicators of almost all sectors over time. However, the performance of two industries deteriorated: ROI for professional, scientific and technical activities (M), and ROI and ROS for real estate services (L).

Looking at the results in Chart 13, special attention is drawn to the mining sector (B), which, in terms of both revenue, own capital and short-term investments, was unprofitable in 2015, which may have had a major impact on its assessment by banks as a borrower.

#### **4.6. Liquidity**

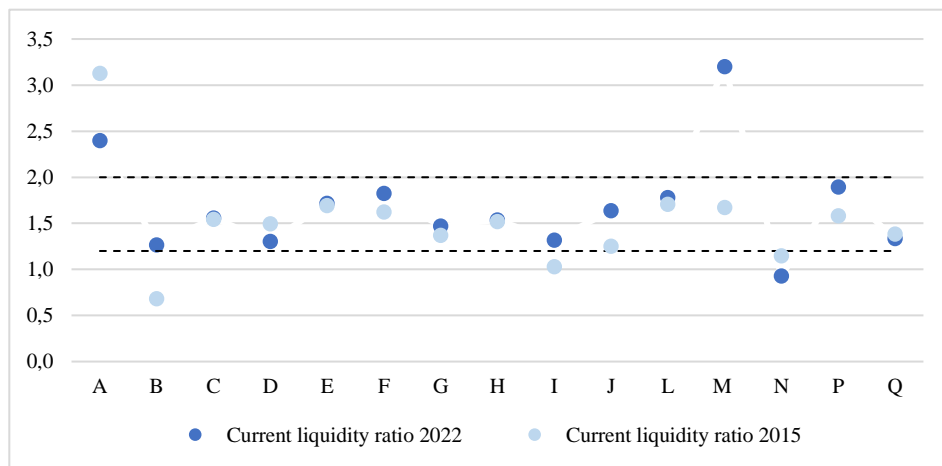
An aspect that undoubtedly needs attention to is the level of liquidity of industries, which is important for the ability to pay liabilities. The current liquidity ratio, expressed as the ratio of current assets to current liabilities, was adopted for the analysis. As Kuciński (2018) points out, there are no uniformly defined limits of the indicator in the literature, but it is assumed that its optimal value should be in the range of 1.2–2.0 or 1.5–2.0. This indicator, of course, can reach different values for individual industries, which is related to their specifics. However, taking a general interpretation of the indicator, its values below 1.0 may indicate difficulties in settling current liabilities and insufficient current assets. Excessively high values, above 3, may also indicate problems – with the turnover of assets or unused resources. Chart 14 shows that the lowest liquidity ratios are observed in administrative services (N), mining (B), energy generation and supply (D), accommodation and food service (I) and healthcare (Q). In contrast, increased liquidity ratios characterize agriculture (A) and professional, scientific and technical activities (M).

Changes in the liquidity index over time are also significant, indicating improving or deteriorating results. Negative changes over the analyzed period of 2015 and 2022 can be observed for manufacturing and energy supply (D), administrative services activities (N), health care (Q) (decrease) and professional, scientific and technical activities (M) (increase).

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companies, national investment funds, universities, as well as independent public health care institutions, cultural institutions with legal personality and individual farms in agriculture, as well as trade unions, religious and political organizations.

Chart 14. Current liquidity ratio, 2015 and 2022



Source: Statistical Yearbook of the Republic of Poland, 2023<sup>23</sup>.

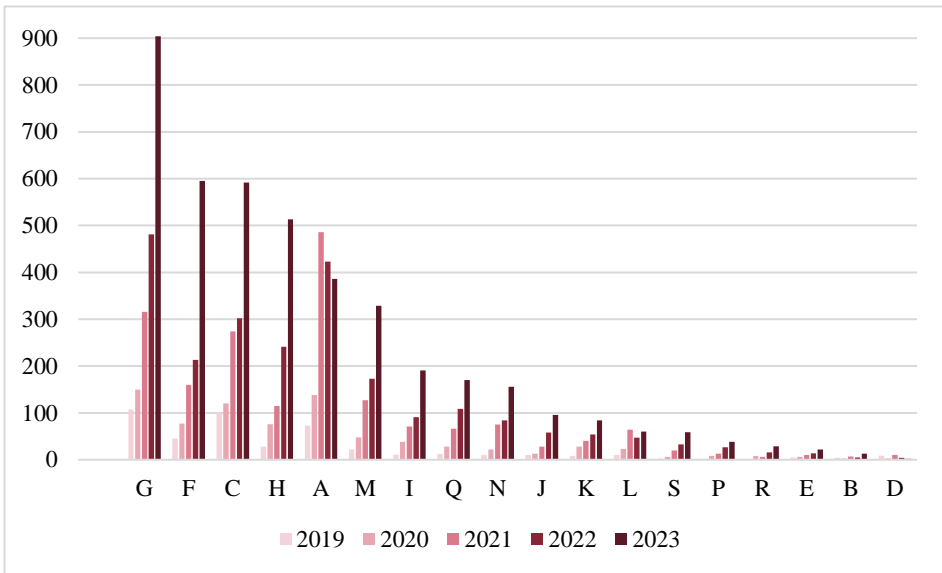
#### 4.7. Bankruptcies and reorganizations

The number of reorganization and bankruptcy proceedings involving companies operating in the area can demonstrate the increased level of risk in the industry. Charts 15 and 16 show the number of reorganization and bankruptcy proceedings of companies by industry in 2019–2023. It can be noted that in the area of reorganization there were significant increases in the opening of proceedings in the following years. In the analyzed period of 2019–2023, there were 462, 795, 1,888, 2,375, 4,239, accordingly. In the same period, the number of total bankruptcy proceedings was more stable and amounted to, accordingly: 582, 581, 410, 357, 406. On the other hand, it can be observed that in both categories – reorganization and bankruptcy, in almost all the analyzed years the top three sections of the economy with the highest number of open proceedings are: wholesale and retail trade (G), construction (F) and manufacturing (C). However, keeping in mind the sizes of these industries, it is difficult to conclude unequivocally that operating in these sections of the economy, and thus providing them with financing, involves a higher risk.

Moreover, it is worth mentioning that according to the NBP, the highest share of entities with high exposure to bankruptcy risk is among companies producing durable consumer goods and in the energy sector (NBP Report – NBP Quick Monitoring...).

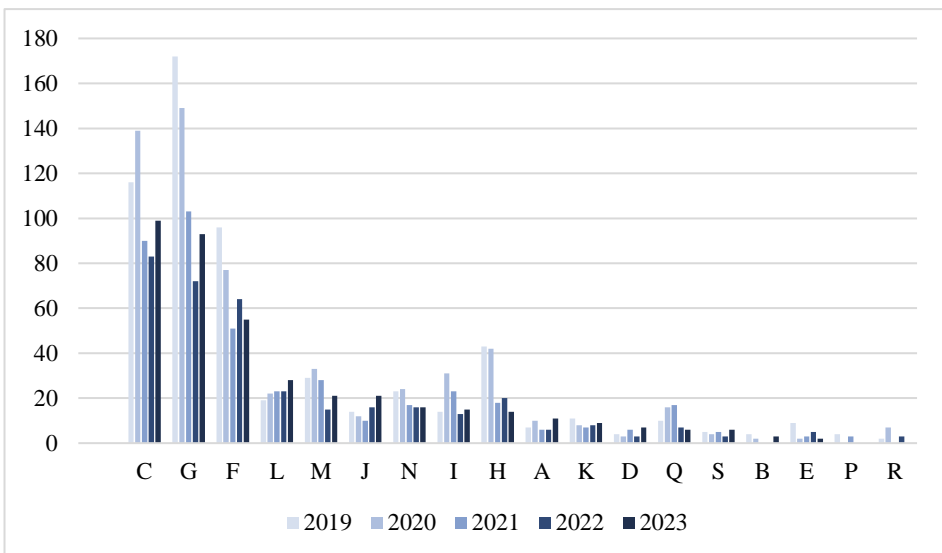
<sup>23</sup> Ibid.

Chart 15. Number of reorganization proceedings opened per year by industry, 2019–2023



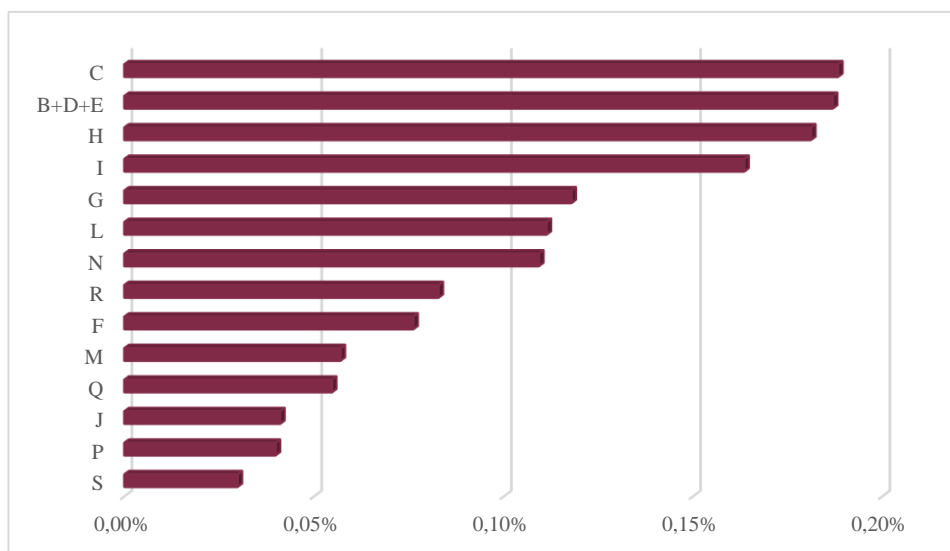
Source: own study based on COIG data for 2019–2023.

Chart 16. Number in bankruptcy proceedings opened in the year, by industry, 2019–2023



Source: own study based on COIG data for 2019–2023.

Chart 17. Share of reorganizations and bankruptcies opened in 2022 in the total number of companies in a given industry in the same year



Source: own study based on GUS Report data and COIG data for 2019–2023.

The characteristics of different sections of the economy should also be noted, e.g., the trade industry is noticeably more fragmented than the mining industry. Comparing the number of entities involved in bankruptcy and reorganization proceedings may therefore not fully show the level of risk associated with operating in a particular area. In addition to the sheer number of entities with difficulties in settling their liabilities, the size of their operations is also important, as is the relationship of entities subject to reorganization and bankruptcy proceedings to the total number of companies in a particular industry. This relationship for 2022 is illustrated in Chart 17. The least favorable industries in this comparison are:

- manufacturing (C);
- industry excluding manufacturing (B+D+E);
- transportation and warehouse management (H);
- accommodation and food service activities (I).

As Hybel and Strojny (2023) note, in 2016–2022, the difficulties in the trade industry were related to the problems of companies in enforcing timely payments, which received their receivables about two months late. As for the construction industry, on the other hand, the authors indicate that the problem of entities in this area is more complex, and point to the decline in investment in the private and public sectors, the increase in the prices of labor, construction materials, energy, as well as credit installments and leases to which high interest rates have contributed.

## 5. ANALYSIS OF THE RISK OF CREDIT DEFAULTS BY SPECIFIC SECTIONS OF PKD

The previous chapters presented a series of data and financial indicators of specific industries relevant to assessing the risk that arises for banks as a result of granting credits to companies in specific sections. This chapter summarizes the banks' own research of credit default risk based on the above-mentioned data. A comparison of the research results with data from the NBP reports on the share of loans of individual industries in phases 2 and 3 has also been carried out.

### 5.1. Self-study of the risk of credit defaults by specific sections of PKD

This part of the article presents an own study to determine the risk of credit defaults by specific sections of the economy. An assessment of the economic condition of each section of the economy was made. A multi-criteria analysis was carried out on variables affecting the ability of industries to settle their credit commitments. For this purpose, first a list of variables relevant to the performance of this analysis was extracted and it included:

- differences of empirical values from theoretical values determined from regressions between net income and total credits, for cross-sectional data of industries in 2022;
- differences of empirical values from theoretical values determined from regressions between revenue and total credits, for cross-sectional data of industries in 2022;
  - dynamics of revenues in the 2022/2015 period;
  - dynamics of net income in the 2022/2015 period;
  - share of reorganizations and bankruptcies in the industry<sup>24</sup> in 2022;
  - ROI i.e. net financial result/ short-term investments in 2022;
  - ROS i.e. net financial result/revenue in 2022;
  - ROE i.e. net financial result/own capital in 2022;
  - profitability ROS, ROE, ROI simultaneously differing from the industry average in 2022;
    - change in ROS, ROE, ROI – 2022/2015;
    - cost level ratio (costs/revenues) in 2022 and in 2015;
    - debt to equity ratio, i.e. total liabilities/own capital in 2022;
    - total loans/own capital in 2022;
    - ratio of financial expenses to credits and loans by industry in 2022;
    - ratio of financial expenses to net income by industry in 2022;
    - current liquidity ratio in 2022;
    - dynamics of the current financial liquidity ratio in the period 2022/2015.

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<sup>24</sup> The share of reorganizations and bankruptcies opened in 2022 in the total number of companies in a given industry in the same year.

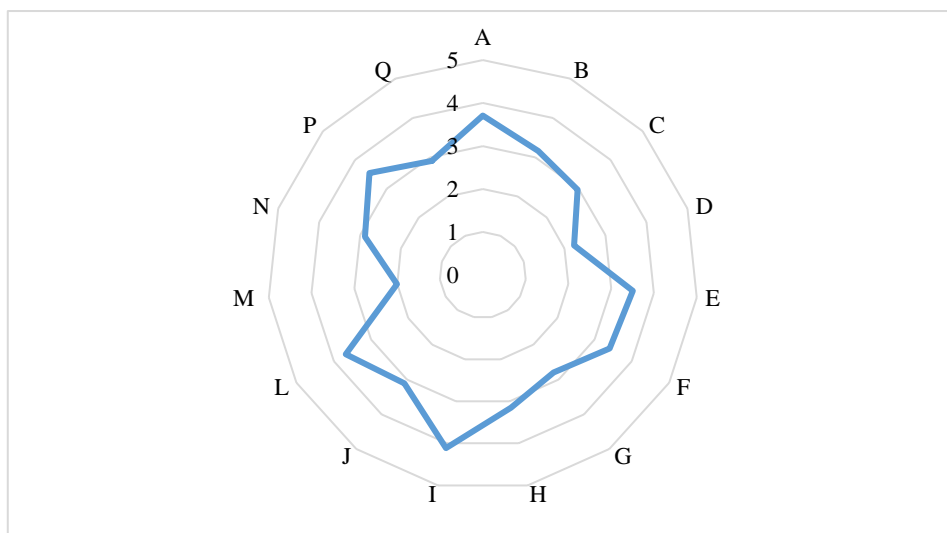
Among the above-mentioned variables, one can distinguish those that are stimulants affecting the ability of industries to regulate their liabilities (e.g., ROS), but there are also variables that are destimulants (e.g., debt-to-equity ratio).

Since the following section compares the self-analysis with the data of the NBP report (an increase in the share of loans in phases 2 and 3 means a deterioration in the ability of industries to regulate their liabilities), it was necessary to convert all variables into destimulants.

On this basis, six variables most correlated with the NBP participation data in phases 2 and 3 were selected<sup>25</sup>. Each variable was assigned the same weight. Further analysis included indicators such as:

- dynamics of net income in the period 2022/2015;
- dynamics of ROI i.e. net financial result/ short-term investments in the period 2022/2015;
- the ratio of the level of expenses (costs/revenues) in 2022;
- ratio of financial expenses to credits and loans by industry in 2022;
- ratio of financial expenses to net income by industry in 2022;
- current liquidity ratio in 2022.

Chart 18. Risk of industries



Source: own study.

Then, in order to bring the variables to comparability, normalization of variable values was applied. As Walesiak (2014) points out, such an effect is

<sup>25</sup> These were variables with a correlation coefficient > 0.22.

achieved by de-nominalizing the measurement results and standardizing their orders of magnitude. As already mentioned, the variables were transformed into destimulants. The study used one of the possible normalization methods which is the quotient transformation with the normalization base equal to the maximum. The final results of the multi-criteria analysis are shown in Chart 18. Increased values were identified with the situation causing potential increased problems with the repayment of credit commitments by the industry in question and increased risks for banks in connection with credit granting. Therefore, the sections with the highest scores represent the highest risk for banks providing financing.

Considering the variables analyzed, the accommodation and food services (I), agriculture (A) and real estate services (L) industries were singled out as potentially riskier.

The self-analysis presented in the article provides some analogy to the assessment of creditworthiness based on a group of financial indicators used by commercial banks in the process of granting credit to businesses. Its advantage is a synthetic approach covering various aspects of the functioning of a section of the economy from among a wide spectrum of variables. A certain limitation when it comes to making conclusions on the basis of such an analysis is the comparison of industries with different business characteristics using the same indicators.

## **5.2. Comparison of NBP data on credit repayment by industry with the results of the analysis presented in the article**

In the following part of the study, a comparison of the analysis results presented in the article with the NBP data on credit repayment by industry, relating to the share of credit in phases 2 and 3 in banks' credit portfolios, was carried out. The comparison was carried out for 15 industries for which data was available to conduct the study<sup>26</sup>.

In order to compare the results obtained with the NBP data, an analysis of the distributions of values for each industry relative to its median was carried out. Separately, the median was counted for three data series: those presenting the share of credits in phase 2, in phase 3 and those resulting from the self-analysis. Chart 19 shows the industries, for each of the three above-mentioned data series, with their position relative to the median.

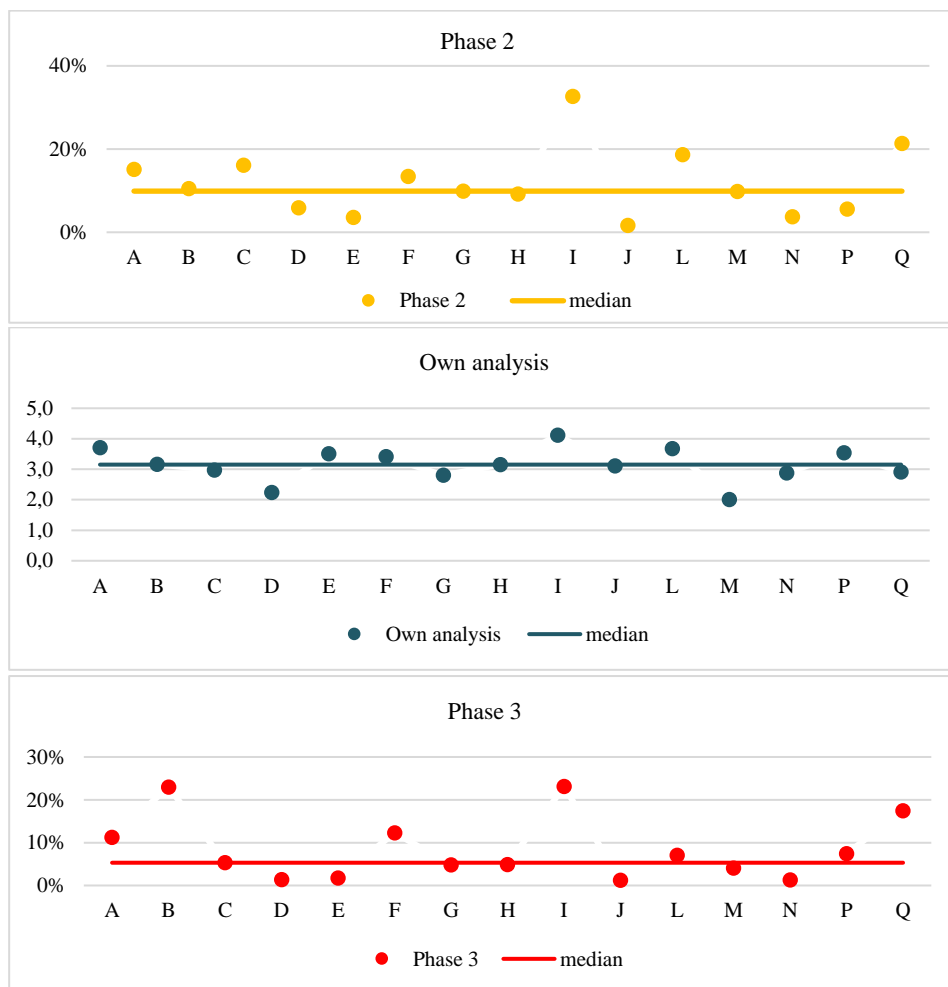
Chart 19 below is a table summarizing instances in which an industry, based on both the self-analysis presented in the article and the NBP data on the share of loans in phase 2 and phase 3 (separately for each phase), is above or below the median.

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<sup>26</sup> Industries presented in Chart 19.



Chart 19. Analysis of the distributions of values (phase 2, own analysis, phase 3) for specific industries relative to their median



	< Median										Median	> Median								
Phase 2	-	D	E	-	H	J	M	N	P	-	G	A	B	C	-	F	I	L	-	Q
Own analysis	C	D	-	G	-	J	M	N	-	Q	H	A	B	-	E	F	I	L	P	-
Phase 3	-	D	E	G	H	J	M	N	-	-	C	A	B	-	-	F	I	L	P	Q

Source: own calculations and NBP data: NBP Financial System Stability Reports for June 2023.

Table 2. Differentiation of sections of the economy due to banks' credit risk

Own analysis																	
Period	A	B	C	D	E	F	G	H	I	J	L	M	N	P	Q	R	S
2022	3,710	3,159	2,966	2,234	3,506	3,407	2,798	3,152	4,112	3,107	3,677	2,008	2,881	3,542	2,905	b.d.	b.d.
Phase 2 (NBP)																	
Period	A	B	C	D	E	F	G	H	I	J	L	M	N	P	Q	R	S
12-2019	15,8%	1,7%	9,6%	11,1%	12,6%	9,6%	9,9%	8,9%	12,4%	3,1%	7,0%	3,5%	5,4%	8,4%	17,2%	3,3%	13,2%
12-2020	16,5%	13,0%	11,1%	17,9%	6,8%	14,6%	11,5%	13,7%	37,1%	3,2%	19,2%	5,6%	16,0%	8,9%	19,4%	33,7%	25,3%
12-2021	13,8%	16,2%	9,3%	12,3%	4,7%	16,9%	10,0%	10,1%	44,5%	2,1%	22,0%	4,2%	4,0%	10,3%	13,8%	39,3%	25,8%
12-2022	15,2%	10,5%	16,1%	5,9%	3,6%	13,4%	9,9%	9,2%	32,7%	1,7%	18,7%	9,8%	3,8%	5,6%	21,4%	32,9%	13,7%
average	15,3%	10,3%	11,5%	11,8%	6,9%	13,6%	10,3%	10,5%	31,7%	2,5%	16,7%	5,8%	7,3%	8,3%	18,0%	27,3%	19,5%
Phase 3 (NBP)																	
Period	A	B	C	D	E	F	G	H	I	J	L	M	N	P	Q	R	S
12-2019	11,9%	22,1%	7,4%	8,2%	2,7%	17,1%	7,3%	4,4%	18,4%	3,1%	6,9%	4,6%	4,1%	8,5%	7,3%	9,5%	18,2%
12-2020	12,8%	18,9%	8,7%	4,2%	2,6%	14,8%	8,2%	4,8%	23,4%	3,2%	7,8%	4,4%	5,1%	9,1%	8,9%	7,5%	17,7%
12-2021	10,3%	30,4%	6,6%	1,2%	1,6%	13,7%	5,7%	5,4%	24,5%	1,4%	7,6%	3,2%	3,2%	6,6%	8,6%	6,0%	15,3%
12-2022	11,2%	23,0%	5,3%	1,4%	1,7%	12,3%	4,8%	4,9%	23,1%	1,2%	7,1%	4,1%	1,3%	7,4%	17,5%	5,7%	33,3%
average	11,6%	23,6%	7,0%	3,8%	2,2%	14,5%	6,5%	4,9%	22,4%	2,2%	7,3%	4,1%	3,4%	7,9%	10,6%	7,2%	21,1%

Source: own calculations and NBP data: NBP Financial System Stability Reports for June 2021, June 2022, June 2023.

In terms of the comparison of self-analysis with the share of credits in phase 3, for 11 sections the results were similar (i.e., the same industry was above or below the median). As for the comparison of self-analysis with the share of credit in phase 2, the results are similar – for 9 sections, the results converged (i.e., the same industry was above or below the median). The correlation coefficient of the results of self-analysis with the share of loans in phase 2 was 0.45, and with the share of loans in phase 3 was 0.46.

Therefore, it can be concluded that the above-mentioned variables relevant to assessing the risk incurred by banks in lending to particular industries reflect this risk well when comparing the results obtained with data published by the NBP on the shares of credits in banks' portfolios in phase 2 and phase 3.

As a result, a noticeably different financial situation of the various sectors was identified. The analysis carried out allows to conclude that different sections of the economy are characterized for banks by different risks associated with providing financing to these industries.

More detailed information in terms of comparing the self-analysis carried out with the share of loans in phase 2 and phase 3 according to the NBP data is provided in Table 2.

### 5.3. Conclusions

The NBP data shows that the largest share of worst-quality, i.e., phase 3 loans in loans for each PKD section was recorded at the end of 2022 in other service activities (S). However, the financial information on this industry necessary for the survey was not available, so it was not included in this article. The section includes: activities of membership organizations; repair and maintenance of computers and personal and household goods, as well as other individual service activities such as hairdressing and other beauty treatments; physical improvement service activities or other service activities not elsewhere classified, among others. The section therefore includes mostly small entities, which affects its large fragmentation. This industry may represent a large group of borrowers less resistant to financial difficulties.

Accommodation and food service (I), mining (B) and healthcare (Q) followed with the largest share of phase 3 loans.

On the other hand, the largest number of credits in phase 2 in 2022, according to the NBP, was recorded in culture, recreation and entertainment (R)<sup>27</sup>. Financial data was not available for this section either, making it impossible to conduct a study including this industry.

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<sup>27</sup> Financial data on this industry, as well as the section of other service activities (S), was not available, so the analysis in this article does not include it.

The next worst results in terms of the share of credits in phase 2 were recorded for accommodation and food service (I), health care (Q) and real estate services (L).

The results of the analysis presented in the article also confirm that the accommodation and food service (I) and real estate services (L) industries, among others, are associated for banks with an increased risk of their financing.

In this regard, it is worth noting the specificity of the mining industry, which as recently as 2015 had the lowest profitability<sup>28</sup> (ROS, ROE, ROI) compared to other industries, but its performance in 2022 significantly improved, due to a sudden and very large increase in the price of coal. The section's recent major financial problems may affect the results taking into account the share of phase 3 loans at banks. On the other hand, accommodation and food service (I) – an industry with one of the highest shares of phase 3 loans is susceptible to seasonality, so this section may be more sensitive to temporary and cyclical financial difficulties that translate into problems with credit repayment. In the analysis conducted in the article, this section was not explicitly identified as highly risky for banks. Such a state of affairs may be related to the fact that the survey used data on non-financial enterprises with 10 or more employees. Therefore, the group of the smallest entities in this sector, which may have the weakest resilience to the financial difficulties that occur and increase the credit risk of banks, was not included.

It is noticeable that there are some differences in the assessment of banks' credit risk in connection with the financing of specific sections of the economy between the results of the own analysis and the NBP data based on information obtained from banks. The reason for this is primarily a different methodology, which in the case of the own analysis is based on the use of publicly available aggregated data on the financial situation of individual sections of the economy, while in the case of the data presented by the NBP, it is a direct result of the accounting and credit portfolio management policies applied at individual banks. In addition, it should be kept in mind that data on the share of credits of individual industries in phase 2, and especially in phase 3, does not take into account credits that are written off or sold by banks.

It should be stated that many factors can affect the overall situation of individual industries, and a number of variables can inform their ability to generate risk for banks. Changes in the economic environment over time are also important. Credits are granted for up to a dozen years or more. During such a period, the situation of the industry can change dramatically and present a completely different level of risk for banks. Therefore, it seems important for banks to pay attention to the widest possible range of factors that can affect the situation of individual industries and their ability to repay credits. This is because the above translates into the quality of banks' credit portfolios.

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<sup>28</sup> The industry's recent major financial problems were caused, among other things, by continued low coal prices.

## SUMMARY

The article pointed out that individual industries differ significantly in size, the number of entities they bring together, profitability, propensity to invest, liability structure and financing needs of banks. Significantly, based on an analysis of the share of loans from each section of the PKD in phases 2 and 3 in relation to banks' total credit portfolios, individual industries also differ in this regard, which was also confirmed by the article's own analysis. The above confirms the hypothesis that industries are significantly different in terms of credit risk from the perspective of the banks providing them with financing.

The highest credit risk for banks as expressed by the percentage of loans in phase 2 and phase 3 is recorded for the accommodation and food service (I), healthcare (Q) and real estate services (L) and mining (B) industries, among others.

It should be noted that the quality of loan portfolios is influenced by more factors than just the industry a bank finances. However, the results presented in the article indicate that individual industries generate varying levels of credit risk for banks, expressed through the level of non-performing credits (and those showing symptoms of possible repayment difficulties) in the entire credit portfolio.

In this regard, it is worth noting the role that banks play in the economy. They provide capital to all players in the economy, influencing the development of investment and consumption in the economy. Therefore, the task of banks is to finance both the most profitable industries and the less efficient ones. At the same time, it is important that this efficiency of individual industries can change over time.

It is also significant that banks must act in accordance with applicable laws and internal procedures and apply, example.g., certain restrictions on granting credits taking into account concentration limits, which also apply, among other things, to the financed sectors. As the KNF indicates in the guidelines of Recommendation C on concentration risk management<sup>29</sup>, banks should set levels of limits reducing concentration risk, including taking into account, among other things, industry indicators.

Keeping the above in mind, it seems that by increasing or decreasing the value and number of credits granted to specific industries, banks can influence the level of credit risk and this can be one of their tools for managing the quality of credit portfolios.

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<sup>29</sup> KNF Recommendation C on concentration risk management, May 2016.

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## BRANŻA KREDYTOBIORCY A RYZYKO KREDYTOWE DLA BANKÓW

**Cel artykułu.** Podmioty gospodarcze w różnych branżach prowadzą odmienną działalność. Poszczególne sektory cechują się więc m.in. różną rentownością, zapotrzebowaniem na finansowanie obce, a w konsekwencji zróżnicowanym poziomem ryzyka braku spłaty zobowiązań kredytowych

wobec banków. Kredytobiorcy z określonych branż mogą być z perspektywy interesów banków lepszymi bądź gorszymi klientami i przyczyniać się do wzmocnienia lub osłabienia jakości ich portfeli kredytowych. Celem artykułu jest porównanie sekcji gospodarki pod względem ryzyka kredytowego towarzyszącego bankom udzielającym im kredytów. Przeprowadzona analiza posłuży zweryfikowaniu hipotezy, że branże są istotnie zróżnicowane pod względem ryzyka kredytowego banków związanego z udzielanymi kredytami.

**Metoda badawcza.** Artykuł uzupełnia literaturę o przekrojową analizę sektorów gospodarki i zawiera ocenę zróżnicowania poszczególnych z nich ze względu na ich kondycję ekonomiczną i związane z tym potencjalne ryzyko banków udzielających danym branżom kredytów. Przedstawiony został w nim przegląd literatury obejmujący zagadnienie porównania ryzyka działania różnych branż oraz zaprezentowana została klasyfikacja sekcji gospodarki według Polskiej Klasyfikacji Działalności (PKD). Ponadto przedstawione zostały dane Narodowego Banku Polskiego NBP o spłacalności kredytów w poszczególnych branżach, a także zaprezentowana została charakterystyka poszczególnych sekcji gospodarki. Przedstawione zostały rozmiary działania poszczególnych branż z uwzględnieniem wielkości ich przychodów oraz liczby przedsiębiorstw, a także skala inwestycji oraz zapotrzebowania na kredyty i pożyczki w poszczególnych sekcjach gospodarki. Badaniu poddane zostały również: wskaźnik poziomu kosztów, wskaźnik zadłużenia kapitału własnego, udział kredytów i pożyczek poszczególnych sekcji w relacji do kapitału własnego. Scharakteryzowane zostały także zależności pomiędzy: zadłużeniem a wynikami finansowymi sektorów, kosztami finansowymi i kredytami oraz kosztami finansowymi i wynikami finansowymi netto branż. Zbadano również rentowność i płynność sekcji gospodarki. Przeanalizowano też dane dotyczące otwieranych postępowań upadłościowych oraz restrukturyzacyjnych w podziale na poszczególne sekcje gospodarki. Przedstawione zostały założenia oraz wyniki analizy ryzyka braku spłaty zobowiązań kredytowych według poszczególnych sekcji gospodarki. Ponadto omówione zostały wyniki analizy przeprowadzonej w artykule oraz porównane z danymi NBP o udziale kredytów w fazach 2 oraz 3 w poszczególnych branżach.

**Wyniki badań.** W artykule wskazane zostało, że poszczególne branże różnią się pomiędzy sobą istotnie rozmiarami, liczbą podmiotów, które skupiają, rentownością, skłonnością do inwestowania, strukturą pasywów i potrzebami w zakresie finansowania udzielanego przez banki. Co istotne, na podstawie analizy udziału kredytów z poszczególnych sekcji PKD w fazach 2 oraz 3 w relacji do portfeli kredytowych ogółem banków, poszczególne branże różnią się także w tym zakresie, co potwierdziła również dokonana w artykule analiza własna. Powyższe potwierdza hipotezę, że branże są istotnie zróżnicowane pod względem ryzyka kredytowego z perspektywy banków udzielających im finansowania.

**Słowa kluczowe:** ryzyko kredytowe, sektor gospodarki, kredyty bankowe, jakość kredytów, jakość portfela kredytowego banków.

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## THE SCOPE AND DIRECTION OF CHANGES IN THE REVENUES OF LOCAL GOVERNMENT UNITS IN POLAND IN THE NEW ACT OF OCTOBER 1, 2024

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### THE SCOPE AND DIRECTION OF CHANGES IN THE REVENUES OF LOCAL GOVERNMENT UNITS IN POLAND IN THE NEW ACT OF OCTOBER 1, 2024

#### ABSTRACT

**The purpose of the article.** The purpose of the study is to present the basic assumptions adopted in the new law on the revenues of local government units and changes in the financial situation of different types of local government units in Poland.

**Methodology.** The article is of an overview and organizational nature, and the adopted legislation, the draft law with introductory documents and the opinions of local government organizations have been used to achieve the intended purpose.

**Results of the research.** The adoption of a new law on local government revenues is aimed at reforming the financial system to restore stability and transparency. It is also a response to the changing socio-economic and political situation. Under the law, all local government units, but not all equally, will receive increased funding streams for public functions, mainly based on their own revenues. The level of local government revenue has been freed from central government decisions on fiscal policy. The need to support local governments in the area of development and ecology has been recognized by defining development and ecology needs and granting them an appropriate financial component. A complete novelty is the separation of a city with county rights from the local government structure. Some of the solutions introduced deserve recognition. It should not be forgotten, however, that there are also those that will need to be adapted. These include the "determinants" adopted for the various algorithms used to determine the expenditure needs of each LGU. Only practice will show whether they have been correctly estimated and take

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into account the right variables. Building a stable system of financing for local government units will require both the government and local government sides to work together in many ways, with mutual understanding and partnership.

**Keywords:** local government revenue law, financial system reform, stability of local government financial system.

**JEL Class:** H76, H79, K49, M39.

## INTRODUCTION

At the beginning of October 2024, the Sejm adopted a new law on revenues of local government units (Act 2024). The aim of the new regulations is to increase the financial stability of individual types of local self-government units (LGU). Until now, local government finances in Poland were regulated by the Act on Income of November 13, 2003 (Act 2003). More than twenty years have passed since its enactment. During this time, the socio-economic and legal environment have undergone multidirectional changes. Local authorities have had to cope with new opportunities arising from Poland's accession to the structures of the European Union, the financial crises at the turn of the first two decades of the 21st century, the health and economic crises following the Covid-19 pandemic, the effects of increased migration caused by the outbreak of war in Ukraine, or the energy and climate crises and the effects of the 'Polish Deal' program. All these events have left their mark on local government finances. It is therefore not surprising that, for years, the academic and local government communities have repeatedly appealed to government authorities to change the way in which the tasks imposed on the sector are financed (Święcicka, 2024).

The purpose of the paper is to present the basic assumptions adopted in the new law on revenues of local government units and changes in the financial situation of particular types of local government units in Poland.

The article has an illustrative and organizational character, and the adopted legal act, the draft act with its introductory documents and opinions of self-government organizations have been used to achieve the intended purpose.

### 1. THE REASONS FOR THE AMENDMENT OF THE PROVISIONS OF THE LOCAL GOVERNMENT FINANCE ACT 2003

Until October 1, 2024, the system of financing local government units in Poland was regulated by the Act of November 13, 2003 on income (repealed) (Act 2003). It defined the sources of income of the units, the principles of determining and collecting the own income of these units, the principles of determining the general subsidy and payments to the local government units, the principles and procedure

of transferring a part of the general subsidy, the principles and procedure of determining the amount of a part of the general subsidy, shares in the income tax revenues of natural persons and payments to new local government units, the principles of determining and transferring subsidies to local government units. Together with the Public Finance Act and the Tax Acts, it determines the principles of managing the financial resources of the local government sub-sector.

Throughout its implementation, the 2003 Law was widely criticized. The limitation of financial independence was pointed out; it abandoned objective principles in the design of subsidies to local self-government units, linking the amount of the education subsidy to the revenues of the state budget in favor of its determination by the Minister of Finance, and then it was the Minister of Education who, using an algorithm, distributed the funds to different types of local self-government units (Surówka, 2014: 2). There has been criticism of the way in which the shares of local governments in income taxes are calculated, especially in the case of a personal income tax. The rules laid down in the law in this way made Polish local government dependent on the economic situation.

The explanatory memorandum to the government's draft law on local government income of July 15, 2024 shows that the aim of the new law is to stabilize the system of local government finances and adapt it to the dynamically changing socio-economic and legal environment (Explanatory Memorandum, 2024: 1). The author declares that the reform will lead to a qualitative change in the income structure of local government budgets. In 2025, the income of local governments is expected to increase by PLN 24.8 billion compared to the current system, and the income of each type of local government will increase by between 4 and 12%. The proposed solution follows the changes to the tax system implemented in 2019–2022, which had a significant impact on the level of local government incomes. The greatest loss of tax revenue is due to the exemption of persons under 26 from income tax, the change in the tax scale from 18% to 17% and then to 12%, and the increase in the tax-free amount to PLN 30,000 and the tax threshold to PLN 120,000.

While the government introduced the above changes to the tax system, it did not provide local governments with adequate systemic compensation for the shortfall, leading to an imbalance in the ratio of current revenues to current expenditures. This imbalance was particularly evident in 2022, when the highest levels of inflation in Poland were recorded. The audit reports of the Supreme Audit Office (SAO) show that during this period more than half of the local self-government units were unable to meet their statutory obligations from their own revenues. This was a violation of the requirement to provide self-governments with adequate funding for their tasks, which derives directly from article 167(1) and (4) of the Constitution of the Republic of Poland (Constitution, 1997).

In the opinion of the Supreme Audit Office, local governments – in the absence of a decision to reduce the scope of tasks performed – should receive financial compensation, established by the system, in an amount corresponding to the real losses. All the more so as these actions were not a consequence of the economic collapse, but only of the legislator's decision in the scope in question (SAO, 2023: 10). In 2023, the government attempted to make up the shortfall, but these were temporary measures. As a result, local governments received funding from the Ministry of Finance ranging from one-fifth to more than eight times the amount of attrition, demonstrating the formation of local government finances in violation of article 9(1)–(2) and (4) of the European Charter of Local Self-Government (ECSL) (ECSL, 9–1994). The abovementioned irregularity revealed a significant dysfunction of the national legislation in this respect, with particular reference to article 50(2) of the Public Finance Act, the provisions of which refer to draft laws and legal acts whose financial effect may be an increase in expenditure or a decrease in income of the units of the public finance sector in relation to the amounts resulting from the binding provisions and the indication of the sources of their financing (Act 2009).

In addition, the weak financial situation and the impossibility in many cases of drawing up budgets in accordance with the expenditure principle set out in article 242 of the Public Finance Act led to the decision to relax this principle and to allow, initially for 2022 and ultimately until 2025, the drawing up of the budget using free funds within the meaning of article 217(2)(6) of that Act, i.e., as a surplus of cash on the current account of the budget of the local government unit resulting from the settlement of securities issued, loans and borrowings from previous years. The above relaxation was made on the basis of the First Amendment to the Local Government Revenues Act, 2021 (Act 2021) and the second in 2022 (Act 2022). This means that the current deficit of a given year will have to be covered in the next financial year over the coming years. For this reason, a temporary change in the approach to the rule was introduced – from a one-year rule to a medium-term rule (Council of Ministers, 2024: 7).

The reduction in PIT revenues and the lack of operating surpluses made local governments completely dependent on additional grants and subsidies paid during the budget year starting in 2020. Ad hoc support instruments were applied to local governments to ensure that they maintain their financial liquidity. However, in many cases they were granted on the basis of subjective criteria, so that the ad hoc nature did not guarantee the restoration of financial stability in the future. In the opinion of the Supreme Audit Office, such a practice carries a high risk of centralization of public authority, depriving local governments of their subjectivity, as well as of informal influence of the central government on local authorities and a risk of corrupt activities (SAO, 2023: 15).

It was necessary and desirable to build a new system of financing local self-government units guaranteeing financial independence and stabilization of incomes of TSUs.

The main objectives of the proposed changes were (Explanatory Memorandum, 2024: 1–2):

1) strengthening and stabilizing the finances of territorial self-government units by increasing their own revenues, primarily tax revenues, on which the ability to perform tasks and develop self-government depends. Transfers from the state budget in the form of subsidies should be of a complementary nature and not of a dominant character as in recent years;

2) to base the financial supply of territorial self-government units on the revenues from the local base of personal income tax and corporate income tax, which will lead to the stabilization of the revenues of territorial self-government units from these shares and will largely exempt them from the effects of changes in the tax system;

3) objective and algorithmic calculation of funds for each TSU. The aim is to restore the transparency and adequacy of the self-government revenue system in the distribution of funds on the basis of objective parameters;

4) ensuring better allocation of public funds. The system of revenues of territorial self-government units adopted in the Law takes into account, among other things, the specifics of certain categories of territorial self-government units, covering not only the issue of income disparities, but also – neglected in the current system – the issue of expenditure needs of certain units resulting from the tasks performed;

5) making the system more flexible and limiting the excessive flow of funds between the state budget and local governments. The previous solution forced the rich self-governments to make obligatory payments to the state budget, the so-called "Janosikowe", while at the same time they were beneficiaries of funds from the state budget;

6) increasing the influence of the Party of Self-Government on the distribution of funds to territorial self-government units.

The aim of the adopted amendments is to restore transparency to the local government income system and ensure that it is apolitical. The income of local communities is to be based on objective parameters, measurable through statistical data (Prime Minister's Office, 2024).

## **2. SCOPE OF CHANGES ADOPTED IN THE LOCAL GOVERNMENT REVENUE ACT OF OCTOBER 1, 2024**

The Act on the income of local government units (new Act) (Act 2024), adopted by the Sejm on October 1, 2024, was created from scratch, i.e., it is not another

amendment. In the adopted Act, the sources of own income remain unchanged and include three main groups: own income, general subsidies and targeted subsidies from the state budget.

A novelty in the Act is the creation of a new type of local government unit – cities with poviats rights (CPR), and the allocation of own revenues to them in the same way as to municipalities and poviats. From a financial point of view, this is a welcome development. Until now, these units have been financed by the municipal and district parts. The separation will allow for a more precise definition:

- the expenditure specifics of cities with poviats rights, on which the compensatory needs of local governments depend, as CPRs have a different structure of net current expenditure than municipalities and poviats;
- development needs of particular categories of local governments, including CPRs.

The provisions of the Act on the Income of Local Self-Governments from October 1, 2024 set out new rules for local governments' share of income from personal income tax (PIT) and corporate income tax (CIT). The way in which revenue from these taxes is calculated will change. It will now be an amount corresponding to the percentage of income of taxpayers of a given tax resident in the territory of a given unit. Previously, local government income from participation in PIT and CIT was calculated on the basis of the tax due. The basis for calculating the new amount of tax revenue will be the income of taxpayers in the most recent year for which data on such revenue is available, i.e., the year preceding the financial year by two years. At the same time, the income of PIT and CIT taxpayers will be valorized to the conditions of the financial year. The income of PIT taxpayers will be revalued on the basis of the index of the dynamics of average remuneration and the dynamics of employment. However, in the case of the income of CIT taxpayers, valorization will be based on the dynamics of changes in nominal GDP, taking into account both economic growth and inflation. The indicators adopted are objective, widely known and officially projected for budgetary purposes (Explanatory Memorandum, 2024: 12).

The change in the percentage share of PIT and CIT for each type of TSU in the 2003 and 2024 Local Government Income Act is shown in Table 1.

The separation of cities with poviats rights as a separate category of territorial self-government units resulted in the granting of a separate PIT and CIT rate, different from that of gminas and poviats. Such a solution should be assessed positively, as the wealth comparison will be carried out only within the framework of cities with poviats rights, and thanks to this, a part of the cities that were considered relatively rich in the previous system (of 2003) will become beneficiaries of compensatory amounts. There will also be positive changes in the determination of development needs (Explanatory Memorandum, 2024: 10).

Table 1. Local government shares of PIT and CIT according to the 2003 Act on Local Government Income and the 2024 Act on Local Government Income

Unit self-government Local authority	Act of November 13, 2003		Act of October 1, 2024	
	<i>Participation in PIT</i>	<i>Participation in CIT</i>	<i>Participation in PIT</i>	<i>Participation in CIT</i>
Commune	39,34%	6,71%	7%	1,6%
City with district rights	N/A	N/A	8,6%	2,2%
District	10,25%	1,40%	2,0%	1,7%
Voivodeship	1,60%	14,75%	0,35%	2,3%

Source: own compilation based on the Act of November 13, 2003; Act of October 1, 2024.

Another change is the extension of the existing catalogue of incomes to include PIT collected in the form of a lump sum on registered incomes, responding to long-standing demands from local government officials. It has been proposed that the flat-rate income should amount to 14% of the flat-rate revenue. The same percentage is made up – in relation to income – of income from the tax scale or flat tax on non-agricultural business activity. Broadening the tax base to include a lump sum of registered income will neutralize the negative effects resulting from taxpayers changing their form of taxation and switching to a lump sum (Explanatory Memorandum, 2024: 9).

The advantage of the adopted solutions is that the revenues of self-governments will not be affected by changes in the tax system introduced by the government (e.g., deductions from income, introduced tax reliefs and exemptions or increases in the tax-free amount). The proposed amounts of PIT and CIT shares will increase the revenue of territorial self-government units from the discussed sources. This will increase the motivation of self-government authorities to support economic development by attracting investors, supporting new jobs or streamlining administrative procedures for serving entrepreneurs and citizens.

Chapter 4 of the Act is devoted to the principles of determining the financial needs of local government units and their financing. New categories appear in this chapter, i.e., the financial needs of local government units, the individual wealth index of the local government unit, the converted population of the local government unit, the Index of Expenditure Needs (IEN).

Financial need is a new category that replaces the existing parts of the general subsidy. The "financial needs of the TSU" (Act 2024, article 23) include:

- 1) compensatory needs;
- 2) educational needs;
- 3) development needs;
- 4) environmental needs;
- 5) complementary needs.

The financial needs of territorial self-government units will be financed by increased incomes from PIT and CIT and, if these are insufficient, by a general subsidy from the state budget. The financial needs will be a calculation element for determining the amount of the general subsidy.

The new system of incomes for territorial self-government units will be based on the determination of the financial needs of each territorial self-government unit. The calculated needs will then be compared with the increased incomes from the PIT and CIT shares. In the case of self-governments where the incomes from these shares are insufficient to cover the calculated financial needs, the territorial self-government unit will receive a subsidy from the State budget, which will be a compensation of the financial needs. In order to determine the compensatory needs, article 24(3) of the Law in question (Act 2024) defines the individual wealth index of the local government unit, which is calculated by dividing the sum of the basic tax incomes of the local government unit by the product of the number of inhabitants of the unit and the expenditure needs index. The recalculated number of inhabitants is determined on the basis of the actual number of inhabitants adjusted by the expenditure needs index.

The differentiating element of the 2003 legislative solutions is the introduction of a spending needs index, i.e., a numerical measure of spending needs in local government that takes into account the objective determinants of various expenditures in the largest areas of local government activity. These differentiating factors include: socio-demographic factors such as: the number and age structure of the population; the number of children, unemployed, poor or vulnerable groups; or differences in the cost of providing a particular service (e.g., water). Thus, the new revenue system takes into account not only income disparities (as is currently the case), but also differences in the expenditure needs of different types of people. The methodology for calculating this index is based on four steps:

1) identification of the main task areas constituting the largest part of current (net) expenditures of territorial self-government units' budgets, i.e. total expenditures less property expenditures. The following will be excluded from current expenditures: expenditures which have their own sources of financing (educational subsidy, waste disposal fee), expenditures on projects financed from European funds and other foreign sources of optional nature, expenditures on debt financing and funds from payments to the equalization system;

2) selection of objective determinants (variables) that may affect the variation of the size of current expenditure of a given local government unit. The determinants must be characterized by the following properties: be measurable with the help of statistical data, not susceptible to manipulation, a cause and effect relationship between the criterion and expenditure needs can be indicated, the criteria adopted must not discourage effective economic development policies;



3) analysis of the variables, during which their correlation with net current expenditure in the selected areas will be examined;

4) calculation of the conversion population using the Index of Spending Needs. The IEN itself is the sum of the sub-indices of expenditure needs calculated according to the formula set out in article 25(4) of the Act;

5) determination of the wealth index. The needs will be calculated for territorial self-government units whose wealth level is below the specified level of average wealth in a given category, and so for communes, poviats and voivodships – is not higher than 100% of the wealth index determined respectively for a given category of territorial self-government units, and for cities with poviat rights – is not higher than 80% of the wealth index determined for all cities with poviat rights.

Education is one of the main responsibilities of the municipalities and county councils. The method of financing education remains the same as in the 2003 Act. The basis for determining the education subsidy remains the amount from the previous year, taking into account changes in the scope of the educational tasks performed. The distribution of the total amount for educational needs is determined by a decree of the Minister of Education. In the new financing system, the amount of educational needs will be increased by the effects of an increase in the average salaries of teachers in kindergartens run by local authorities. This will make the system more flexible by moving away from a subsidy transfer to own income (Ministry of Finance, 2024: 4). Previous practice allowed local authorities to use the education subsidy to finance only the effects of teachers' salary increases, which was much criticized by local authorities (Horbaczewski, 2024).

In the new law, development needs are considered separately for each type of unit, which is expected to contribute to more precise support for the development of individual categories of local government. It is stipulated that a total amount of funds equal to 23% of the amount of property expenditure less the equivalent of property income generated by them and from subsidies earmarked for investment will be allocated to individual types of local government.

Subsequently, the amount of development needs identified for each category of local government unit was divided into two pools:

1) 60% of the basic pool, distributed among the territorial self-government units in proportion to the number of inhabitants; it is proposed to establish a minimum amount for the smallest territorial self-government units;

2) 40% of the investment pool, distributed among the territorial self-government units (territorial self-government units) in proportion to the share of the unit's calculated property expenditure in the calculated property expenditure of a given category of territorial self-government units. The calculated property expenses of the territorial self-government units shall be calculated as an average of the last three years, using the weights specified in article 28, paragraph 6, item 3 of the Law (the weight may not be less than 0 and more than 1), with the highest

weights being assigned to own expenses, then property expenses for programs financed from the EU funds, and the lowest to investments from state funds.

This construction of the distribution of development needs is intended to guarantee the income of each unit. In order to eliminate randomness, the average revenue and expenditure of the three most recent years available, based on data from the annual accounts, have been used to determine the total amount of development needs, as well as the distribution to each TSU.

According to the law from 2025, the algorithm for calculating the general subsidy for local government units will take into account ecological needs. Ecological needs are calculated for a local government unit on the territory of which there are areas of special natural values protected by law, which the legislator has included: national parks, nature reserves, landscape parks, protected landscape areas, landscape protection zones established in landscape parks and protected landscape areas, as well as Natura 2000 areas (Act 2024, article 29). The amount of the ecological needs of a given local government unit is determined by multiplying the basic rate for 1 ha of the area of a legally protected area by the converted area of legally protected areas, appropriate for a given category of local government units.

The base rate for 1 ha of legally protected area is set at the amount from the year preceding the budget year, adjusted by the consumer price index for the first half of the year preceding the budget year, in relation to the first half of the base year. In turn, the converted area of legally protected areas shall be calculated as the sum of the products of the area of legally protected areas and the weighting for: national parks – 2; nature reserves – 1; landscape protection zones established within the boundaries of landscape parks or protected landscape areas – 0.6; landscape parks and protected landscape areas - 0.1 and Natura 2000 areas – 0.15 (Act 2024, article 29, §2–5).

The proposed funding mechanism is intended to be an incentive for the creation of new forms of nature conservation. On the one hand, these areas introduce certain restrictions, but at the same time they offer new development opportunities. Municipalities will be able to use the additional funds to, among other things, stimulate the development of tourism and green jobs (Ministry of Climate and Environment, 2024).

The legislator has introduced supplementary needs in article 30 of the law under discussion. The amount of these needs for 2025 was calculated in detail in the transitional provisions. In the following years, the supplementary needs of the TSU will be determined in an amount corresponding to the valorized amount of the previous year's revenue supplement.

The amount of the general subvention for the territorial self-government unit for the financial year will be determined on the basis of the amount of the subvention from the year preceding the financial year. In subsequent years, the

general subsidy from the state budget will be calculated for territorial self-government units in the event that the increase of the increased part of tax revenue is insufficient to cover the increase of financial needs. The increase in financial needs in the course of the financial year may be the result of a change in the scope of tasks of a given category of TSU or the distribution during the financial year of funds from the reserve for supplementing TSU revenues. Thus, the general subvention will be of a supplementary nature, as the new system assumes that it is the income from the share in PIT and CIT taxes that will be the basic source of revenue for territorial self-government units.

Articles 32 and 33 of the Act on the Income of Local Governments refer to wealth adjustment. Due to the large income disparity among local governments, the legislator left the adjustment system in place, but changed the existing rules.

The adjustment will be based on tax incomes and general subsidies, which have not been taken into account so far. The adjustment will continue to apply to the richest units where the income in relation to the converted population of that unit is higher than 120% of the income in relation to the converted population of a given type of local government unit (Act 2024, article 32, §1). In a situation where the wealth ratio of a given local government unit is higher than 120% of the wealth ratio of a given category of local government units, the wealth adjustment is 50% of the excess of the wealth ratio of a given local government unit over 120% of the wealth ratio of a given category of local government units. The so-called "Janosikowe" will be eliminated, as the wealth adjustment will be made by reducing the amount of increased PIT and CIT incomes.

In the state budget, a supplementary reserve for the incomes of the units of local self-government, with flexible distribution criteria, will be established in the amount of 1% of the financial needs established for all units of local self-government, increased by PLN 700 million. The reserve will be used in a given financial year to co-finance current or investment tasks of particular social or economic importance for the local government. The amount of the reserve is allocated after consultation with the self-government.

The changes in the system of incomes of local self-government units introduced by the Act of October 1, 2024 are intended to provide local self-government units with the opportunity to provide the highest quality public services and development opportunities, taking into account the dynamic changes in civilization and socio-economic conditions. However, the law is not free of unresolved issues, which was pointed out by the self-government side during the project work.

### **3. IMPACT OF THE CHANGES INTRODUCED BY THE LAW OF OCTOBER 1, 2024 AND EXPECTATIONS FOR THE FUTURE**

The Act on Local Government Incomes, adopted by the Parliament in October 2024, is a compromise between the expectations of local governments and the

possibilities of the government. Work on the Act took place in a situation where the loss of revenue for local government units in 2023 and 2024 was estimated at PLN 30 billion per year. In reality, this amount will be higher, as the document 'Regulatory Impact Assessment' for the draft Act on the Revenue of Local Government Units does not take into account double-digit inflation and related salary increases (Ministry of Finance, 2024).

It follows from the calculations presented in Act on the Income of Local Government Units [Ministry of Finance, 2024] that basing the revenues of territorial self-government units from PIT and CIT on the incomes of taxpayers from the territory of a given territorial self-government unit, together with the incomes of taxpayers paying a lump-sum tax on registered incomes and the change of the source of financing territorial self-government units' needs (from general subsidy to incomes from PIT and CIT), the revenues of territorial self-government units from participation in PIT and CIT will increase in total in 2025 according to the new system by approx. PLN 93 billion (from PLN 108 billion to PLN 201 billion) as compared to the current system.

The change in the source of financing the needs of the self-government units from a general subsidy from the state budget to an increase in the incomes of the self-government units from participation in the PIT and CIT will result in a decrease in the incomes of the self-government units from the subsidy in 2025, in relation to the regulations currently in force, by approximately PLN 83 billion, i.e., from PLN 127 billion to PLN 44 billion. Similarly, the state budget expenditure on the same account will fall by the same amount.

On the basis of the new method of calculation set out in the Act, it has been estimated that the following amounts will be allocated to local government units for the various categories of needs:

- compensatory needs – approximately PLN 19.3 billion;
- development needs – over PLN 8.6 billion;
- environmental needs – approximately PLN 1.5 billion;
- supplementary needs – about PLN 6.6 billion.

Due to the elimination of payments made by territorial self-government units to the state budget on account of above-average incomes in favor of adjusting the revenues of these units, the expenditures of territorial self-government units will decrease by more than PLN 5.2 billion in 2025. For the state budget, this solution will be neutral, as both expenditures and revenues will decrease (Ministry of Finance, 2024: 10–11).

The changes proposed in the Act, despite their acceptance by the self-government side, raise doubts and concerns, as pointed out by self-governors such as Krzysztof Żuk, Mayor of Lublin, or Grzegorz Cichy, Mayor of Proszowice, self-governors of the Union of Polish Cities (Horbaczewski, 2024). The most controversial solutions are those related to education, which is the biggest burden on municipal budgets. In some municipalities, education accounts for up to 60%

of the budget. The gradual underfunding of education by more than PLN 2 billion per year over the last eight years has dramatically increased the so-called education gap (Horbaczewski, 2024).

One of the main problems is the model for annual estimation of educational needs, including expenditure on kindergartens (Union of Rural Municipalities of the Republic of Poland, 2024: 3). The position of the self-government side, addressed to the government, states that "the tasks of education and upbringing have so far been underestimated in a particular way. The educational needs calculated on the basis of the bill are far below the real expenditure on education" (Association of Polish Cities, 2024). The system does not take into account changes in the formation of teachers' salaries and wages, as well as civilization and demographic changes. So far, the shortfall in funding for educational tasks has been covered by local authorities from their own incomes, thus relieving the government of the need to increase the pool of funds from the state budget in real terms. During the work on the new law, the self-government side proposed the introduction of solutions that would guarantee the stability of the system in the area of educational tasks. The guarantee would have been the inclusion in the state budget of stable funding in the amount of at least 3% of GDP, as provided for in the Budget Act. However, this was not included in the adopted law. On the other hand, the Minister of Finance promised to continuously monitor the new income system in 2025 in order to identify any shortcomings and correct them in a future amendment (Local Government Service, 2024). This solution stems from the fact that the Act on Local Government Income will not come into full effect until January 1, 2026. The year 2025 will be a transitional period, which is why many of the Act's provisions are aimed at that year. The authority for this declaration is enshrined in article 117, which states that by June 30, 2026, the Minister of Finance will provide the Local Government Party with information on the effects of the Act, together with possible proposals for changes.

The adoption of the new law on local government incomes should be seen as a step in the right direction, especially as it comes at a time when the state budget situation is difficult. According to the explanatory memorandum to the draft law, every local government unit is expected to benefit from the reform of local government finance. The strengths of the proposed changes include an increase in the pool of own resources, on which local government units have full freedom to spend (as opposed to targeted grants). The independence of PIT and CIT incomes from government decisions on tax changes. The inclusion of the environmental component in the revenue sources, which gives municipalities with protected areas the opportunity to raise additional funds, and the per capita revenue potential in the equalization system.

In addition to the necessary and appropriate changes, the law will need to be adjusted in the future, as the legislator himself rightly notes. First of all, the determinants adopted in the Act, which will determine the level of expenditure

needs, will need to be fine-tuned. According to the preliminary opinion of the National Institute of Local Self-Government, local authorities will be able to influence the formation of some of the determinants through their policies, and these should be objective factors (Swianiewicz & Łukomska, 2024: 3–5).

The process of reforming the system of local government finance has undoubtedly begun, and it is to be hoped that it will continue in the direction of greater stability, independence and transparency. It will not be a so-called temporary solution that will last for decades, as has been the case so far.

## **CONCLUSION**

The work on the new law on the incomes of territorial self-government units was welcomed with great satisfaction and hope for the stabilization and depoliticization of the financial system in the local government.

Despite the controversies, the self-government and government sides were satisfied with the solutions proposed in the law, with a clear indication of the need for corrections in the future. These will be based on monitoring of the new provisions and their functioning in practice. The year 2025 is to be the period of their review, and the Minister of Finance is to present his conclusions and proposals for changes by June 30, 2026.

The idea behind the new law is to restore stability and transparency to the system of financing local government units. At the same time, it is a response to the changing socio-economic and political situation. Under the legislation, all local government units, although not each to the same extent, will receive increased streams of funding for public tasks based mainly on their own incomes, for which local government authorities have spending autonomy. The amount of self-government incomes has been freed from central government decisions on tax policy. The need to support self-governments in the area of development and ecology has been recognized, by defining development and ecological needs and granting them an appropriate financial component. A complete novelty is the separation of a new type of entity – cities with poviats rights, which have so far been included in both the municipal and poviats systems. A number of the solutions introduced deserve recognition. It should not be forgotten that there are also those that will require appropriate adjustments.

These include: the system of financing educational tasks and the 'determinants' adopted for individual algorithms determining the spending needs of individual TSUs. Only practice will show whether they have been correctly estimated and take into account the right variables.

Building a stable financing system for local government units will require both the government and the self-governments to work together on a multifaceted basis, with mutual understanding and partnership. Neither side can consider itself dominant, as the interests and needs of local communities are at stake, and it is at

the local government level that they are realized on the largest scale. It is to be hoped that the adopted regulations will not be treated as so-called 'temporary' with a long-term deadline.

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### ZAKRES I KIERUNEK ZMIAN DOCHODÓW JEDNOSTEK SAMORZĄDU TERYTORIALNEGO W POLSCE W NOWEJ USTAWIE Z 1 PAŹDZIERNIKA 2024 R.

**Cel artykułu.** Celem opracowania jest przedstawienie podstawowych założeń przyjętych w nowej ustawie o dochodach jednostek samorządu terytorialnego oraz zmian w sytuacji finansowej poszczególnych typów jednostek samorządu terytorialnego w Polsce.

**Metoda badawcza.** Artykuł ma charakter poglądowo-porządkujący, a do osiągnięcia zamierzonego celu wykorzystano przyjęty akt prawny, projekt ustawy wraz z dokumentami wprowadzającymi oraz opinie organizacji samorządowych.

**Wyniki badań.** Przyjęcie nowej ustawy o dochodach jednostek samorządu terytorialnego ma na celu zreformowanie systemu finansowego w kierunku przywrócenia stabilności i przejrzystości. Jednocześnie jest odpowiedzią na zmieniającą się sytuację społeczno-gospodarczą i polityczną. W myśl przepisów wszystkie jednostki samorządu terytorialnego, choć nie każda w równym stopniu, otrzymają zwiększone strumienie finansowania zadań publicznych oparte głównie na dochodach własnych. Wysokość dochodów samorządowych została uwolniona od decyzji władz centralnych w zakresie polityki podatkowej. Dostrzeżono konieczność wsparcia samorządów w obszarze rozwoju i ekologii, poprzez zdefiniowanie potrzeb rozwojowych i ekologicznych, oraz przyznania im odpowiedniego komponentu finansowego. Zupełną nowością jest wyodrębnienie z struktury samorządowej miasta na prawach powiatu. Szereg wprowadzonych rozwiązań zasługuje na uznanie. Nie należy zapominać, że są także takie, które będą wymagały odpowiedniej korekty. Do nich należą: system finansowania oświaty oraz „determinanty” przyjęte dla poszczególnych algorytmów określających potrzeby wydatkowe poszczególnych JST. Dopiero praktyka pokaże czy zostały prawidłowo oszacowane i uwzględniają właściwe zmienne. Budowanie stabilnego systemu finansowania jednostek samorządu terytorialnego będzie wymagało zarówno od strony rządowej jak i samorządowej wielopłaszczyznowej współpracy, wzajemnego zrozumienia i partnerstwa.

**Słowa kluczowe:** finansyzacja, szczęście, wskaźnik rozwoju systemu finansowego, kredyt dla sektora prywatnego, zrównoważony rozwój, kraje Europy Środkowo-Wschodniej.

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## DIRECTIONS OF CHANGES IN CUSTOMS CONTROL

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### DIRECTIONS OF CHANGES IN CUSTOMS CONTROL

#### ABSTRACT

**The purpose of the article.** In the article, two objectives are indicated: the first – the indication of the specific features of customs control as well as the identification and evaluation of the most important changes within this process with consideration for the specific conditions caused by the incompatibilities between the paradigm of facilitating and simplifying the international trade in goods and that of its security. Achieving the above purposes will allow for verification of the hypothesis that the fiscal purpose of customs control has been significantly diminished in favor of security.

**Methodology.** The methodology of the article is based on the analysis of subject-related literature, and document study. The article also uses a statistical method.

**Results of the research.** Implementing facilitation and enhancing security in the international trade has brought significant changes in customs control. The importance of risk management has increased, and the institution of the authorized economic operator has been introduced. Complicated structures of global supply chains, new forms of criminal activity and the war in Ukraine confirm that it is primarily security that should be the goal of customs control. However, this results in a reduced importance of the fiscal objective.

**Keywords:** customs control, facilitation, simplification, security, risk, fiscal purpose.

**JEL Class:** F18, F19, K 39.

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## INTRODUCTION

In customs law customs control is an institution that holds a role of special importance. According to Article 5(3) of the UKC, it means specific acts performed by the customs authorities to ensure compliance with the provisions of customs law and any other regulations concerning the entry, exit, transit, movement, storage, and end-use of goods that are moved between the customs territory of the EU and countries or territories outside it. Subject-related literature contains a few definitions of customs controls, it has always been precisely specified in legal acts through which it was regulated. One example is the definition adopted by Czyżowicz who relates customs control with customs supervision and stipulates that customs control consists of all activities undertaken as part of customs supervision meant to confirm that goods are imported or exported in accordance with legal regulations (Czyżowicz, 2004).

Activities performed during customs controls are aimed at ensuring the correct collection of customs duties related to the import of goods (fiscal function), verification of declared customs procedures, and what is particularly important, especially after the beginning of the 21st century, assurance of the broadly understood security (protective function). Therefore, the subject scope of customs control is extensive.

In the context of changes within the process of customs control, the period encompassing the end of the 20th and the beginning of the 21st century is particularly significant. The greatest impact was exerted by the introduction of the security paradigm as well as the attempt to incorporate it into the existing system for the international trade of goods facilitation and simplification (the facilitation and simplification paradigm). This process has resulted in several changes to the management of international goods trade, including customs control – one of the most important mechanisms within this activity. Additionally, the priority of customs control objectives has also been altered. Ensuring security has become one of the most important objectives of control. In this case, security should be understood broadly, namely ensuring public safety and order, protecting human and animal life and health, protecting the environment, and protecting the EU market.

It is necessary to note that customs control is a distinct form of control. A detailed analysis of changes within this process is not feasible without first addressing its specific character. Keeping this under consideration, it becomes possible to specify the article's two fundamental purposes: the indication of the specific features of customs control as well as the identification and evaluation of the most important changes within this process with consideration for the specific conditions caused by the incompatibilities between the paradigm of facilitating and simplifying the international trade in goods and that of its security. Achieving

the above purposes will allow for verification of the hypothesis that the fiscal purpose of customs control has significantly diminished in favor of security.

Applied research methods include literature analysis and critique, document study, and statistical analysis. The analysis of the statistics covers the period between 2021–2022.

## **1. SPECIFIC CHARACTER OF CUSTOMS CONTROLS**

Customs control or inspection is an extraordinarily complex and unique institution of customs law. This is because its model is simultaneously defined by norms introduced within international agreements, the EU legislation, and the laws of particular countries (multicentric). Its specific character may also be evidenced in that it directly concerns, first and foremost, the import or export of goods into or out of the EU customs territory to or from countries not lying within it, with its indirect subject being the activities of the entity trading those goods. Another aspect that is specific in the process of customs control is that of time. It is significant that customs controls dealing with particular goods occur mainly when those goods remain under the control of the customs authority, but only until the moment of their release. The above does not exclude the possibility of carrying out control activities *ex-ante* in situations when the goods have not yet entered the customs territory of the EU as well as after their release (*ex-post*) when the entity being the subject of the control no longer has at its disposal goods that are the subject of international trade. Customs control can, therefore, be carried out at every stage of transporting goods from third-party countries as well as after the release of goods, however, its effectiveness is often dependent on the aspect of time (Laszuk, 2017).

It should also be noted that the scope and purpose of the control are largely determined by the customs status of the goods as well as their stage of circulation. This indicates the specified by legal regulations range of possible activities that can be carried out by a customs body concerning the goods at various stages of the control process. Customs controls have two fundamental aims: the security of the EU and the protection of both national and EU financial interests (fiscal aim). However, the diminishing importance of the fiscal goals is increasingly evident due to the constantly reduced customs revenue as a result of the introduced trade facilitation measures.

The Table 1, defining the scope of import controls (release for circulation) additionally indicates their type. The rule is that each type of control is conducted independently although its application does not mean that other types of controls cannot be carried out at a later time. It should be noted that most types of controls focus on ensuring security. Additionally, in random controls, security plays a more significant role.

Table 1. Scope and purpose of customs control with consideration for the customs situation of the goods (based on the example of imports)

<b>Customs status of goods - stage of goods turnover</b>	<b>Scope of customs control</b>	<b>Purpose of customs control</b>
Non-Union goods – remain the responsibility of the carrier or freight forwarder and the customs authority has only the information about the goods from the summary declaration.	Control of the entity's intention to take a specific action, which involves the entry of goods into the customs territory of the EU. The subject of control is information about the goods, shipper, consignee, and carrier. The summary declaration is controlled. <b>Ex-ante customs control (preliminary control).</b>	EU security
Non-Union goods – entered the customs territory of the EU (crossed the EU border), and before the submission of the customs declaration and under customs supervision (the possibility of taking action by the customs authority)	Customs control aimed at verifying whether the goods pose a threat to broadly understood security (examining goods including sampling - determination of parameters, composition, function of goods; control of means of transport). The scope of the inspection is often conditioned by the conducted risk analysis. <b>Control in the field of security of goods.</b>	EU security
Non-Union goods – a customs declaration has been submitted for the goods, but the release of the goods into the requested customs procedure has not yet occurred.	Control of the calculation elements included in the customs declaration (verification of the customs declaration) and the documents confirming the information contained in the declaration. <b>Control of the customs declaration.</b>	EU security and fiscal
Union goods – release for the requested customs procedure, which gives the customs authorities limited scope for action.	Inspection concerns mainly documents (customs, accounting, commercial), since most often the goods are no longer there. <b>Ex post customs control</b>	Fiscal

Source: developed by the author.

The unique character of customs controls can also be seen in the institution introduced within the UCC, requested customs control. In this situation, the holder of the goods being subjected to control can at any time, with permission from customs authorities, examine or sample goods to resolve their tariff classification, customs value, or customs status (Art. 134 sub. 2 UCC). The aim of requested customs control may be the determination of missing elements when the party requesting the control does not possess all the information necessary for the proper classification of the goods or its verification, in cases when the goods' holder has

doubts regarding the agreement of the goods in question with documents provided by their foreign exporter. Requested customs control is a preliminary process of product verification. The Union legislator clearly defined the forms of control – examination or sampling of goods. This investigation allows not only for the verification of data contained within documents attached to the goods by the supplier but is also significant in determining the type, quality, and quantity of imported goods (Kosonoga, 2001). These activities are especially important from the perspective of subjecting these goods to the process of particular customs procedures (Lasiński-Sulecki, Rudyk & Śpiewak, 2007).

However, it must be noted that activities initiated at request do not exhaust all levels of assigned controls. The examination of goods is aimed at determining the goods' actual status. The results of the examination are compared with descriptions or information contained within documents held by the requesting entity. Yet, there does not exist a stage that identifies the causes of discrepancies if such do occur. The rule is that the state determined through examination is accepted as factual. The above-described institution is not defined either in tax law or in controls carried out in accordance with business law. It is characteristic solely of customs law (Laszuk, 2017).

## **2. THE PARADIGM OF FACILITATION AND SIMPLIFICATION AS WELL AS THAT OF SECURITY AND CUSTOMS CONTROL**

Within the last several decades (the end of the 20th and the beginning of the 21st century) customs policy and customs law have evolved significantly. This was connected with events that have had a considerable influence on trade occurring within the economic sphere as well as those concerning security. The role of the traditional paradigm of customs policy and law concerning financial aspects – the collection of tariffs and other public duties – has, over the years, declined. Efforts initiated internationally as early as the end of World War II meant to liberalize trade. Initially decisions were made concerning rules and procedures reducing industrial trade barriers and then, after the end of the Uruguay Round, activities meant to liberalize other areas of trade, such as agriculture, services, and intellectual property were initiated (Głodowska, 2015). Aside from lowering duties on goods, these steps meant to shorten processing time as well as to reduce the cost of international trade transactions, (Portugal-Perez & Wilson, 2009). At the end of the 20<sup>th</sup> century, these schemes caused the formulation of a new paradigm within international trade – facilitation and simplification. Literary sources clearly emphasize that this model primarily focuses on the simplification and harmonization of trade procedures through the reduction of transport costs (Behar & Venables, 2011), efficient customs procedures (Messerlin & Zarrouk,

2000), transparent and uniform legal regulations, and improved IT infrastructure (Wilson, Mann & Otsuki, 2003).

However, the increased need to ensure security and public order (terrorist attacks of the early 21st century), the necessity for protecting the lives and well-being of people and animals, the environment as well as the common EU market resulted in the emergence of a new paradigm in international trade, one parallel to that of facilitation, that of security. It created the demand for the development of global norms (Wolfgang & Dallimore, 2012) that would ensure the safety of international trade.

The first implementation of the facilitation and simplification paradigm and the subsequent appearance of the paradigm of security caused several significant changes in the rules of international trade in goods. The introduction of solutions meant to ensure the security of that trade in the context of already implemented significant facilitation and simplification measures, which was particularly important. Having noted the fact that solutions implemented within the sphere of facilitation often did not fully comply with those connected with security, the introduction of resolutions balancing those two aspects demanded a special attention from the EU legislators (Laszuk & Sramkova, 2017). Striving to attain that balance border services must simultaneously deal with two types of risk – potential incompatibility with particular legal regulations and the potential lack of facilitation at a level expected by their government. Despite the belief that the above-listed paradigms are contrary to one another, control and facilitation are not mutually exclusive (Widdowson, 2006).

One example of balancing between the above-mentioned paradigms is the institution, introduced in 2008, of the authorized economic operator (AEO). Entities possessing such a status are subject to modified rules of customs control. Verified through a thorough auditory process an authorized enterprise benefits through several facilities and simplifications in customs proceedings concerning goods including those pertaining to carried-out customs controls. It gains, therefore, certain privileges in that respect (fewer controls, is informed by authorities about the intent to carry out controls) unless customs control is required due to elevated levels of risk or the need for inspection resulting from other EU regulations.

In situations where an analysis of risk is the basis for conducting control, the fact that an enterprise holds the status of an AEO is considered. Entities holding AOES certificates are subject to fewer document and physical controls concerning security while those with AEOC certificates are not as scrupulously inspected with regard to fiscal risks (connected to misestimation of customs duties and taxes). The regulations do contain an exception to the above-described rule concerning fewer controls – the right to a decreased number of physical and document controls is not observed in situations where an agent having AOE status (such

as a customs agency) represents an entity that does not enjoy such a status (Laszuk, 2017).

However, the greatest impact on the rules governing customs controls has been exerted by the paradigm of security. Balancing trade facilitation, standardization, and uniformization of procedures concerning international supply chains and the need for greater control and intervention, has led to an increased importance of risk analysis or, in a broader sense, management of customs risk. Currently, customs controls are mainly conducted on the basis of risk analysis. Effective employment of rules governing risk management systems is key to reconciling the simultaneous functioning of two paradigms – facility and security. Risk management and the analysis of risk have become fundamental to customs controls. This can be corroborated through the definitions of customs risk as well as risk management, in force since 2016, within the Union customs code. The concept of risk stipulated in Art. 5 Sub. 7 of the UKC clearly indicates situations requiring customs controls ("»risk« means the likelihood and the impact of an event occurring /.../, which would prevent the correct application of Union or national measures, compromise the financial interests of the Union and its Member States or pose a threat to the security and safety of the Union and its residents, to human, animal or plant health, to the environment or to consumers"). In turn, risk management has been defined by the EU legislatures through activities. Management of customs risk, therefore, encompasses activities such as collecting data and information, analyzing and assessing risk, prescribing and taking action, and regularly monitoring and reviewing that process and its outcomes, based on international, Union, and national sources and strategies. Customs authorities manage risk to differentiate between levels of risk with goods subject to customs controls or supervision as well as to determine if, and if so where, goods will be subject to particular customs control. This manner of defining risk management closely binds it to the institution of customs control. Management of customs risk is similarly defined in the subject-related literature – one such example is the definition presented by Drobot and Klevlee (2016) according to whom it is the systematic effort on developing and the practical implementation of preventative measures and minimization of threats, assessment of the effectiveness of their application as well as verification of recommended customs operations assuring continued actualization, analysis and authentication of information available to customs authorities. Operationally, management of customs risk is an effective tool in the processing of large numbers of people, goods, and vehicles with limited resources and fluctuations in the levels of risk without hindering the flow of legal trade. It is possible, however, to also find definitions that too closely associate risk management with control. Harmash (2019) claims that the management of customs risk is a key method of customs control. Customs risk management cannot be solely identified with customs

control. Keeping in mind the manner of defining the term "risk management" in management sciences, the understanding of this concept must be accepted in a broader scope.

Risk management's extensive scope also ensues from such documents as the Kyoto Convention or the SAFE Framework of Standards to Secure and Facilitate Global Trade. Within these documents, customs risk management is identified as the systematic application of management procedures and practices providing customs authorities with information crucial to the handling of movement or transport of goods that may pose a threat (Kyoto Convention, 1973). The scope of the definitions quoted above is similar to the interpretation adopted by the EU legislators.

Referring to the above, customs risk management should, therefore, be understood as an interactive process in which information is continuously updated, reviewed, and amended (WCO, 2011). This mechanism consists of several elements: ascertainment of context, identification of risk, risk analysis, assessment and determination of risk priorities, and risk prevention. In customs controls, identification and analysis of risk are of particular significance. Correct implementation of these two stages of risk management results in effective customs control.

Identification of customs risk is the process of recognizing threats that may negatively impact the achievement of goals assumed by customs authorities. (In Poland, the purpose of the Customs and Fiscal Service is to protect the interests of the state and the EU customs territory. Specifically, customs authorities are to collect duties related to the import of goods into the EU customs territory, to ensure that trade in goods takes place in accordance with the law, to ensure the safety of EU citizens, the EU market, and protection of the environment). The process of risk identification mainly concerns the discovery of new phenomena and dangerous activities of entities resulting in the violation of legal norms within the scope of the competence of a given customs administration. This mechanism, therefore, encompasses the identification and recognition of threats. At this stage, it is important to formulate questions concerning events that may impact the particular aim realized by customs authorities which will allow the discovery of the potential character of the threat as well as ones leading to information regarding potential causes – why and how a given situation occurred (Widdowson, 2020).

Identification of risk is closely connected to risk analysis and assessment which permit the determination of the probability and consequences of a particular risk. Each identified risk initiates certain activities such as the utilization of information about that risk which encompass the probability and frequency of occurrence of such risk, the estimation of its impact, cost, and consequences of these events with consideration of aspects including political aims, legal, and



social structures. Lists of such risks can be analyzed and compared with current data to verify whether conditions accompanying it are constant or if there is a need to conduct its assessment again.

Referring to the above, the identification and analysis of customs risk is of particular significance for customs controls since its conclusions, as well as the previous identification of that risk, determine whether the control will be carried out and what will be its aims and scope. As stated above, activities initiated as part of risk analysis primarily allow for the quantification of risk and later the consideration of the sources of the identified risks, assessment of their potential consequences for aim realization, and, further on, the establishment of the probability of the ensuing of those ramifications. The conducted analysis, therefore, considers the probability of the occurrence of a particular event as well as its potential consequences and their extent (WCO, 2011).

Especially significant in the context of security purposes is the risk analysis carried out after lodging of the entry summary declaration which contains so-called "security data". This is yet another solution having a significant impact on customs controls introduced after the formulation of the security of international trade paradigm. The aim of the established in 2005 above-mentioned solutions was the improvement of the security of the entire EU as well as better targeted customs controls through the creation of a shared basis for risk analysis. Data contained within the declaration permit customs authorities to conduct risk analyses concerned with the protection and safety of citizens, the environment, and the EU market before a given good enters the EU territory. Information contained with the summary declaration does not regulate the good's legal status but is aimed at identifying it, completing the process of risk analysis, and determining threats that may impact transport security. Hence, under these circumstances two rules are important: that the information be reliable and that the declaration is lodged in a timely manner. The summary declaration may be considered a transitional measure, utilized mainly for non-union goods (Lsiński-Sulecki, Rudyk & Śpiewak, 2007), which is the main basis for conducting risk analysis focusing on the security and safety of entry goods that may, further on, result in so-called security control. Risk analysis can also be conducted after the filing of the customs declaration. However, in this situation, special significance is afforded to financial risks, which does not mean that the control does not include security aspects.

The functioning of the security paradigm in international trade as well as of solutions dealing with this aspect (summary declaration, risk analysis) cause the emergence of two types of customs control – the ex-ante control (preliminary customs control) and the security control. The ex-ante control is realized before the initiation of activities connected with the introduction of non-union goods into the EU customs territory. Its character is, therefore, preventative, providing

the possibility for the prevention of activities that violate the law. This type of control allows the assessment of risk that may ensue from the entry of the goods onto the customs territory of the European Union (Kurowski, Ruśkowski & Sochacka-Krysiak, 2000). This type of control very often determines whether there is a need for security controls.

Considering the introduction of the security paradigm as well as a considerable rise in the number of threats appearing in the last several years within the international environment, the emergence of a new type of control, one that has become an important link in the security of the international supply chain, the security control, has gained special significance. It must be noted that when it comes to these types of controls the notion of security (safety) should not be understood solely as threats to public safety but rather in a broader sense as stated above. The security control (check) concerns prohibitions and restrictions justified on the grounds of public morality, public order, the protection of the health and life of humans, animals, or plants, the protection of the environment, the protection of national treasures, and the protection of intellectual, industrial and commercial property.

The right to conduct security customs controls results from the text of Art. 134 Sub. 1 of the Union Customs Code according to which, from the moment goods enter the customs territory of the EU (the exact moment they cross the exterior border of the EU), they become an object of customs supervision and may be subject to customs controls. To identify the earliest moment when a security control may be conducted, it is necessary to invoke the text of Art. 139 Sub. 1 of the UCC which imposes an obligation of an immediate presentation of goods introduced into the EU customs territory to customs authorities. For this reason, security control is most often initiated after the fulfillment of two criteria: the entry of goods into the customs territory of the EU and their presentation to customs authorities. Security controls are characterized by a lack of prior notification which is justified by their aims.

The above-described solutions concerning customs controls are connected to ensuring safety and security. The significance of customs controls, however, in terms of proper collection of customs duties and taxes liable for the importing of goods should not be completely discounted (fiscal purpose). For reasons of conceptual shortcomings which allow for significant differences in interpretation, resulting in differences in the manner of risk management frameworks are implemented by various member states, dishonest importers can import goods mainly at those points of entry into the EU where the levels of controls are low. The European Union, therefore, to increase the effectiveness of, primarily financial, risk management, has issued an implementing decision wherein it stipulated detailed requirements concerning the management of such a risk – Commission’s Decision on Financial Risk Criteria (FRC Decision 2018). It is a set

of rules that enable the customs clearance systems of member states to systematically identify (or "electronically mark") transactions that constitute a potential financial risk and require further controls. This is the first legally binding implementing decision where shared criteria and norms aimed at solving problems connected to financial risk have been established (European Court of Auditors, 2021). The framework for fiscal risk management developed by the Commission in cooperation with member states guarantees a homogeneous carrying out of customs controls to safeguard the financial interests of the EU. Such harmonization concerning identifying subjects of controls may ensure that the financial interests of the EU are protected. The FRC encompasses most known types of financial risk and facilitates a more uniform approach to customs controls (European Court of Auditors, 2021).

The institution of customs control was also impacted by solutions related to the facilitation of the international trade of goods. This concerns the facilitation of customs controls. However, these may be associated with some doubts and mainly refer to the institution of self-assessment. This solution, implemented by the EU legislators, may incite some misapprehension in the contexts of security as well as the legal definition of customs control which clearly determines entities that are authorized to perform it. The EU legislators granted the ability of self-assessment to authorized economic operators (AEO) concerning customs clearance of goods that have been introduced to the customs territory of the EU and will then be introduced to the market, including the ability to conduct controls under customs supervision. The results of carried-out controls are treated by a given authority as if control activities were performed by that authority. Considering the fact that the regulations of customs law do not foresee a different type of control it should be assumed that these procedures are performed as part of a customs control.

The introduction into the EU customs code of the above-described institution signifies a change in the relationship between customs authorities and entities involved in the international trade of goods, from the traditional control and issuing directives to one more based on trust (Liu, Tan & Hulstijn, 2009). It must be noted, however, that control activities completed by the declaring entity should be defined as self-assessment (self-control) and should be excluded from customs controls (Laszuk, 2017). It is also necessary to emphasize that this solution is only characteristic to customs controls and similar mechanisms cannot be found in any other types of controls.

In reference to the above, it should be stated that this solution is a fundamental challenge not only with respect to safety but also to the collection of import duties and taxes as well as security. Relinquishment of control activities, some of the most important means of verification, to authorized economic operators, raises the question of whether the developed mechanisms of verifying AEOs are sufficient. Far-reaching simplifications have been implemented with respect to customs

controls and, at the same time, it is maintained that customs controls are the main guarantee of safety and security in international trade of goods.

In performing an analysis of the changes occurring in customs controls it is also necessary to consider how the implemented changes impact the execution of customs controls. These numbers have been presented in the Tables 2 and 3.

Table 2. Percentage of declarations subjected to customs control in all import declarations (period 2012–2022)

<b>Year</b>	<b>Submitted Customs Declarations</b>	<b>Declarations subject to customs control</b>	<b>Percentage of declarations subject to control in all declarations</b>
<b>2012</b>	1438493	65347	4.50%
<b>2013</b>	1644300	46303	2.80%
<b>2014</b>	1938868	53610	2.80%
<b>2015</b>	2162227	121215	5.60%
<b>2016</b>	2483193	132877	5.40%
<b>2017</b>	2835576	209312	7.4%
<b>2018</b>	3358245	317791	9.40%
<b>2019</b>	3665052	120181	3.30%
<b>2020</b>	3714974	74921	2%
<b>2021</b>	4449618	86605	1.90%
<b>2022</b>	3822817	89850	2.40%

Source: own study based on data obtained from the Analytical Center of the Chamber of Tax Administration in Warsaw.

Concerning import, the last four years have shown a clear reduction in the number of customs controls. This also may be the result of control priorities defined through customs and tax control by the National Revenue Administration. Analysis of customs declarations (Table 2) that were subjected to customs controls shows that between 2019 and 2022 there was a significant decrease in controlled declarations even though the overall number of entry declarations rose. This is visible both in number values as well as in the share of controlled declarations in all submitted declarations. The cause of the decrease in controls should be sought in the rise of filed summary customs declarations which can be lodged by authorized economic operators (AEO) – as trusted entities, they are subject to less control. The reduced number of customs controls is also connected to the change of priorities – the lesser significance of fiscal aims resulting in less and less revenue from customs duties (this is due to the economic modification of customs duties, the wide-ranging system of preferences, the operation of the Generalized

Scheme of Preferences – all of which reduce the tariff rates in the tariff). In Poland, customs control and fiscal control have been combined – it is now customs and fiscal control. For this reason, the number of realized customs controls is smaller than that of fiscal or tax controls (the results of these controls bring greater benefits to the country's treasury).

The sources of control directives assigned to customs declarations presented in Table 2 most often include risk analysis followed by: random checks, decisions made by the disposer who expresses doubts regarding the declaration, introduction of a directive by the administrator, and segmentation.

Table 3. Percentage of declarations subjected to customs control in all export declarations (period 2012–2022)

Year	Submitted Customs Declarations	Declarations subject to customs control	Percentage of declarations subject to control in all declarations
2012	1442315	17822	1,20%
2013	1586577	14224	0,90%
2014	1569212	21189	1,40%
2015	1758157	22238	1,30%
2016	2060219	39048	1,90%
2017	2348646	39624	1,70%
2018	2535490	15906	0,60%
2019	2742890	14532	0,50%
2020	2949181	23764	0,80%
2021	4194770	31270	0,70%
2022	4006034	45878	1,10%

Source: own study based on data obtained from the Analytical Center of the Chamber of Tax Administration in Warsaw.

Falling numbers of controls can also be seen for export although in this case, the percentage of controls in relation to received declarations was always significantly lower than in import. Referencing Table 3 it should be stated that only a small number of customs declarations was subject to customs control. The number of declarations that were checked makes up a small percentage of the overall amount of lodged customs declarations. This is the consequence of the fact that exit procedures in comparison to entry procedures carry a low level of financial risk. Customs exit procedures do not include the collection of customs duties. Goods leaving a given customs territory will no longer be a threat to public

safety, the health and life of humans, animals, or plants nor to the environment. It must be stressed, however, that controls connected with the safety of goods most often occur within the territory of the country whose customs territory the products enter. Hence, the risk of threats to safety connected to the exit of these goods is low and customs controls are infrequent.

However, it must be mentioned that all risks cannot be completely ruled out – situations where the amount of goods that exit the customs territory of the EU is smaller than declared allowing for the entity implementing the export procedure to try to obtain a greater tax refund than what is owed for the actual amount of goods exported. A smaller number of controls is also problematic with respect to dual-use goods (products which, although designed by the manufacturer for civilian applications, may be utilized by end-users for military purposes). Sometimes it is impossible to determine solely based on a customs declaration whether the goods in question are dual-use goods since this is not clear from their assigned code but is determined by their specific characteristics, often very precisely defined. In this situation, the properties of such goods can be established through customs control. A smaller number of controls signifies diminished security because exported goods may be used, for example, to prepare terrorist attacks.

## **CONCLUSIONS**

First, the implementation of the paradigm of facilitation and simplification and then that of security brought significant changes in customs controls – one of the most important institutions of customs law. Customs control is a specific kind of control, a fact that can be substantiated through the subject of that control (goods) or its aim that depends on the customs status of the good as well as the occurrence of other types of control, not known in other domains, such as law or management, like control at request. For this reason, the introduction of solutions aimed at ensuring the security of international trade in the context of already implemented significant facilitations and simplifications was especially difficult. It resulted from the fact that the solutions introduced in the area of facilitation often did not completely meet the assumptions within the sphere of security where customs control plays a particular role.

The solution which guarantees the proper simultaneous function of facilities, as well as solutions connected with security, is the institution of the AEO. It provides a range of facilitation measures in international trade (including in customs control), while a thorough audit conducted before granting the permit ensures security. However, it turned out that it allowed for far-reaching solutions, such as self-control, which may threaten both security and the collection of customs duties in the required amount (especially in the case of anti-dumping

duties). Unfortunately, the relationship between customs authority and entities carrying out international trade in goods based on trust, may not prove effective.

In the security sphere, risk management is of particular importance. Currently, in an era of globalization and progress in worldwide exchange, a lack of customs risk management would constitute a significant obstacle in the international exchange of goods. The conduction of numerous traditional controls would cause delays in a good or product reaching its destination resulting in greater costs. High turnovers, complicated structures of global supply chains, development of new forms of criminal activity, terrorist threats, and the war in Ukraine are only some of the factors and trends that result in challenges to security causing a need for more and more efficient and effective customs controls. The solutions identified in the above article are meant to fulfill that aim. However, keeping in mind the fact that the phenomenon of dumping is becoming more common, which raises the importance of antidumping duties, controls concerning the accuracy of customs duties should also, as with security controls, be considered significant.

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#### KIERUNKI ZMIAN W KONTROLI CELNEJ

**Cel artykułu.** W artykule wskazano dwa cele: pierwszy – wskazanie specyfiki kontroli celnej oraz drugi – identyfikacja najważniejszych zmian w kontroli celnej z uwzględnieniem szczególnych warunków spowodowanych niezgodnością między paradygmatem ułatwiania i upraszczania międzynarodowego obrotu towarowego a paradygmatem jego bezpieczeństwa. Osiągnięcie powyższych celów pozwoli na weryfikację hipotezy, że cel fiskalny kontroli celnej uległ znacznemu zmniejszeniu na rzecz bezpieczeństwa.

**Metoda badawcza.** Wśród zastosowanych metod badawczych należy wskazać metodę analizy i krytyki literatury, metodę badania dokumentów oraz metodę statystyczną.

**Wyniki badań.** Wdrożenie ułatwień i zwiększenie bezpieczeństwa w handlu międzynarodowym przyniosło znaczące zmiany w kontroli celnej. Wzrosło znaczenie zarządzania ryzykiem, wprowadzono instytucję upoważnionego przedsiębiorcy. Skomplikowane struktury globalnych łańcuchów dostaw, nowe formy działalności przestępczej i wojna na Ukrainie potwierdzają, że celem kontroli celnej powinno być przede wszystkim bezpieczeństwo. Jednak skutkuje to zmniejszeniem znaczenia celu fiskalnego.

**Słowa kluczowe:** kontrola celna, ułatwienia, uproszczenia, bezpieczeństwo, ryzyko, cel fiskalny.

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# FINANCING OF CHURCHES AND RELIGIOUS ASSOCIATIONS IN POLAND COMPARED TO MODELS USED IN SELECTED COUNTRIES IN EUROPE AND THE WORLD

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## FINANCIALIZATION AND LEVEL OF HAPPINESS IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT. THE CASE OF CENTRAL AND EASTERN EUROPEAN COUNTRIES

### ABSTRACT

**The purpose of the article.** To review the regulations regarding the financing of churches and religious associations used in selected countries.

**Methodology.** The review of the regulations regarding the financing of churches and religious associations used in selected countries and statistical and descriptive methods.

**Results of the research.** The need for changes in financing in the future.

**Keywords:** church fund, church tax, religious associations.

**JEL Class:** Z1, Z12, Z1.

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## INTRODUCTION

In Poland, as in other countries, the creation of churches and religious associations is guaranteed by law and results from the state's declaration of ensuring freedom of conscience, religion and the freedom to publicly and privately express one's beliefs to every citizen (Art. 1, Act of 89.05.17). According to the Act, churches and religious associations mean a community with its own system, doctrine and rituals, established for the purposes of professing, promoting and teaching religious worship. The organization and activities of churches and religious associations are regulated by the Religious Law. It defines the rights and obligations of citizens resulting from the accepted religion or worldview, as well as the principles of establishing and operating churches and religious associations in the country. It describes the mutual relations between the state and these individuals, determining the normative attitude of the state towards religion, both in the individual and collective dimension, outlining the scope of civil liberties. Particular countries have developed their own systems of relationships between the state and churches and religious associations. They include the principles of cooperation with the state, as well as methods of financing them. The method of financial support for churches and religious associations adopted in religious law includes maintaining them from their own property and various types of external funds from the believers and from state subsidies.

These solutions, and especially the validity of financing churches and religious associations from public funds, arouse much controversy and social emotions, which inspired the authors to undertake research on the problem of financing churches and religious associations. As a consequence, the main aim of the article was to review the regulations regarding the financing of churches and religious associations used in selected countries and to compare these models with the church fund used in Poland. The specific goal is to present the advantages and disadvantages of financing churches and religious associations used in Poland and the church tax proposed in many European countries, including Germany and Austria.

The accepted goals determined the methods and structure of the article, which was divided into four parts. The first one describes churches and religious associations as public utility institutions and their place in the state structure, as well as the basic state-church relations. The next part presents the methods of financing churches and religious associations in selected European countries and the world. The third point analyzes financing of churches in Poland, with particular emphasis on the Church Fund. The last part characterizes the church tax and other fiscal solutions regarding the supply of religious associations and churches based on the example of Germany and Austria.

The article uses a historical and legal method consisting in the analysis of legal regulations and literature that led to the education and introduction into the Polish legal system of the institution of a religious association and the methods of its financing. Another method used is the dogmatic (analytical) method, which enables the analysis of specific legal provisions, in particular religious law, the Act on the State Takeover of Dead Hand Properties while maintaining the rules of literal, systemic and teleological interpretation, as well as the analysis of court decisions with reference to concepts developed by the doctrine. This method is important for determining the legal nature of churches and religious associations as public benefit organizations, as well as showing the methods of financing them. The work also uses the comparative (legal-comparative) method to compare the provisions of the Polish law with the provisions of other countries (Germany, Austria).

Using this method, a verified funding assessment based on the use of the church tax was presented. The third part also uses statistical and descriptive methods to present the sources and structure of financing of churches and religious associations in Poland. The paper ends with a summary and assessment of the current solutions as well as conclusions regarding the need for changes in financing in the future.

## **1. CHURCHES AND RELIGIOUS ASSOCIATIONS AS PUBLIC UTILITY INSTITUTIONS AND SOURCES OF THEIR FINANCING**

A democratic state of law is based on the existence and functioning of civic organizations conducting activities for the common good, which also include public benefit organizations (hereinafter referred to as PBO). The impetus for introducing detailed regulations regarding PBO was the need to take into account the role played by non-governmental organizations in the implementation of public tasks in Polish legislation (Masternak, 2020: 138–167). The provisions on conducting public benefit activities in the sphere of public tasks, obtaining the status of public benefit organizations and the principles of their financing are included in the Act of April 24, 2003 on public benefit activities and volunteering (Journals of Law 2003.96.873 as amended).

Pursuant to the above Act, non-governmental organizations, in the sphere of public tasks specified in the Act, may conduct the so-called public benefit activities, i.e., socially useful activities in the field of, among others, social assistance, family support, charity activities, activities for disabled people, people of retirement age, science, higher education, education, upbringing and activities

for children and young people, including recreation for children and young people<sup>1</sup>.

An entity may obtain the status of a public benefit organization if:

- conducts public benefit activities, which means that all activities of this entity must fall within the sphere of public tasks;
- conducts this activity continuously for at least two years;
- this activity is carried out for the benefit of the entire community or a specific group of entities, distinguished due to a particularly difficult life or financial situation in relation to society;
- allocates the surplus of revenues over costs for public benefit activities;
- has a statutory collective control or a supervision body, separate from the management body and not subordinate to it in the scope of internal control or supervision;
- ensures that members of the management board meet the conditions set out in the Act on Public Benefits, including they cannot be legally convicted of an intentional crime prosecuted by public indictment or a fiscal crime;
- has provisions in its statute protecting the organization's assets;
- in the case of an entity conducting business activity, this activity should be additional (side) in relation to its statutory activity (Trębska, 2022: 105–122).

Public benefit activities may be conducted by non-governmental organizations and other entities which, unlike non-governmental organizations, do not have to be non-profit organizations, which means that they can make a profit. The regulations provide for the possibility of performing public benefit activities not only free of charge, but also for a fee if organizations receive remuneration for the implementation of public tasks. In such a case, income from paid public benefit activities is used exclusively to conduct these activities.

In this context, public benefit activities may also be carried out by churches and religious associations if, in addition to performing tasks in the field of religious worship, their statutory goals include the provision of social and educational assistance (Staszczyk, 2022). The regulations regulate in detail the issues related to determining the legal nature of church institutions and other religious associations, also as public benefit entities, recognizing the socially useful activity of churches and religious associations, which determines their recognition as public benefit institutions (Act of 89.05.17 on guarantees of freedom of conscience and religion).

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<sup>1</sup> The catalog of public tasks that can be performed by non-governmental organizations is included in Art. 4 of the Act of April 24, 2003 on public benefit activities and volunteering.

The Act on Public Benefit Activities and Volunteerism grants church organizations and religious associations a special status, including: the acquisition of the status of a public benefit organization by such organizations does not impose on them the obligation to conduct only socially useful activities. It is sufficient to separate this activity in a way that ensures proper identification in organizational and accounting terms (Article 21 of the Act), which in practice means separating a unit dealing with such activities within the church legal person. The issue of allocating income for public benefit activities is also regulated differently in relation to non-governmental organizations. Church organizations and religious associations must devote not all of their income to this activity, but only all of the income obtained as a result of conducting public benefit activities (Plisiecki, 2013: 161–183).

At the end of 2020, there were 9.3 thousand PBO companies operating in Poland. They constituted 9.7% of active non-profit organizations such as associations and similar social organizations, foundations, social religious entities and economic self-government (Central Statistical Office, 2021). The largest part of public benefit organizations were associations and similar social organizations (73.0%), followed by foundations (25.9%) and social religious entities (1.1%) (Trębska, 2022: 105–122).

Obtaining the status of a public benefit organization by churches and religious associations allows these entities to be granted certain privileges in the area of financing sources. Therefore, organizations of churches and religious associations, just like non-governmental organizations, may be financed from various sources, including:

- membership fees;
- subsidies from public and private funds;
- donations;
- sponsorship;
- 1.5% deduction from personal income tax;
- public collections;
- court damages;
- income from the organization's assets, capital investments;
- paid public benefit activities;
- income from business activities;
- inheritances and bequests;
- other sources (including loans and credits) (Trębska, 2022: 105–122).

Granting church organizations and other religious associations the status of PBO allows them to solve the problem of insufficient financing and lack of funds to conduct charitable and educational activities for the local community as well as the needy and socially excluded. It enables, among other things, raising funds from the 1.5% tax transferred by individuals. Like all PBOs, they can spend the

money received from 1.5% on public benefit activities (Art. 27 of the Act on public benefit activities and volunteering).

In Poland, the source of income for churches and other religious associations as public benefit organizations most often comes from payments from institutions or third parties (government and local government subsidies, 1.5% of personal income tax, donations from natural and legal persons and membership fees (Trębska, 2022: 105–122). The tax may be transferred in an annual return or in a separate declaration. It is important that 1.5% is transferred only from a tax return submitted before the deadline for its submission, i.e., by April 30 of the year following the tax year, or from a correction of the return, if it was made within one month of the deadline for submitting the return tax (Brzostowska & Kubiesa, LEX 2024].

Another privilege granted to churches and other religious associations as public benefit organizations is exemption from certain taxes and fees. In relation to public benefit activities conducted by these organizations they are entitled to exemption from:

- corporate income tax;
- real estate tax;
- tax on civil law transactions;
- stamp duty;
- court fees (Plisiecki, 2013: 161–183).

The possibility of PBO including churches and religious associations, to benefit from income tax exemptions is conditional on the allocation and expenditure of the income generated for statutory activities, excluding business activities (Masternak, 2020: 138–167). In turn, real estate tax exemption is available when real estate or parts thereof are occupied by PBO for the purpose of conducting free statutory public benefit activities. The tax rate for real estate or parts thereof occupied by PBO for paid activities may not exceed PLN 0.71 per square meter of area (Pahl, 2008: 285–298).

Churches and religious associations as the other PBO are also exempt from tax on civil law transactions if they perform civil law transactions solely in connection with unpaid public benefit activities within the meaning of the provisions on public benefit activities and volunteering, if they report or submit an application for an official act or an application for the issuance of a certificate or permits, from the obligation to pay court fees, except for matters relating to the business activities conducted by these organizations (Masternak, 2020: 138–167).

Another financial privilege granted to churches and religious associations as the other PBO is the possibility of purchasing, under special conditions, the right to use real estate owned by the State Treasury or a local government unit (Article 24 of the Act). These organizations may, among others: conclude use, rental or tenancy agreements for a fixed period longer than three years or for an indefinite

period, bypassing the tender procedure, as well as preferentially acquire ownership rights to these properties (Article 37(4a)(1a) and Article 59 of the Act of August 21, 1997, on real estate management). Annual fees for perpetual usufruct of land properties intended for charity and non-profit activities: care, culture, medicine, education, upbringing, research or research and development for churches and religious associations as the other PBO are set at a preferential tax rate of 0.3% of the price (Article 73 of Real Estate Management Act) (Journal of Laws U.2024.1145 i.e., of 2024/07/30).

PBO, including church organizations and other religious associations, was also granted the right to use public media (television and radio broadcasting) free of charge in order to provide information about its free public activities (Act of December 29, 1992 on radio and television broadcasting, Journal of Laws 2022.1722 of 2022.08.17.).

An important source of financing for the organization of churches and religious associations as public benefit organizations is the possibility for public administration bodies to entrust them with public tasks within the scope of their statutory activities. Such an order is made on the basis of a competition. The competition procedure may be omitted in the event of a natural disaster, a natural disaster, a technical failure or due to important social or important public interest, as well as in the case of civil protection and rescue tasks. Bypassing the competition procedure, it is also possible to commission the implementation of a public task of a local or regional nature. The performance of the assigned tasks is financed by public authorities (Księżki, 2024: 159–178).

## **2. FINANCING CHURCHES AND RELIGIOUS ASSOCIATIONS IN SELECTED COUNTRIES**

Initially, most countries were dominated by one religion, the organization of which was financially supported by the state authorities. Apart from the funds received from the state treasury, church structures and religious associations also had their own property generating a certain income, which was partially exempt from taxes (Blair, 2009: 405–437). Over the years, and the trends towards the separation of church and religious associations and state became more and more visible, projects began to appear to regulate the methods of financing churches and religious associations. Ultimately, different solutions were developed in individual countries, as evidenced by three contemporary models of relations between the state and the church and religious associations:

- a model of a religious state – one church has a privileged position (e.g. Islam, Anglicanism), no official separation of state and church and religious associations;

– an atheistic state model – complete separation between the state and the church and religious associations typical of centrally controlled (communist) states;

– a mixed (democratic) model – cooperation between the state and churches and religious associations guaranteeing freedom of religion and financial support for churches and religious associations depending on the adopted algorithm (Krukowski, 2009: 56).

In the model of a religious state, there is a high or even complete fusion of civil and church authorities. In extreme cases, clerics are the leaders of the state (e.g., the Ayatollah in Iran, the Pope in the Vatican) or civil leaders are also the leaders of the local church (e.g.; in the UK, the king is the head of the Church of England) and religious associations. An expression of the privileged position of the church in this model is its financing directly from the state budget.

In the atheistic state model, churches and religious associations are subject to repression by secular authorities and are not financed from public funds; on the contrary, finances are usually a means of repression in the form of additional tax burdens and other obligatory benefits. Countries with such a model are or were, among others: North Korea, Cuba, the USSR, People's Republic of China, Albania, Cambodia).

In the democratic model, there are churches and religious associations of various denominations, which coexist on the basis of equality in the territory of a secular state and use various means of financing in proportion to the number of believers. In the democratic model, individual countries use different solutions. In some countries, relations between the state and the churches and religious associations are of a friendly nature, based on bilateral concordat agreements (Germany, Austria, Italy, Spain, Poland). The state does not officially identify itself with any religion in the constitution, but respects their autonomy and guarantees freedom of religion and religious practices. It allows for education provided by churches and religious associations, and often also for religious classes to be conducted in public schools. Other highly secularized countries (including France) have introduced a sharp separation of the state from the churches and religious associations, which assume the status of private organizations and do not benefit from any privileges. Churches in this model do not receive financial support from the state sources.

The adopted model of relations between the state and the church and religious associations determines the methods of their financing. In many countries, one of the churches and religious associations is considered dominant and therefore benefits from state financing on a privileged basis, and often on an exclusive basis. In countries that use a democratic model of state-church relations, the most common is the participatory financing model, which involves the state's participation in financing certain activities undertaken by churches and religious



associations. The reasons for this solution should be sought both in the history related to the confiscation of church property<sup>2</sup> by secular authorities, and in the principle of subsidiarity, which means that today churches of various denominations participate in providing various services to society, help citizens in difficult life situations, and care for the preservation of heritage. cultural, enriching education and ensuring the development of social attitudes (Przeciszewski, 2023).

The methods of financing churches and religious associations in selected countries are presented in Table 1.

Table 1. The methods of financing churches and religious associations in selected countries

No.	Country	Financing methods
1.	Australia	State financing of church schools and some religious organizations.
2.	Austria	Church tax in the amount of 1.1% of the tax base for a selected church, land tax exemption, subsidies from the budget for religion in state schools and maintenance of schools of religious associations.
3.	Belgium	Budget subsidies for clerics salaries and housing, construction and maintenance of schools (60% of secondary school students attend catholic schools), financing of religion in state schools, tax exemption for church buildings.
4.	The Czech Republic	State subsidies for the expenses of the Catholic Church, compensation for seized church property (the total payment by 2043 will amount to approximately 100 billion crowns, at the same time, since 2016, salaries for clerics have been reduced by 5% annually until the church is completely withdrawn from financing), clerics pensions calculated on general principles as for other citizens.
5.	Denmark	Church tax for the faithful of the Church of Denmark in the amount of up to 1.5% of the tax base, 75% of this amount comes from the tax on the believers, 12% - from the state, and 13% from real estate income. Donations to this Church are tax-free. Financing religion in schools. Other churches and religious associations are registered as private associations.
6.	Finland	Tax deductions from its members for the Lutheran Church and the Orthodox Church in the amount of 1-2%. Exemptions from paying income tax for members of these churches. A tax for churches from private enterprises, depending on the religion of their owners. No subsidies or tax exemptions for the Catholic Church.
7.	France	Limited support, maintenance from the budget of churches built before 1905 and cathedrals and episcopal palaces, as well as insurance for priests, employment costs of chaplains and employees of religious schools. Maintenance of other temples by

<sup>2</sup> This phenomenon has its origins in the secularization of church properties carried out by European absolute monarchies since the 18th century.

		municipalities. State subsidies for religious associations in Alsace and Lorraine.
8.	Greece	Subsidies from the state budget for the Orthodox Church.
9.	Netherlands	Voluntary deduction from income tax in the amount of 1-3% of the tax base.
10.	Spain	0.7% of income tax (via tax offices) only for the Catholic Church. Financing from the budget of religion in schools (optional) and the activities of religious schools, including Catholic universities, financing of dioceses under the Concordat, exemption of the Catholic Church from real estate tax and administrative fees.
11.	Ireland	Limited state support, including: religious education in the amount of 90% of its costs, 80% of religious school buildings, financing of chaplains in the army and prisons, exemption from local taxes for the construction of churches.
12.	Japan	Financing by the believers and their associations, no financing by the state
13.	Luxembourg	Financing religious associations directly from the state budget. No church tax.
13.	Germany	Church tax, depending on the federal state, from 0.2 to 1.5% of the tax base. Officially leaving the Church exempts you from the obligation to pay tax. Churches pay the state 3–5% of the donated amount as a fee for this intermediation. Income from shares in enterprises, e.g., banks, publishing houses, compensation for expropriation, financing from the budget of Caritas charity activities, income tax exemptions, charitable donations.
14.	Poland	Church Fund, the law of the stole, financing of religious classes from the budget, donations
15.	Portugal	Limited support, income tax relief, no church tax.
16.	Slovakia	State subsidies, remuneration of clerics entirely financed by the state, no income tax on donations, donations and funds from the church's business activities, exemption from real estate tax on church buildings and cemeteries. Compulsory catechism in state schools financed from the budget. Religious schools financed entirely by the state.
17.	USA	Income tax exemptions and relief for churches and religious organizations, tax exemptions for parsonage residents. Financing from sacrifices and donations of believers and from own business activity, which is taxed.
18.	Switzerland	Church tax in the amount of up to 2.3% of the tax base.
19.	Sweden	Church tax from 0.62% to 1.79% of the basis for calculating personal income tax, mandatory contributions for church members collected by the Tax Office and determined locally in parishes, as well as funeral fees and, to a small extent, state subsidies for the maintenance of cultural property. Financing from capital gains from owned real estate and financial instruments. Other (minority) communities financed to a small extent from contributions and subsidies from the Office for Support of Religious Associations.

20.	Hungary	Possibility to transfer 1% of income tax to the church from the list of religious associations. Due to the low level of payments, subsidies from the state budget amount to 0.8% of the total income tax revenue from citizens. Financing from the religion budget in public schools and the salaries of clergy in small towns.
21.	Great Britain	Financing the Anglican Church from its assets and donations, financing religion classes in state schools and religious monuments from the state budget. The rest is financed from the donations of the believers. Other churches function as associations and are financed solely by donations and offerings.
22.	Italy	Transferring 0.8% of income tax optionally to: "The Catholic Church, one of the religious associations or for extraordinary actions taken by the state against world hunger, natural disasters, helping refugees and securing cultural monuments" – 40% of taxpayers indicate one of the beneficiaries. The state redistributes unallocated amounts proportionally among religious associations - on average 81% for the Catholic Church, 15% for the state, and the remaining 4% is divided among Adventists, Pentecostals, Lutherans and Jews. Financing from the budget of catholic schools, hospitals and chaplains. Donations of up to one thousand euros to one of the churches from the list of recognized religious associations may be deducted from taxable income. Churches, as non-profit organizations, pay half of the tax on their business activities and are exempt from VAT on purchased goods. Churches also have a 50% tax relief on income from schools, clinics, hotels and guesthouses. Optional catholic religion classes financed by the state. Exemption of church buildings from real estate tax.

Source: own study based on: Przewiczewski (2023); *The Czech Parliament approved the restitution...* (2012).

Churches and religious associations in all the countries listed in the table use public funds from the state budget to a greater or lesser extent. Modern, highly developed countries understand the need to subsidize historic religious buildings as cultural heritage. Most of them also allocate funds to finance church universities and religion classes in public schools. The state also partially or fully supports retirement benefits and salaries for clerics, and subsidizes church charitable activities.

Supporting churches and religious associations from public funds is part of the standard of state-church relations in most European countries. They use a participatory model by financing the needs of the churches and religious associations directly from the budget or through a church tax. Among presented 20 countries, three post-communist countries (Czech Republic, Poland, Slovakia) benefit from compensation for property taken over by the state as a result of the

change of political system after World War II. Eight countries use state subsidies, mainly to pay salaries and pensions for clergy, including three (France, Switzerland, Hungary) to a very limited extent. Also in eight countries, churches and religious associations are financed by church tax. Half of the countries mentioned above have a possibility of making income tax deductions. Most provide support from private funds, including contributions from the faithful, but only in Japan this is the sole source of financing for churches and religious associations. In many cases, state funds are also intended to finance historic religious buildings directly from grants or church taxes. Only in France does the state designate funds in the budget specifically for this purpose. Nine countries finance religious schools and religious classes in public schools. A detailed comparison of the above-described sources of financing for churches and religious associations, along with their directions, is presented in Table 2.

Table 2. Directions of allocating public funds for the activities of churches and religious associations in selected countries

No.	Country	Compensations	Subsidies from the budget (including salaries for clergy)	Church tax	Tax reliefs and exemptions	Schools	Own funds (non-public)
1.	Australia					+	
2.	Austria			+	+	+	
3.	Belgium		+		+	+	
4.	The Czech Republic	+	+				
5.	Denmark			+	+	+	
6.	Finland		+	+			
7.	France		+				
8.	Greece		+				
9.	Netherlands			+			
10.	Spain			+	+	+	
11.	Ireland				+	+	
12.	Japan						+

13.	Luxembourg		+				
13.	Germany			+	+		+
14.	Poland	+				+	+
15.	Portugal				+		
16.	Slovakia	+			+	+	
17.	USA				+		+
18.	Switzerland		+	+			
19.	Sweden			+			
20.	Hungary		+		+	+	

Source: own study based on Table 1.

The data presented in Table 2 shows that individual countries usually choose one of two models of financing churches and religious associations: a church tax or direct financing from the state budget, most often aimed at specific purposes (e.g., financing education, salaries and pensions for clergy). Both models support the use of a system of tax reliefs and exemptions. The advantage of using income tax is that the financing of churches and religious associations depends on the actual interest in worship. Churches and religious associations are financed in proportion to the number of believers, without financially burdening people not associated with any denomination. The disadvantage of this solution, however, is the widespread official withdrawal from churches and religious associations in order to avoid paying tax, despite the actual use of various church benefits (e.g., burial in a specific rite, charitable assistance available regardless of the declaration of religion). Such behavior limits the resources for the church and religious associations and makes it more difficult for it to perform social tasks. In turn, subsidizing churches and religious associations directly from the budget makes these funds independent of the subjective decisions of the faithful. However, it may contribute to uneconomical use of funds. The advantages and disadvantages of financing churches and religious associations from the church fund and church tax are presented in detail in Table 3.

Table 3. Comparison of the advantages and disadvantages of financing churches and religious associations from budget subsidies and church tax

Advantages	Disadvantages
<b>Subsidies from the state budget</b>	
<p>Restitution in nature - compensation for the seized property.</p> <p>No privileges given to any churches and religious associations in accordance with the principle of social justice.</p> <p>All religious associations with a regulated legal situation can use the funds, even those whose property has not been confiscated.</p>	<p>Failure to comply with statutory rules for the operation of the church fund.</p> <p>The amount of subsidy from the state budget determined arbitrarily and transferred to religious communities in accordance with the decision of its administrator (currently the Minister of Interior and Administration).</p> <p>The difficulty of calculating the actual amount of the fund is likely to be significantly underestimated.</p> <p>Budget funds allocated for purposes unrelated to the activities of churches and religious associations, including: to finance organizations not harmed by the takeover of property.</p> <p>Used as a tool of the state's religious policy and marginalization of the importance of churches and religious associations.</p> <p>The constantly increasing amount of subsidies is not related to the profitability of the church property taken over, but to the increase in the minimum wage and the increase in the pension contributions of clergy.</p> <p>Other goals include: conservation of religious monuments and social activities in accordance with government policy. In the past, these goals were not achieved.</p>
<b>Church tax</b>	
<p>Management of church money by democratically elected lay people – clergy can devote themselves to pastoral matters.</p> <p>Thanks to high tax revenues, there are no fees for sacramental services.</p> <p>Equitable distribution of money within dioceses and support for poorer dioceses by rich ones.</p> <p>Allocating tax funds to charity activities, e.g., helping the homeless.</p>	<p>Reduction in evangelical and missionary activities.</p> <p>Anonymity of donors – payers of tax registered by state officials.</p> <p>The faithful most often do not know what exactly their money is spent on.</p>

<p>Adaptation to the financial capabilities of each believer.</p> <p>Possibility of long-term planning of investments and expenses of churches and religious associations.</p>	
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Source: own study based on: *Advantages and disadvantages...*; Bernaciński (2024).

### **3. FINANCING OF CHURCHES AND RELIGIOUS ASSOCIATIONS IN POLAND. ORGANIZATION AND TASKS OF THE CHURCH FUND**

The Catholic religion dominates in Poland. The property rights of the Catholic Church were confirmed under the Concordat between the Holy See and the Republic of Poland. Pursuant to Art. 23 of the Concordat: "Church legal persons may, in accordance with the provisions of Polish law, acquire, possess, use and dispose of immovable and movable property and acquire and dispose of property rights" (Journal of Laws. 1998.51.318 of 1998.04.23). This principle confirms the norms contained in Art. 52 of the Act on the relationship between the State and the Catholic Church in the Republic of Poland. In relation to other churches and religious associations, the ability of church legal persons to have property rights has been confirmed in the laws specifying the State's attitude towards individual churches and religious associations (including the Evangelical-Augsburg Church, the Evangelical-Methodist Church, the Evangelical-Reformed Church, and the Adventist of Seventh Day, the Old Catholic, Mariavite Church, Pentecostal, Jewish religious communities, or Muslim Religious Association) (Krukowski, 2009).

The Republic of Poland, as a secular state, does not finance the activities of church and religious associations institutions related to worship. However, it may finance or co-finance other activities within the limits provided for by law. The grants awarded may concern tasks financed from the Church Fund and tasks similar to those carried out by governmental and non-governmental institutions (Krukowski, 2009).

In Poland, in addition to direct budget subsidies, churches and religious associations also use other means of funding from public and private funds. Public Catholic universities receive funding (subsidies) from the budget on the basis of the Concordat, among others, for charitable, welfare and scientific activities, subsidies for the conservation of monuments. As in other countries, religious associations are exempt from customs duties and taxes on real estate used for non-residential purposes, and for residential purposes, among others. If they are entered in the register of monuments, serve as boarding houses at schools and theological seminaries, civil law transactions, inheritances and donations, if their subject are things and rights not intended for business activity, income from non-

economic activity, as well as income from business activity intended for cult, educational, scientific and cultural purposes, for charity and care activities, catechetical points, conservation of monuments and for sacral and church investments (Act of 1989.05.17). Churches and religious associations as legal persons are exempt from taxation and from benefits paid to the commune fund and the city fund (*Announcement of the Marshal of the Sejm of the Republic of Poland from 2005*). Church radio stations with the status of public broadcasters are exempt from license fees (Zwoliński, 2011).

Working clerics earn income resulting from the functions they perform, e.g., from religious education, financed by the employer. Therefore, they pay income tax in the form of a lump sum determined annually by the competent head of the tax office. They are therefore exempt from the obligation to submit tax returns regarding their income. Churches' and religious associations' income also comes from economic activities (e.g., sales, lease of real estate, running publishing houses, bookstores, pilgrims' houses or shops) and material benefits from the faithful (including donations or bequests to church legal entities, e.g., foundations, donations during collections, fees for exercising acts of executive power or executing rescripts of the Holy See, e.g., for granting dispensation and the so-called *Iura stolae* (the law of the stole) – offerings on the occasion of certain sacraments or sacramentals, e.g., christening, marriage, funeral), sacrifices of the faithful, i.e., from the so-called tray and donations (the law of the stole). This income is not subject to the obligation to keep records and is not taxed. Churches and religious associations can also use European Union funds. Church legal persons have a right to establish foundations (Art. 26 of the Concordat), as well as to acquire, possess, use and dispose of immovable and movable property and to acquire and dispose of property rights (Art. 22 of the Concordat).

The Church Fund, which was established under the Act in 1950, plays a specific role in Poland (Art. 8, Act of 1950.03.20). It is a unique financial institution whose main goal is to provide material support to churches and other religious associations operating in Poland. Initially, it was a form of compensation for land properties and other properties taken over by the state, the so-called dead hand.<sup>3</sup> According to the original assumptions, an asset mass was to be created from the properties taken over by the state, the income from which would be divided among the churches and religious associations in proportion to the properties taken (Kuchta, 2003). This assumption has not been achieved because

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<sup>3</sup> Dead hand estates in the feudal era meant property belonging to a person who had no right to dispose of them in his will because legally everything he owned belonged to his lord. They concerned primarily church properties obtained from royal and knightly grants, covered by the obligation of inalienability and tax-free until 1789 (Olszewski, 2002: 87–88).



to date the number of taken over lands and facilities has not been cataloged and their value or the income generated by them has not been estimated.

The Church Fund does not have legal personality. Until 1989, it was supervised by an independent department of the Office for Religious Affairs. Currently, it functions within the structure of the Department of Religious Denominations and National and Ethnic Minorities of the Ministry of Internal Affairs and Administration (Resolution of 1991.11.7). Its organization and activities are regulated by the statute (Appendix to the Resolution of 1991.11.7).

The Fund operates for the benefit of all churches and religious associations registered in Poland with a regulated legal status in the Republic of Poland in accordance with the constitutional principle of equal rights (Art. 25 section 1 of the Constitution of the Republic of Poland). This means that its financing also covers churches and religious associations established after 1950, from which the state did not confiscate their property. In total, over 185 churches and religious associations currently benefit from the Church Fund (Ministry of Interior and Administration; MI&A).

Initially, the source of financing for the Church Fund was income from property taken over from churches and state subsidies. Since 1990, the main source of its financing has been the state budget. The value of expenditure from the state budget on the Church Fund in 2023 according to the project amounted to PLN 216 million. This represented only 0.03% of all budget expenditure (Figure 1).

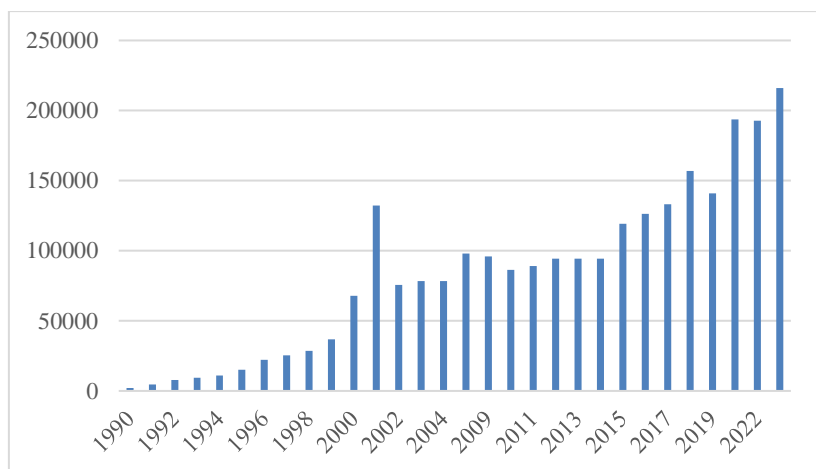


Figure 1. Value of expenditure from the state budget on the Church Fund in the years 1990–2023 in thousands zloty

Source: own study based on: *Revenues and expenses of the Church Fund (1990–2004)*; *Analysis of the implementation of the state budget and monetary policy assumptions for 2008–2023*; *Opinion on the budget act for 2012*: 5.

In the years 1995–1999, the share of expenditure on the Church Fund in total state budget expenditure was only 0.02%. It reached the highest level of 0.09% in 2001. Even then, it did not exceed 1%. Since 2002, it has ranged from 0.04 to 0.03%.

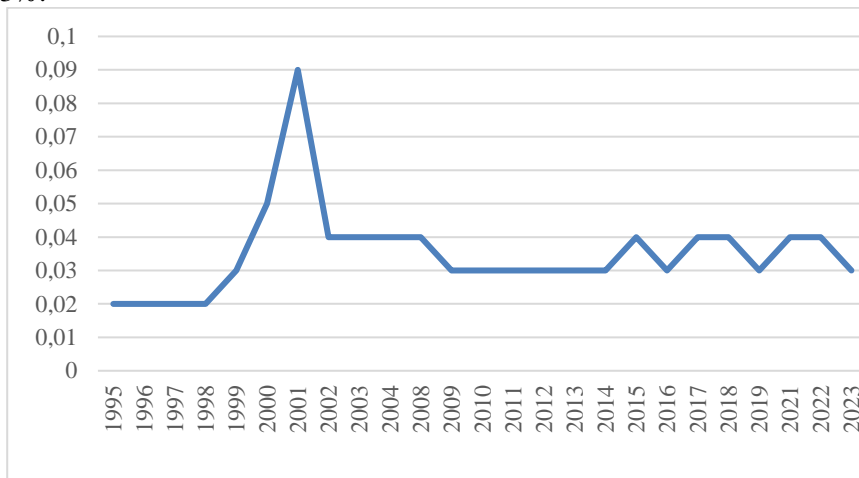


Figure 2. Share of expenditure on the Church Fund in total budget expenditure in the years 1995–2023

Source: own study based on: *Analysis of the implementation of the state budget for the years 1995–2023*; *Opinion on the budget act for 2012*: 5.

According to the 1950 Act, the Church Fund is intended for:

- maintenance, reconstruction and conservation of religious buildings;
- providing clerics with material and medical assistance;
- covering clerics with sickness insurance in justified cases;
- special pension provision for socially distinguished clerics;
- carrying out charity and care activities;
- supporting church educational and care activities, as well as initiatives related to combating social pathologies and cooperation in this area with government administration bodies;
- administrative expenses;
- other material (Act 1950.03.20).

Grants from the Church Fund are awarded at the request of legal entities of churches and other religious associations or on the own initiative of the Fund's Management Board. Initially, i.e., until the 1990s, most of the Fund's resources were intended for renovations of religious buildings and charitable and social activities. In 1990, as much as 92% of the Church Fund was allocated for this

purpose. Social and health insurance for clergy constituted only 8% of the Fund. In the following years, as a result of the gradual return of church property, the structure of expenditure from the Fund changed substantially, most of which was intended to finance social and health insurance for clergy. Since 1998, the share of funds for this purpose has already exceeded 80% of the total Fund, and since 2009 it has accounted for over 90%. The allocation of the Church Fund in the years 1990–2023 is presented in Figures 3 and 4<sup>4</sup>.

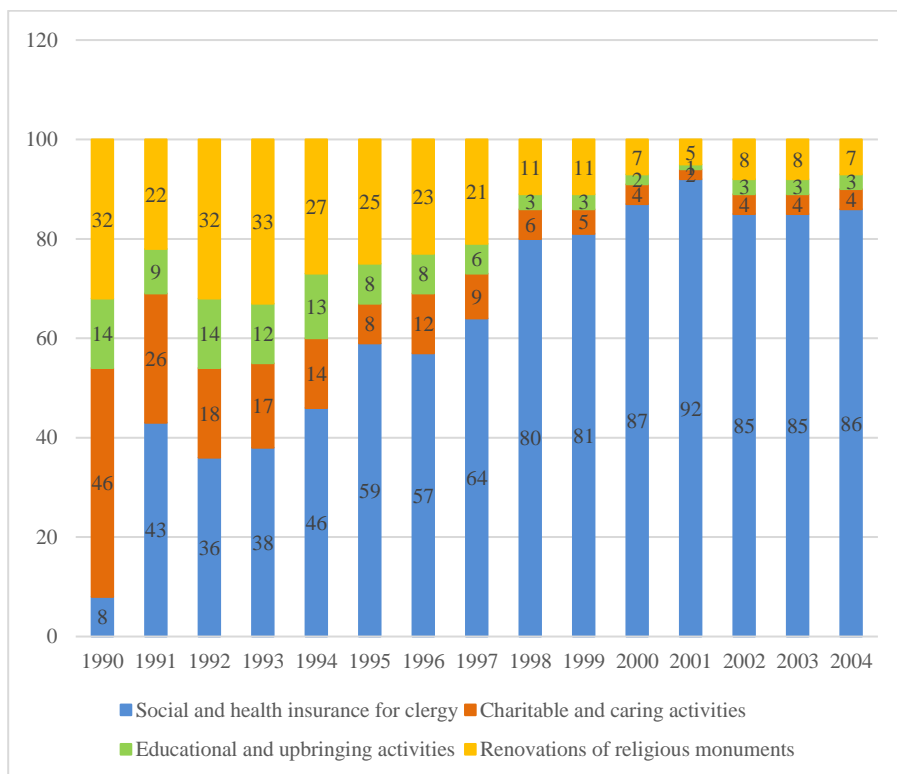


Figure 3. Structure of expenses of the Church Fund in the years 1990–2004

Source: own study based on: Grants awarded from the Church Fund in the years 1990–2004.

<sup>4</sup> Due to the change in the presentation of data in source reports, information on the structure of expenses of the Church Fund is presented in two separate charts.

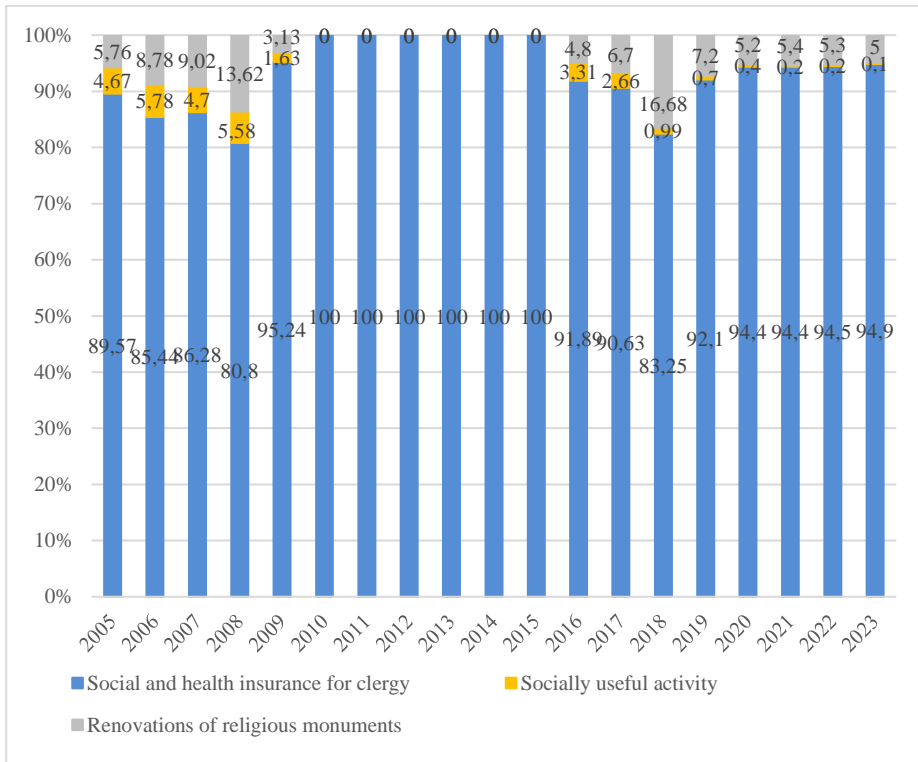


Figure 4. Structure of expenses of the Church Fund in the years 2005–2023

Source: own study based on: Grants awarded from the Church Fund in 2005–2023.

#### 4. CHURCH TAX AS A FORM OF FINANCING CHURCHES AND RELIGIOUS ASSOCIATIONS IN GERMANY AND AUSTRIA

Among the many solutions adopted for financing churches and religious associations, an interesting institution is the church tax. Such a solution has been adopted in Austria, Germany, Italy, Switzerland and Scandinavian countries, among others. However, the main countries that apply the church tax in a model form are Germany and Austria, so the institution of the church tax was presented on the basis of the solutions existing in the two German-speaking countries indicated.

As such, the church tax should be distinguished from other internal contributions or fees set and organized within churches and religious associations, independently of state law (Haering, 2012: 44). This is because it is a construct

that is virtually unknown in the Polish legal system or the Polish tax ordinance, and therefore requires a more extensive discussion.

The history of the church tax in Germany is linked to the events of 1830, when the church estates were secularized under the Reichdeputationshauptschluss Act of 1803. The estates obtained by the German state were intended to compensate the German princes for losses resulting from the war with Napoleon in 1801 (Marré, 2000: 33).

In the 19th century, a forced church tax on the faithful was introduced. It was subject to state control and could only be used if the church and religious associations' income from offerings was insufficient for their own operations.

On January 1, 1991, a unified financing system for churches and religious associations in Germany was established<sup>5</sup>. From then on, the legal basis for the church tax is Article 140 of the *Basic Law*, which incorporates Article 136 of the aforementioned Weimar Constitution. The churches and religious associations were left free to set the norms for the church tax and to choose the beneficiary institutions (Marré, 2000: 33–34).

The history of the current form of church tax in Austria, on the other hand, began its course in 1780. Until then, the financing of churches and religious associations was their own affair; they themselves had to raise funds for their activities. During the reign of Emperor Joseph II, many abbey monasteries and churches were abolished. The property mass thus acquired became the basis for the establishment of the so-called Religionsfonds – a form like a fund for churches and religious associations, which was subordinate to the state administration. From this fund clergy were paid and parishes were financed (Liebmann, 2008: 19).

After the annexation of Austria by the Nazi regime in 1939, the Religionsfonds was dissolved and replaced by a church tax law establishing a tax for the benefit of the Catholic, Augsburg-Evangelical and Old Catholic Churches. In 1945, following the end of World War II, the church tax thus formed was implemented into the Austrian legal system (Rechstüberleitungsgesetz vom 1. Mai 1945, Staatsgesetzblatt Nr. 6).

In civil law, a church tax is defined as an actual tax<sup>6</sup>, meaning a non-equivalent benefit paid by a citizen belonging to any church or religious association on the basis of affiliation regulated by the churches' and religious associations' own laws. Through the church tax, the state creates an opportunity for churches and religious associations, which are recognized in civil law as corporations, to provide institutional support for the enforcement of tax payments from the members. Unlike the regulations applied in Poland, where only the state

<sup>5</sup> This was in connection with the reunification of Germany in 1990.

<sup>6</sup> Financial law provides for various benefits, tributes, contributions, fees, contributions. The church tax is not one of the types of benefits but a tax *sensu stricto*, that is, according to the definition of tax.

or local government can impose a tax obligation on the taxpayer, the active subject of the church tax is not the state but churches and religious associations and their internal institutions (Haering, 2012: 45). The privilege of levying a church tax has a historical rationale; it is a compensation for property belonging to churches and religious associations that has been confiscated over the past decades.

The passive subject of the tax is, in principle, all those who, by virtue of the churches' and religious associations' own laws, become members of a religious community. The obligation to pay the tax begins on the first day of the month following admission to a church or religious association and is linked to the taxpayer's place of residence. The obligation to pay church tax ends upon death, through loss of residence or upon declaration of formal withdrawal from the church or religious association (CCO).

German law provides for three forms of church tax that differ in their subject matter and basis. The most common form of taxation is a tax calculated on the basis of income (*Kircheneinkommensteuer* and *Kirchenlohnsteuer*). The basis of the tax for churches and religious associations can also be property held (*Kirchenvermögensteuer*) or land (*Kirchengrundsteuer*). The object of church tax in Germany can also be *Kirchgeld* (church money). It is levied only in some German provinces and applies to spouses accounting jointly and belonging to different churches and religious associations (Haering, 2012: 48). There is only one form of church tax in Austria. Its subject is the taxable annual income of a member of a church or religious association.

The rate of church tax varies by country, churches and religious associations. In accordance with applicable law, only state-recognized churches and religious associations have the right to set the church tax rate. In Austria, the Catholic Church has adopted a rate of 1.1% on the main income, while the Evangelical Church has set the tax at 1%. In Germany, the case is somewhat more varied. Most provinces have adopted a rate of 9%, while in two provinces – Baden and Württemberg and Bavaria the amount of church tax is 8% on the main source of income (Haering, 2012: 48).

Collection of the tax in Germany is handled by state financial offices at the request of the church, except in Bavaria, where the church tax is retained by the employer and paid to the relevant financial office. The finance office transfers the money to the *Oberfinanzdirektionen*<sup>7</sup>, from where it goes to the diocese. At the diocesan level, the distribution of church tax funds is handled by the *Kirchensteuerrat*. In Austria, for the purpose of organizing, administering and collecting church tax, churches and religious associations establish *Kirchenbeitragsstellen* – a kind of church tax office<sup>8</sup> (CCO).

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<sup>7</sup> These are the highest financial offices of the Catholic Church in Germany.

<sup>8</sup> This is another element that distinguishes the church tax system in Austria and Germany. In Germany, the collection of church tax is handled by government offices.

Church tax is subject to concessions and exemptions. In Germany, church tax is not paid by worshippers whose income has not exceeded the tax-free amount. Pensioners and parents taking advantage of the child tax credit (*Kinderfreibetrag*) are also exempt. In Austria, people with no income of their own and specific social groups such as schoolchildren, the uniformed services and the civil service are generally exempt from church tax. A church tax reduction is applied to those who receive child support, unemployment benefits or compensatory allowance (CCO).

Funds from the church tax in Germany are largely<sup>9</sup> used to cover so-called "personnel costs". These include salaries for priests, charity workers and administrative staff employed in church offices. Churches in Germany run many social institutions. These are primarily hospitals, retirement homes, kindergartens, schools, health clinics, legal clinics and many other such institutions (CCO).

Proceeds from the church tax in Austria are used to cover expenses related to the operation of churches and religious associations. Missing needs are covered by any offerings made by the faithful, noting that of the countries with a church tax, Austria is the only one where churches and religious associations do not receive additional funding from the state. Any member of a particular church or religious association in Austria, thanks to the church tax, can freely and within the framework of church law benefit from services provided by church institutions, including receiving the sacraments, pastoral care in crisis situations, medical care in facilities run by churches and religious associations, and free visits to church buildings of historical and aesthetic value (Herndler, 2024).

## CONCLUSION

Churches and religious associations have played important functions in social and economic development for centuries. They have contributed undoubted values in the field of culture, art and education. Until now, they are not only a place of religious worship, but also a place of social integration and help for people in need of both material and spiritual support. Proof of this is the activity of churches in times of wars and various political regimes, running numerous educational institutions, hospitals and nursing homes. For this reason, the activities of churches and religious associations are activities for the common good, hence their facilities can be clearly classified as public benefit organizations and, as such, qualified as beneficiaries of support from public funds to a specific extent, just like stadiums, community centers or other institutions of this type.

The variety of activities undertaken by churches and religious associations shows that they should be financed from various sources depending on the purpose and distributed between the state and believers, especially since, as mentioned in

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<sup>9</sup> Churches and religious associations pay between 3 and 4 percent of church tax revenues to the state to help collect them.

the article, one of the problems in many countries is the payment of compensation for property seized from churches by the state. This difficult problem is related, on the one hand, to the difficulties of assessing the size and value of the property taken over by the state, as well as the potential income it could bring, and, on the other hand, to the state's servitude to citizens who use the services of churches and religious associations and their benefits, e.g., as monuments, often with the highest status.

The problem of determining the sources of financing and the structure of spending funds related to the financing of churches and religious associations raises many controversies. It is often perceived through the prism of burdening families with additional obligations. It therefore requires deep and thorough consideration and development of solutions consistent with the wishes and demands of various social groups and, on this basis, the development of a model consistent with legal regulations and the good of the state, as well as church institutions that are an inseparable element of its structure. It is not possible to clearly indicate the best solution, because each of the presented variants has advantages and disadvantages. Undoubtedly, a good proposal is to introduce various forms of income tax relief and exemptions with the possibility of allocating them to the activities of churches and religious associations. The introduction of a church tax imposed by the church in Poland and managed by it does not seem to be an appropriate solution, both due to its low effectiveness and the tax system different from that in Germany, which makes the implementation of this idea difficult.

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