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Activity of Regional Microfinance Institutions in Terms of Regional Development

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Przemysław Pluskota[1]

Abstract:

Purpose: *The aim of the article is to analyse the activity of two types of microfinance institutions in Poland, loan funds and loan guarantee funds and to indicate the relations between their activity and the condition of the regions.*
Design/Methodology/Approach: *To analyse funds activity we have employed a methodological approach of comparative analysis based on data from Eurostat, Local Data Bank, European Microfinanse Network, Polish Association of Loan Funds and Polish Association of Guarantee Funds. Data used in the study included 2012- 2018 years. In order to evaluate the impact of the funds on the region's development, the study applied Pearson's correlation analysis, linear regression analysis, and single-factor variance analysis.*
Findings: *The results indicate that the collective analysis of operations run by both types of institutions has shown numerous negative correlations, whereas the analysis of the impacts of the funds in the individual voivodeships has shown positive outcomes. It can therefore be stated that the activity of loan funds and guarantee funds on the regional scale displays positive effects and relationships, which differ depending on the region.*
Practical Implications: *Both funds and their owners have to search for new solutions and ways of development. This regards especially the guarantee funds which must compete with national guarantee programmes, which decreases their role from the point of view of commercial banks.*
Originality/Value: *The research study is an original analysis of the impact of regional financial institutions on regional development. It indicated a need for the institutions to change their strategies. In order to increase their impact on the region, the owners (which are mainly self-governmental bodies) should consider recapitalisation while retaining their regional character.*

Keywords: *Microfinance, financial instruments, regional financial institutions, loan funds, guarantee funds, regional development.*

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[1]*Institute of Spatial Management and Socio-Economic Geography, University of Szczecin, Poland, ORCID: 0000-0001-7951-065X, email: przemyslaw.pluskota@usz.edu.pl.*

1. Introduction

Microfinance is often considered as a financial service for the poor and low-income earners. They are credits (loans) granted without collateral on a group liability basis, the correct servicing of which is a condition for obtaining further, larger amounts (Gonzales and Rosenberg, 2006). The concept of microfinance is very often equated with microcredit and the two terms are in many cases used interchangeably. In fact, the scope of microfinance is much wider, as it does not only include microcredits – although they are the main service offered by every microfinance institution – but a broad range of financial services (credit, deposit, insurance, transfer services) aimed at the poor and micro-enterprises which enable them to earn or increase their income and thus, in many cases, improve the living conditions of entire families (Adamek, 2010; Christensen, Rosenberg, and Yayadeya, 2004; Brau and Woller, 2004; Christy and Bogan, 2011).

In addition to financial services, many microfinance institutions also offer their customers non-financial services referred to as "microfinance plus" (Lensink, Mersland, Thi Hong Vu, and Zamore, 2018). The term refers to a wide range of institutions offering the above services, including non-governmental organisations, credit unions, cooperative institutions, private commercial banks, non-banking financial institutions and banks partly owned by regional governments (Visconti, 2016). Over the recent years, the microfinance sector experienced some ups and downs; however, it always resurfaced, especially in difficult times, not only as a way to reduce poverty or social exclusion, but also as a tool to boost the economy. Many financially excluded people obtained access to formal financial services.

In the terminology of the European Union, microfinance is associated with M. Yunus and Grameen Bank and defined as a tool to offer the poor basic access to financial services, such as credits, savings, money orders and microinsurance. People living in poverty, like everyone else, need to have access to a wide range of financial services in order to do business, build up their assets or actively and efficiently manage risk (Microcredit networks and existing national legislation, 2010). Over the years, the activity of microfinance providers have evolved from a grant-based microcredit institutions to a model offering a wider range of services, with deposit facilities at the forefront. In addition to their microcredit activities, microfinance institutions in the EU offer business support services, training, financial education programmes or have business incubators within their structures (Bending, Unterberg, and Sarpong, 2012).

Developing the microfinance market and maintaining its stability has become a significant challenge in recent years and is the subject of many activities, debates and various initiatives. This has taken on particular importance in the context of mitigating the effects of the financial crisis. Various examples of the activities of microfinance institutions, their impact on the financial market, the condition of the region and the situation of individual business entities are evidence of their role and

importance. This is additionally confirmed by analyses and studies which indicate that the role and significance of microfinance in maintaining the stability of the financial system is growing (Alińska, 2017).

The aim of the article is to present the characteristics, role and rationale for microfinance and to analyse the activity of microfinance institutions, mainly regional ones, whose scope and area of activity are limited. Moreover, the article intends to examine the activity of two types of microfinance institutions in Poland and to indicate the relations between their activity and the condition of the regions. The article analyses the activity of loan and loan guarantee funds as specific regional microfinance institutions targeting their services at companies, as well as its regional diversification. These institutions operate all over Poland, however some are more active than the others. Although the scale of their activity in comparison with commercial banks is limited, a certain correlation may be observed between their number, the amount of a single support and the condition of regions reflected in GDP per capita, the level of investment, unemployment rate and enterprising behaviour.

Microfinance institutions play a complementary role to the financial system by extending credit to borrowers who were refused credit by banks due to high costs or lack of collateral. They are viewed as too risky to reach (Barr, 2004). In Europe as well as all over the world, microfinance is characterised by diversity – this pertains not only to microfinance products, but also to microfinance institutions. In Poland, similarly as in Europe, the microfinance sector is dominated by institutions focused on entrepreneurs. This article analyses the activity of two types of microfinance institutions, namely loan funds and guarantee funds. Both institutions play a leading role as non-bank regional entities that support micro-, small and medium enterprises. As their focus is on the regional scale of activity, it was decided to find out whether and to what extent they have an impact on the regional economies.

2. Literature Review

The concept of microfinance and its scope has evolved over the years. Initially, it was only associated with microcredit. The beneficial effects of savings were then recognised, both for borrowers and for microfinance institutions themselves. In time, it became apparent that the poor and micro-enterprises also needed other services, among which clearing, insurance, as well as counselling and advice began to dominate (Isern and Porteous, 2005). Continuous technological development allows the concept to evolve further. The growing availability of the Internet and the massive use of telephones and smartphones for microfinance services create new opportunities, increasing the scope of availability and the number of new products.

Furthermore, the technology offers new opportunities to research customers' needs and provide them with tailored products, all while maintaining cost efficiency. Nevertheless, the capabilities of modern technological solutions should not relegate

the social approach to business to a secondary role. Table 1 presents the definitions of microfinance by different authors. It should be noted, however, that despite some differences, in all approaches it is considered to be the provision of financial services, often of low value, to low-income individuals, families and small businesses. Their range varies from one region of the world to another, even in Europe. Moreover, microfinance serves an important social role, reducing social exclusion or enabling inclusion in local communities. By providing basic financial services, microfinance additionally contributes to a decline in financial exclusion. They therefore include formal and informal financial services for the poor (Brau and Woller, 2004).

Table 1. *Definitions of microfinance by different authors*

Authors	Definition of microfinance
A. Gonzales, R. Rosenberg	Financial services for the poor, low-income earners, associated with institutions providing small, unsecured loans, in many cases on a group liability basis.
R. P. Christensen, R. Rosenberg, V. Jayadeya	A movement aimed at providing many poor households with sustainable access to financial services, in addition to loans, including savings, insurance and clearing services.
B. Armendariz de Aghion J. Morduch	Activity of providing financial services to alleviate poverty and support social change.
M. S. Robinson	Providing financial services (loan, savings) of low value to the poor who want to run a small business or carry out simple and gainful work in rural and urban areas.
James C. Brau, Gary M. Woller	Microfinance generally refers to formal and informal financial services offered to the poor.
R. Mersland, R. Ø.Strøm	Small amount banking, aimed at low-income families and their business activities. The most common microfinance product is a low-value short-term loan, with weekly instalments and secured by a group guarantee.
L.A. Beisland, R. Mersland, T. Randøy	Provision of financial services such as savings, insurance and loan to micro-enterprises and low-income families
T. A. Tehulu	Small-scale financial services provided to poor households. An effective tool to combat poverty by providing financial services to those to whom they are unavailable and who are overlooked by commercial banks and other financial institutions.

Source: *Brau, Woller, 2004; Armendariz de Aghion, Morduch, 2009; Gonzales, Rosenberg , 2006; Christensen, Rosenberg, Jayadeya, 2004; Robinson, 2001; Mersland, Strom, 2014; Beisland L.A., Mersland R., Randøy, 2014; Tehulu, 2013.*

From an economic point of view, microfinance institutions should be able to raise capital to support the poorest, excluded from society, without major problems. If the capital market was perfectly flexible, the poorest should not suffer from its lack. This may be explained by the principle of the decreasing marginal revenue from capital, according to which each subsequent unit of capital involved in the production process is increasingly less profitable in terms of sales revenue. Thus, entrepreneurs with less capital are able to generate more revenue than those with more capital. This in turn means that the former are able to pay higher interest rates

than the latter due to the theoretical capability of generating more income. Therefore, small-scale producers should not complain about a lack of capital.

Research on the causes of insufficient capital inflows to the poorest countries was conducted, inter alia, by Montiel and College (2006), who analysed Lucas Paradox on the example of Africa. They divided the potential factors into two groups. The former includes the deficiency of projects with a satisfactory rate of return and the latter structural factors, particularly difficult to overcome in the short term, which involve primarily human capital and the quality of management in the public sector, the cause of which is the macroeconomic instability of economies. Improvement of the quality of management in public institutions was also recognised as the key to increasing capital inflows by Schularick and Steger (2008) who developed the Lucas model. They considered the shortcomings of the capital market and the quality of human capital as some of the causes.

Armendariz de Aghion and Morduch (2009) argue that money should flow from Wall Street to Harlem and on to the poor rural communities in the Appalachians, as well as from New Delhi to the poor villages in this country. In their opinion, as a result of the law of decreasing marginal revenues, a shoemaker working on the street or a woman selling flowers at a stall should be able to offer investors a much higher return on the invested capital than such global giants as General Motors, IBM or Tata Group. Why is this not the case? The reasons for this paradox may be multiple, such as lack of certain additional elements, risks, shortcomings of the market or transaction costs. The low level of education, including financial education, affecting the quality of human capital, which affects productivity, is also a missing element. Ashta categorised the main reasons for the deficiency of capital flow to the poor into three groups: transaction costs, information asymmetry and other factors (Ashta, 2007), whereas Armendariz de Aghion and Morduch (2009) associate them with credit market imperfections, i.e., barriers to capital inflow to those most in need. Moreover, the fact that capital is not invested in the poorest regions of the world is due to the much higher costs associated with the investments of the poor and unequal access to information (information asymmetry), which causes adverse selection, risk of abuse (moral hazard) and monitoring difficulties.

Microfinance was considered to be an innovation combining the technologies of commercial banks and informal financial institutions, which were not included in the lending transactions of the commercial banks (Messomo and Elle, 2019). The establishment and development of microfinance institutions (MFIs) contribute to bridging the financing gap, providing external financing opportunities for the poor and financially excluded (Alińska, 2019). MFIs differ from traditional banks in that they have to use other forms of reaching out to the poor and excluded, using methods and techniques that are non-standard for the banking sector (group loans and borrower monitoring, progressive lending conditional on the repayment of the previous loan, weekly instalments, mandatory deposits) (Visconti, 2016). The microfinancial revolution brought considerable benefits, and other countries as well

adopted the Yunus' idea and began to develop it quickly. Thousands of financial institutions offering similar services have emerged. However, the idea of the "banker to the poor" began to be more and more distorted and misinterpreted. The market has attracted new entrants, who have so far had little to do with financial services for the poor, and have taken advantage of the high demand by offering loans at usurious interest rates. Moreover, the microloans, instead of financing specific purposes (to start up a business, buy a machine, cattle, etc.), were used to finance consumption.

The level and scope of support through microcredits[2] and other microfinance products varies globally and in Europe, especially in comparison with the poorest countries. The aim of microfinance is, firstly, economic activation of the beneficiaries, enabling the establishment of income-generating activity and, secondly, the achievement of social objectives, promoting social integration, which additionally enables financial integration of individuals. Microfinance, despite the unfavourable events of 2010-2012, has brought and will continue to bring many benefits in both, the short and long term, including (Lorenzi, 2016):

- supporting citizens and enabling them to benefit from financial instruments used in a market economy;
- reduction of unemployment and provision of benefits in the local economy;
- increasing the attractiveness of investing by taking over part of the risk;
- assisting local financial intermediaries to increase the value of loans granted;
- integration of public support for social inclusion;
- reduction of public spending on social services by providing funding for disadvantaged groups.

MFIs can play an important role in developing countries (Quayes, 2015). The source literature provides numerous classifications of microfinance institutions according to different criteria (Fila, 2018). One of them is categorisation into formal (rural banks, cooperative societies), semi-formal (non-governmental organisations) and informal (money, lenders and shop keepers) microfinance institutions (Isola, Taiwo, Victor and Leke, 2014; Cull, Demirguc-Kunt, and Morduch, 2006). In Europe, microfinance institutions most often run their operations as NGOs, cooperative/credit unions and NBFIs, offering their products to natural persons who are excluded from access to basic financial products, but also to businesses, in particular to micro-enterprises. Still, most often the instruments are addressed at entrepreneurs, and then at physical persons (Pytkowska, 2021).

[2]*Microcredit in the EU is understood and defined in two ways. According to the first definition, it is a microcredit for entrepreneurs under EUR 25,000 to support the development of self-employment and micro-enterprises. According to the second definition, it is a microcredit for individuals under EUR 25,000 to support consumption needs such as education and health.*

The establishment and development of microfinance institutions in many countries resulted from the needs reported by social groups and business entities operating in areas with a lower level of socio-economic development, particularly in comparison with other regions. Usually three main reasons are given for the establishment of MFIs: social, financial and educational (Fila, 2018; Alińska, 2008). The definition of a microfinance institution, by virtue of its scope of activity, is fairly broad and includes the provision of financial services to low-income earners, short-term lending, non-profit activities and the accomplishment of a social mission, unconventional lending procedures and reaching out to specific social groups (Global Financial Development Report, 2018).

Over the last two decades, international microfinance institutions have increased the availability of their products worldwide. Many of them implemented business models in two ways (Pluskota, 2013):

- establishment of new entities based on new infrastructure, personnel, customers;
- establishment of microfinance institutions on the basis of existing resources, often based on the experience of the owners, who additionally perform monitoring and risk mitigation functions, shaping employment policies, activities, procedures.

Generalising all classifications and types of microfinance institutions both in the EU and in Poland, two models of microcredit activity may be identified, i.e., banking and non-banking (Kulińska-Sadłocha and Szambelańczyk, 2014). Under the banking model the entities are subject to banking supervision, while the non-banking model applies to institutions of different legal forms, which are not subject to banking supervision and are not banks.

All local (regional) financial institutions, including those that are not banks, such as loan funds and loan guarantee funds, should be involved in the implementation of the regional development mission. In particular, it should be aimed at creating a business model which significantly supports the economic development of the region and will be positively perceived by the local community due to the effective satisfaction of their needs and creation of development potential (Alińska, 2008). The regional market and financial system is the driver of many processes. In economic theory there are numerous different concepts and views on the impact of the financial system on economic development (Luintel, Khan, Leon-Gonzalez and Li, 2016). Many of these concepts confirm the beneficial effect (Durusu-Ciftci, Ispir, and Yetkiner, 2017; Law and Singh, 2014).

Others indicate a non-linear relationship between financial market development and economic growth. Law and Singh analysed this relationship using data from 87 countries covering the period from 1980 to 2010. In their opinion, there is a certain threshold to which this relationship is positive and becomes negative when it is

exceeded. This means that a larger financial sector is not always beneficial for the economy (Ruiz, 2018), as the financial crisis of 2008 demonstrated. The financial threshold varies and is lower for developing economies and higher for developed economies, while having a greater impact on the economy (Beck, Degryse, and Kneer, 2014). The impact on developed and developing economies also varies, depending on the time horizon. In particular, a positive relationship exists in the medium term (Bencivenga and Smith, 1991).

ther studies confirm that the development of financial intermediation in the economy determines the actual growth rate (Beck, Demirguc-Kunt, and Levine, 2010), however this impact varies depending on the degree of development of the economy, the financial system (Bilau and St-Pierre, 2017) and the target group (Gemzik-Salwach and Perz, 2018). All of the above studies are focused on macro scale analysis. The solution, which provides valuable conclusions, involves the analysis of the impact of the development of the regional financial sector on the regional economy. Such an attempt was made by Gemzik-Salwach (2018) who analysed the relationship between the development of the financial sector and regional economic growth. By examining the impact of the five indicators[3] on the dynamics of GDP per capita in all provinces [*voivodeships*] in Poland, she has proven the varied impact of the financial sector development level on the economic growth of individual regions. She observed a high positive correlation between the variables in two provinces, Zachodniopomorskie and Warmińsko-Mazurskie.

Studies on refundable support in Central and Eastern European countries in the post-crisis period support the view that European Investment Bank (EIB) financing supported employment, income and profitability of SMEs (The impact of international financial institutions on small and medium enterprises, 2019). The reasonableness of refundable support for the enterprise sector, in which financial intermediaries participate, through loan funds, was confirmed by Amamou, Gereben, and Wolski (2020). They recognised a positive impact of loans on employment, size of the company, level of investments and innovation capability. It is stronger in Central and Eastern and Southern Europe. In the western part of the continent it is also significant, however it is declining.

Moreover, the activity of loan guarantee funds has a positive impact on the activity of enterprises, in particular on the growth of assets, share of intangible assets, sales and employment (Brault and Signore, 2019), is beneficial also to banks (Liang,

[3]*Number of employees in the financial sector in the region/Number of employees in the region; 2. Salaries in the financial sector in the region/Salaries in the region; 3. Investment outlays and fixed assets of enterprises from the financial sector in the region/ Investment outlays and fixed assets of enterprises in the region; 4. Investment outlays in enterprises operating in the financial sector in the region/ Investment outlays in enterprises in the region; 5. Credit and loans as sources of financing investments in the region/ Sources of financing for total investments in the region.*

Huang, Liao, and Gao, 2017). Similar studies were carried out in Italy, Benelux and Nordic countries (Denmark, Finland, Norway, Sweden) between 2002 and 2016. The companies receiving the guarantee increased their assets, sales, employment and share of intangible assets compared to companies that did not receive such a guarantee (Bertoni, Brault, Colombo, Quas, and Signore, 2019). Petkovski and Kjosevski (2014), on the other hand, have not reached definitive conclusions on the impact of the financial sector on regional development. However, as they observed, it was influenced by the condition of financial institutions and the significant share of lost loans as a result of the financial crisis.

The funds set up by regional and local authorities are actively involved in many economic processes in the region, in particular by establishing cooperation with micro, small and medium-sized enterprises. In numerous cases, it is relational in nature, gaining a lasting advantage over global players. Financial intermediaries, both bank and non-bank, may eliminate the imperfections of the credit market, i.e. barriers to the inflow of capital to those most in need (Luintel, Khan, Leon-Gonzalez, and Li, 2016; Pluskota, 2013; Diriker, Landoni, and Benaglio, 2018).

3. Analysis of Microfinance Activity in Poland

To analyse funds acitivity we have employed a methodological approach of comparative analysis based on data from Eurostat, Local Data Bank, European Microfinanse Network, Polish Association of Loan Funds and Polish Association of Guarantee Funds. Data used in the study included 2012- 2018 years. The operation of both types of funds was analysed in aggregate and by individual voivodeship, as most of the institutions operate on a regional scale, with the area of activity no greater than the territory of the given voivodeship. In the case of supraregional institutions, both loans and guarantees were estimated in relation to the place of business of the supported enterprise. Due to that, it was possible to better reflect the impact on the businesses operations in the region. The study period covering the years 2012–2018 was also chosen in view of the statistic data availability. Before that period there were no data on funds operations available for individual voivodeships. In order to evaluate the impact of the funds on the regional development, the study used the data made available by Eurostat. To that end, the study applied Pearson's correlation analysis, linear regression analysis, and single-factor variance analysis, at a significance level of $\alpha < 0.05$.

The rise in popularity of microfinance as a result of demand for microcredit and other products worldwide has led to the creation of new institutions, both formal and non-formal. Many of them are not able to cover their operating costs and pay them through government or other donors' grants and subsidies on account of the social objectives and risks of the target groups. In such a situation, MFIs pursuing social objectives should receive support not only in terms of capital, but also in terms of content and infrastructure, as opposed to profit-oriented entities, for which social objectives are secondary.

The microfinance sector is fairly diverse in the European Union, the majority of MFIs operate as non-governmental organisations, followed by credit unions and cooperative banks, non-banking financial institutions, Microfinance banks and government institutions are the least numerous. 42 % of European MFIs were stablished more than 20 years ago. At the end of 2018, the examined institutions granted more than 1.1 million microloans worth EUR 3.5 billion, of which 42% to micro-enterprises and 58% to individuals and families. The microloan portfolio consisted primarily of microloans for business (53%) and personal microloans (47%) (Pytkowska, 2021). Due to the social mission, more than half of MFIs also provides non-financial support to prevent customer detriment, improve entrepreneurial skills and increase business efficiency (Hasan, Jackowicz, Kowalewski, and Kozłowski, 2017). Microfinance institutions in the EU aim primarily at financial inclusion and job creation, and their main target group are low-income earners, the unemployed, young people, immigrants and social workers. European microfinance institutions provide financial education, mainly to prevent over-indebtedness, trainings for entrepreneurs, including in business development, as well as business incubators.

On the basis of research and observations, including the European microfinance market, two categories of microfinance institutions, banking and non-banking, are identified in Poland. The former were created as a response to the needs of people in urban and rural areas and the latter to meet specific needs in society or economy. The former include profit-oriented commercial banks, which are not particularly responsive to the needs of micro-enterprises, the self-employed or the socially excluded, and cooperative banks, which operate on a smaller scale, closer to their customers, whose needs they recognise better. The latter have an advantage over global competitors, especially in the local market (Bartkowiak, Flejterski, and Pluskota, 2006). Non-banking institutions mainly include loan funds and loan guarantee funds oriented towards enterprises. They are not subject to financial supervision and therefore do not offer savings services. Due to the significant impact of the loan and guarantee funds on business activities, the regional community and local development, they will be characterised in the next section.

Loan funds in Poland began to emerge with the advent of the market economy, when the emerging private property began to have problems with financing its activities. The first institutions of this type had a very simple structure and one purpose – to offer loans to businesses and business start-ups which did not meet banking criteria. They originate from the activities of microfinance institutions whose main purpose is to support people in need of external financing.

The term loan fund is understood as an institution which is not a bank, whose activity is focused on providing access to external sources of capital by granting loans to companies and persons starting their business activity, without a documented credit history, acceptable collateral and not meeting the banks' requirements in this respect (Fundusze pożyczkowe w Polsce, 2019). Since the beginning of the 1990s, loan funds have been supporting the development of Polish

enterprises by creating a network of institutions providing external financing to micro, small and medium-sized enterprises (SMEs) available throughout the country.

At the end of 2018, 104 loan funds operated in Poland, which had less than EUR 700 million in loan capital (last year its value increased by 28.26%). In many cases, they are the only source of financing the entrepreneur's idea. In 2018, they granted 7,132 loans with a total value less than EUR 250 million. The average value of a single loan at that time was less than EUR 34,703. Although these institutions are active throughout the country, in certain provinces their network is more extensive than in others (Table 2).

Table 2. *Number and activity of loan funds by provinces at the end of 2018*

Province	**Number of Funds[4]**	**Number of loans**	**Value of loans (EUR)**	**Share in% of total loans**	**The average loan value (in EUR)**
Dolnośląskie	3	242	8,325,349	3.36	34,402
Kujawsko-pomorskie	7	465	19,023,388	7.69	40,910
Lubelskie	6	628	18,393,367	7.43	29,289
Lubuskie	2	198	5,931,568	2.40	29,957
Łódzkie	7	532	23,981,149	9.69	45,077
Małopolskie	10	489	13,571,446	5.48	27,753
Mazowieckie	9	458	13,312,191	5.38	29,066
Opolskie	3	351	16,967,054	6.86	48,339
Podkarpackie	6	620	13,395,859	5.41	21,606
Podlaskie	5	144	5,698,401	2.30	39,572
Pomorskie	7	803	23,194,949	9.37	28,885
Śląskie	9	352	15,102,667	6.10	42,905
Świętokrzyskie	7	390	14,796,877	5.98	37,941
Warmińsko-Mazurskie	11	454	13,821,272	5.58	30,443
Wielkopolskie	7	584	20,149,128	8.14	34,502
Zachodniopomorskie	5	422	21,837,363	8.82	51,747
Total	**104**	**7,132**	**247,502,028**	**100.00**	**34,703**

Source: *Own calculations based on Fundusze pożyczkowe w Polsce, 2019, the average NBP euro exchange rate as of 31 December 2018 – 4.30, was applied.*

The loan funds, fulfilling the role of institutions which bridge the financial gap, primarily finance the smallest enterprises, both in terms of quantity and value (Kraemer, Botsari, Gvetadze, Lang, and Torfs, 2019). This reveals the needs of micro-enterprises which coincide with those of other EU countries with respect to access to capital (Rupeika-Apoga, 2014; Brault and Signore, 2019). These institutions have gained a lasting position on local and regional financial markets and in the awareness of enterprises, which is confirmed by the purposes of loans, mainly growth-promoting initiatives. In 2018, loans were used to finance investments (68%), current needs of businesses (13%) and investments together with

[4]*The number of funds granting loans in a given province together with branches.*

working capital (19%) (Fundusze pożyczkowe w Polsce, 2019). In terms of value, investments financing accounted for nearly 70% of all loans, which proves the growth-promoting character of the loan funds. The loan funds market will be posed with challenges, transformations resulting from the need to face banking competition, centralisation of activities and lending programmes by government institutions and consolidation due to capital shortages. Less active institutions face difficult times, which may lead to a decrease in their number and fewer opportunities to support the development of the SME sector. This problem may be solved, inter alia, by the conclusion of consortium agreements between funds and joint financing of enterprises' activities.

Loan guarantee funds are institutions providing companies with the required collateral to enable them to obtain external financing in the form of bank loans or loans to companies. The economic and financial impact of their activities is based on two assumptions. Firstly, these funds may provide the companies with or increase their access to bank financing. Secondly, they enable more risky yet reliable companies to obtain better financing conditions, e.g., higher amount of financing, extended time limits, lower costs. The provided loan guarantees (sureties) replaced the collateral, which minimises moral hazard by reduced rationing of the loan due to information asymmetry. This is particularly relevant in periods of increased risk and/or risk aversion (Brault, Signore, 2019). Guarantee institutions are an integral part of local financial markets, not only in Poland but also in Europe. The example includes an organisation integrating such entities from the Old Continent – AECM (European Association of Guarantee Institutions), associating guarantee institutions from 28 EU Member States as well as from Bosnia and Herzegovina, Serbia, Russia or Turkey. At the end of 2018, there were 40 loan guarantee funds operating in Poland, one less than in the previous year (Table 3). The institutions held a total capital of less than a quarter of 1 million euro and active guarantees of 350 million euro. The year 2018 was another year in which the value of guarantees increased by 7% (Gajewski, Kubajek, and Szczucki, 2019).

Table 3. *Regional characteristics of loan guarantee funds in 2018*

Province	**Number of funds**	**Guarantee capital (EUR)**	**Active guarantees (EUR)**	**Guarantees granted in 2018**		**Average value of the guarantee (EUR)**
				Quantity	Value (EUR)	
Dolnośląskie	5	8,441,860.46	12,418,604.7	572	17,115,848.8	29,923
Kujawsko-pomorskie	4	16,930,232.56	33,046,511.6	1,114	19,933,997.7	17,894
Lubelskie	3	18,255,813.95	14,651,162.8	769	14,268,120.9	18,554
Lubuskie	1	10,930,232.56	9,627,906.98	227	5,386,627.91	23,730
Małopolskie	3	16,534,883.72	25,720,930.2	138	8,656,088.37	62,725
Mazowieckie	1	11,279,069.77	15,116,279.1	338	13,096,965.1	38,748
Opolskie	1	2,720,930.23	3,302,325.58	135	2,815,116.28	20,853
Podkarpackie	2	7,674,418.61	2,651,162.79	78	1,013,623.26	12,995
Podlaskie	2	18,744,186.05	10,348,837.2	164	7,165,562.79	43,692
Pomorskie	2	10,720,930,23	29,372,093.0	608	22,479,118.6	36,972
Śląskie	2	12,162,790.70	16,232,558.1	1,255	28,436,276.7	22,658
Świętokrzyskie	2	8,976,744.19	4,906,976.74	70	2,842,325.58	40,605

Warmińsko-Mazurskie	4	19,325,581.40	20,348,837.2	563	13,014,023.3	23,115
Wielkopolskie	4	26,302,325.58	81,744,186.0	2,933	81,653,614.0	27,840
Zachodniopomorskie	4	40,906,976.74	70,093,023.3	614	10,593,432.6	17,253
Total	**40**	**229,906,976.70**	**349,558,140**	**9,596**	**249,186,047.0**	**29,170**

Source: *Own work based on: Gajewski, Kubajek, Szczucki, 2019, the average NBP euro exchange rate as of 31 December 2018 – 4.30 was used for calculations.*

Guarantees of funds are supplementary to bank credit products, supporting entrepreneurs in their relations with the bank in terms of securing transactions. For many years the number of guarantees has been increasing year on year, however this is no longer the case. For the last three years, both the number and value of guarantees for banks has been decreasing (Table 4). This is due to competition from central programmes operated by the state-owned Bank Gospodarstwa Krajowego (BGK), such as the De Minimis Guarantee Line, or under the Intelligent Development Operational Programme (OP IR) and programmes distributed at European level, e.g., COSME[5] (Programme for the Competitiveness of Enterprises and Small and Medium-Sized Enterprises), Horyzont 2020 or EaSI[6] (EU Programme for Employment and Social Innovation).

Table 4. *Guarantees granted depending on the financing institution in 2015-2018*

Purpose	Number of guarantees				Value of guarantees (EUR)				Average value of the guarantee (EUR)			
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
Total	6,336	7,453	8,186	9 596	213,961,460	219,913,841	231,563,831.8	249,2	33,768.76	29,507.13	28,279.60	25,98
including for:												
Banks	3,939	3,548	3,033	2 682	176,301,649	164,975,913	151,241,430.4	133,9	44,747.08	46,507.32	49,842.51	49,93
Loan funds	766	634	486	510	12,784,880.5	10,793,033	7,179,914.77	12,33	16,699.09	17,023.35	14,915.69	24,02
Other entities	1,631	3,271	4,667	6 404	24,851,769.5	44,144,895	73,188,808.6	103,02	15,239.95	13,502.87	15,680.01	16,09

Source: *Own work based on: Gajewski, Kubajek, Szczucki, 2016, 2017, 2019; the average NBP euro exchange rate as of 31.12.2015 – 4.2615, 31.12.2016 – 4.424; 31.12.2017 – 4.1709; 31.12.2018 – 4.3 were used for calculations.*

Loan guarantee funds, forced to pursue new avenues of active business, began to guarantee for liabilities to entities other than banks and loan funds. This group includes bid bonds which constitute 50% of the transactions. Sureties for leasing transactions and performance bonds are much less common in transactions; however they demonstrate the diversification of activities and the intention to find new solutions. The clear prevalence of bid bonds in the guarantee portfolios of the funds on the one hand indicates the flexibility of these institutions, however, on the other hand raises doubts about their initial objectives. It reflects a reduced role of the funds

[5]*Framework Programme for the Competitiveness of Enterprises and Small and Medium-Sized Enterprises 2014-2020.*

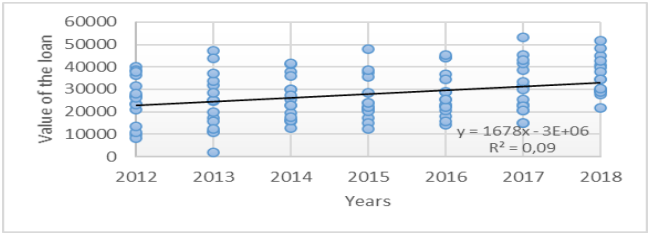
[6]*Programme for Employment and Social Innovation 2014-2020.*

as entities providing collateral for debt transactions, complementing credit products. The competition from government programmes and little interest of commercial banks to continue cooperation with many regional agents render it necessary to pursue new avenues, in particular through smaller, local and regional funds. One option is to diversify activities, mainly in terms of products and close cooperation with loan funds and cooperative banks.

4. Results

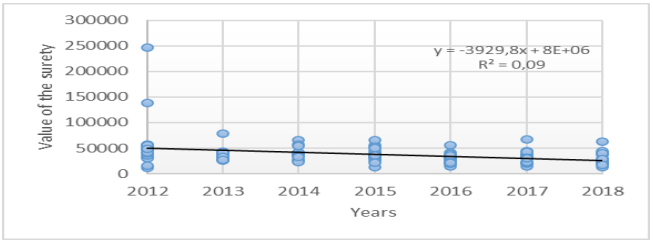
As a result of the analysis of the regional microfinance institutions' activity in Poland, mainly loan funds and loan guarantee funds, several conclusions may be drawn. In terms of loan funds, an above-average activity in several regions, both in terms of quantity and value, may be observed. The average value of both the loan and the guarantee varies considerably. Their value depends on the number and size of funds operating in a given region and the value of their capital. The average loan value rose over time, F (1,110) = 11.92, p< 0.01 (Figure 1). Based on the regression coefficient it was found that the mean value of the contracted loans was moderately correlated with the time elapsed (*Beta* = 0.31). The tested regression model explains 9% of the dependent variable variance. The average guarantee value, in turn, decreased over time, F (1,110) = 11.51, p< 0.01 (Figure 2). Based on the regression coefficient it can be stated that the average value is moderately negatively correlated with the time elapsed (*Beta* = -0.308), whereas the tested regression model explains 9% of the dependent variable variance.

Figure 1. *Average loan value in years*



Source: *Own study.*

Figure 2. *Average surety in years*



Source: *Own study.*

In the case of the loan funds, the increase in loans values is a proof of ever increasing needs shown by enterprises on the one hand; on the other hand it confirms the capability of the regional institutions to meet the needs, which play their role in supporting local enterprises. In turn, the average guarantee value which has been decreasing year by year reflects the competition from the national guarantee programmes in which commercial banks participate, thus significantly limiting the cooperation with regional guarantors. This trend is visible in the ever decreasing number of guarantees for banks. Therefore, the guarantee funds were forced to search for new areas of activity, such as guarantees of bid bonds, leases and other liabilities contracted by entrepreneurs. Due to the national programmes, over the four-year period (2015–2018) the number of bank loan guarantees dropped by over 30%, also resulting in a decrease in the average single guarantee value.

Next, a number of Pearson correlations were performed to find out whether there were significant correlations in the studied period between the variables connected with loan funds and guarantee funds and macroeconomic variables in the study, without dividing them into data from any particular voivodeships (Table 5). The analysis did not prove an unambiguous positive correlation between the studied funds and the data reflecting the economic development. The reason for that may be the scale of activity of all loan funds and guarantee funds in comparison with the scale of lending activity of commercial banks in Poland. The value of loans granted by all the funds as at the end of 2018 accounted for nearly 0.6% of commercial bank lending to SMEs.

Table 5. *Correlations between the effects of loan funds and guarantee funds activity, and macroeconomic variables*

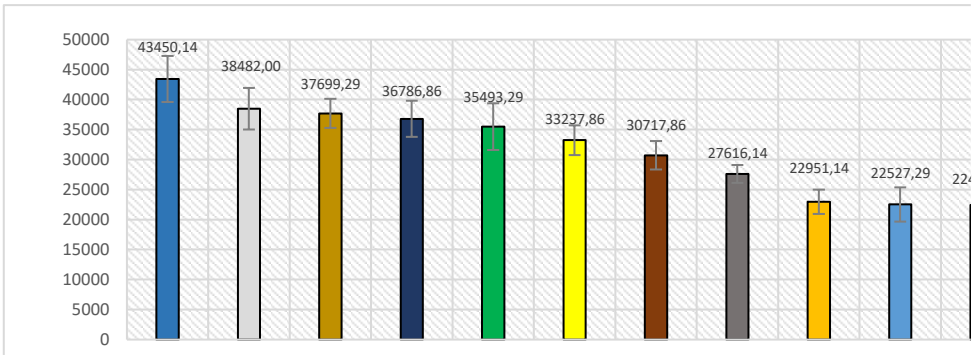
		GDP per capita - PPS as % of UE 27 average	GDP per capita (EUR)	Employment rate (%)	Employment rate 15 yrs and over	Investment outlays in enterprises per inhabitant (EUR)	Total investment outlays (k EUR)	Number of enterprises per 10,000 population	Entities newly entered in REGON register per 10,000 population
average value of guarantee	Pearson correlation coefficient	0.07	0.16	**0.308****	**-0.361****	0.02	-0.15	-0.04	**-0.213***
	significance	0.49	0.08	< 0.001	< 0.001	0.80	0.11	0.68	0.02
average value of guarantee	Pearson correlation coefficient	-0.06	-0.14	-0.12	0.17	-0.14	-0.03	-0.03	-0.01
	significance	0.52	0.15	0.22	0.07	0.13	0.78	0.77	0.88
	significance	0.01	< 0.001	0.02	0.00	0.01	0.30	0.08	0.13

Source: *Own study.*

Despite the lack of relationship between the analysed institutions and the regions development, in order to find out whether the measurements in the voivodeships and in the individual years showed any differences, a single-factor variance analysis was performed where the dependent variables were macroeconomic factors, and the independent variables – the place and year of measurement.

The performed analysis indicated the significance of the average loan value as the dependent variable (Figure 3). It turned out that in the Opolskie voivodeship the funds granted on average higher loans than in the other voivodeships, apart from Łódzkie, Podlaskie, Śląskie, Świętokrzyskie, Wielkopolskie and Zachodniopomorskie (Bonferroni test, $p<0.05$). In the Łódzkie voivodeship, the contracted loans were on average higher than in Dolnośląskie, Kujawsko-pomorskie, Lubuskie, Lubelskie, Małopolskie, Mazowieckie, Opolskie, Podkarpackie and Pomorskie (Bonferroni test, $p<0.05$). In the Wielkopolskie voivodeship, the contracted loans were on average higher than in Dolnośląskie, Kujawsko-pomorskie, Lubuskie, Lubelskie, Małopolskie, Mazowieckie, Podkarpackie and Pomorskie (Bonferroni test, $p<0.05$). In the Świętokrzyskie voivodeship, the contracted loans were on average higher than in Dolnośląskie, Lubuskie, Lubelskie, Małopolskie, Mazowieckie, Podkarpackie and Pomorskie (Bonferroni test, $p<0.05$). In the Podlaskie voivodeship, the contracted loans were on average higher than in Lubelskie, Małopolskie, Mazowieckie, Podkarpackie and Pomorskie (Bonferroni test, $p<0.05$). In the Zachodniopomorskie voivodeship, the contracted loans were on average higher than in Lubelskie and Pomorskie (Bonferroni test, $p<0.05$). In turn, the voivodeships: Śląskie, Warmińsko-mazurskie, Kujawsko-pomorskie, Dolnośląskie, Lubuskie, Małopolskie, Mazowieckie, Podkarpackie, Pomorskie and Lubelskie did not differ statistically among themselves in terms of average values of contracted loan,

Figure 3. *Average loan value depending on the location*[7]



Source: *Own study.*

In order to examine the local impacts of loan funds and guarantee funds on the macroeconomic indicators, such as: GDP per capita as % of the EU average, GDP per capita (EUR), employment rate, unemployment rate, investment outlays in enterprises per inhabitant of the given voivodeship, total investment outlays, number of enterprises per 10,000 population of the given voivodeship, and number of entities entered in REGON register in the given region, Pearson's correlation analyses were performed for these indicators, with the independent data connected

[7] *Error bars represent standard error of measurement.*

with the functioning of the said Funds. Next, linear regression models were examined for the obtained significant correlations. The correlation results were presented in the form of a heatmap. The analysis has shown 27 significant correlations for the 'average loan value' variable and the studied macroeconomic variables (Figure 4), and 31 significant correlations for the variable "average guarantee value" and the examined macroeconomic variables (Figure 5).

***Figure 4**. Heatmap presenting Pearson correlation coefficients for the 'average loan value' variable and the macroeconomic variables*

	GDP per capita - PPS as % of the UE average	GDP per capita (€)	Employment rate (%)	Unemployment rate 15 years and over	Investment outlays in enterprises per inhabitant (€)	Total investment outlays (k (€)	Number of enterprises per 10,000 population	Entities newly entered in REGON register per 10,000 population
Dolnośląskie	0,54	0,59	0,58	-0,59	0,57	0,45	0,44	-0,35
Kujawsko-Pomorskie	0,49	0,64	0,65	-0,59	0,10	0,04	0,56	0,36
Lubelskie	0,38	**0,948****	**0,991****	**-0,938****	0,59	0,49	**0,972****	0,73
Lubuskie	0,70	**0,765***	**0,792***	**-0,855***	0,56	0,62	0,63	0,17
Łódzkie	0,28	0,44	0,66	-0,63	-0,23	0,10	0,55	0,12
Małopolskie	**0,874***	**0,912****	**0,978****	**-0,895****	**0,755***	0,42	**0,944****	0,67
Mazowieckie	**0,817***	**0,852***	**0,942****	**-0,873***	**0,854***	**0,847***	**0,854***	**0,765***
Opolskie	-0,10	0,29	0,47	-0,38	-0,19	0,10	0,45	0,47
Podkarpackie	-0,52	-0,50	-0,37	0,35	0,18	0,05	-0,54	0,10
Podlaskie	0,12	0,44	0,58	-0,63	0,23	0,31	0,41	-0,14
Pomorskie	0,54	0,60	0,58	-0,59	0,14	0,07	0,61	**0,878****
Śląskie	0,54	0,69	**0,783***	-0,73	0,68	**0,764***	0,65	0,02
Świętokrzyskie	-0,12	0,06	-0,03	-0,08	0,41	0,30	0,22	0,25
Warmińsko-Mazurskie	-0,34	0,10	0,22	-0,23	0,13	0,06	0,20	0,47
Wielkopolskie	-0,28	-0,33	-0,48	0,46	-0,02	-0,22	-0,38	0,02
Zachodniopomorskie	0,51	0,74	**0,852***	**-0,805***	0,14	-0,02	**0,790***	0,58

***Note:** Significant correlations are in bold type. * - correlation significance level p < 0.05, ** - correlation significance level p < 0.01*

Significant negative correlations | *Significant positive correlations*

***Source:** Own study.*

Based on the estimated Pearson correlation coefficient it may be stated that the 'average loan value'[8]:

- showed a very strong positive correlation with 'GDP per capita as % of the EU average' in the Małopolskie and Mazowieckie voivodeships ('average loan value' explained 7% of the variance of the 'GDP per capita as % of the EU average' dependent variable in Małopolskie and 6% in Mazowieckie);
- showed a very strong positive correlation with 'GDP per capita (EUR)' in the Lubelskie, Lubuskie, Małopolskie and Mazowieckie voivodeships ('average loan value' explained 8% of the variance of the 'GDP per capita (EUR)'

[8]*All the models were statistically significant at the level p <0.05.*

dependent variable in Lubelskie, 5% in Lubuskie, 8% in Małopolskie, and 7% in Mazowieckie);

- showed a very strong positive correlation with 'employment rate' in the Lubelskie, Lubuskie, Małopolskie, Mazowieckie, Śląskie and Zachodniopomorskie voivodeships ('average loan value' explained 9% variance of 'employment rate' dependent variable in Lubelskie, 6% in Lubuskie, 8% in Małopolskie, 8% in Mazowieckie, 6% in Śląskie and 7% in Zachodniopomorskie);
- showed a very strong negative correlation with 'unemployment rate' in the Lubelskie, Lubuskie, Małopolskie, Mazowieckie and Zachodniopomorskie voivodeships ('average loan value' explained 8% of the variance of the 'unemployment rate' dependent variable in Lubelskie, 7% in Lubuskie, 8% in Małopolskie, 7% in Mazowieckie and 6% in Zachodniopomorskie);
- showed a very strong positive correlation with 'investment outlays per inhabitant (EUR)' in the Małopolskie and Mazowieckie voivodeships ('average loan value' explained 5% of the variance of 'investment outlays per inhabitant (EUR)' dependent variable in Małopolskie and 7% in Mazowieckie);
- showed a very strong positive correlation with 'total investment outlays' in the Małopolskie and Śląskie voivodeships ('average loan value' explained 7% of the variance of the 'total investment outlays' dependent variable in Mazowieckie and 5% in Śląskie);
- showed a very strong positive correlation with 'number of enterprises per 10,000 population' in the Lubelskie, Małopolskie, Mazowieckie and Zachodniopomorskie voivodeships ('average loan value' explained 9% of the variance of the 'number of enterprises per 10,000 population' dependent variable in Lubelskie, 8% in Małopolskie, 7% in Mazowieckie and 6% in Zachodniopomorskie);
- showed a very strong positive correlation with 'entities newly entered in REGON register' in the Mazowieckie and Pomorskie voivodeships ('average loan value' explained 5% of the variance of the 'entities newly entered in REGON register' dependent variable in Mazowieckie and 7% in Pomorskie).

The presented results do not unambiguously confirm a positive impact of the loan funds on the regions development. Also, it cannot be proved that their activity has no effect – just to the contrary. Loan funds are diverse, these are local and regional institutions, although there may be ones which grant loans in several regions or even across the country. This certainly is reflected in their impact on the regional economies. In the case of loan guarantee funds, a significantly smaller impact on regional development can be noticed. Their activity is also diverse, both in terms of territory and product offer. These institutions have at their disposal various levels of capital, which affect their guarantee capabilities. A small number of positive correlations may also be due to changes in the business running policy and searching for new solutions, as a result of national guarantee programmes operation.

Figure 5. *Heatmap presenting Pearson correlation coefficients for the variable 'average guarantee value' and the studied macroeconomic variables*

	GDP per capita - PPS as % of the UE 27 average	GDP per capita (€)	Employment rate (%)	Unemployment rate 15 years and over	Investment outlays in enterprises per inhabitant (€)	Total investment outlays (k €)	Number of enterprises per 10,000 population	Entities newly entered in REGON register per 10,000 population
Dolnośląskie	-0,06	-0,61	-0,72	0,68	-0,63	-0,66	**-0,810***	-0,31
Kujawsko-Pomorskie	-0,71	**-0,848***	**-0,811***	**0,813***	-0,32	-0,55	**-0,924****	0,16
Lubelskie	-0,39	**-0,878****	**-0,839***	**0,835***	-0,15	-0,09	**-0,916****	-0,32
Lubuskie	-0,72	**-0,814***	**-0,805***	**0,767***	-0,70	-0,72	**-0,850***	0,35
Łódzkie	0,73	0,72	**0,793***	-0,73	0,50	0,60	**0,812***	-0,12
Małopolskie	**0,840***	**0,813***	**0,757***	**-0,769***	**0,874***	0,63	**0,790***	0,52
Mazowieckie	-0,10	-0,31	-0,30	0,30	-0,35	-0,35	-0,50	-0,61
Opolskie	-0,28	-0,54	-0,49	0,55	-0,60	-0,45	**-0,813***	0,01
Podkarpackie	-0,68	**-0,803***	**-0,948****	**0,935****	**-0,783***	**-0,757***	**-0,803***	-0,62
Podlaskie	-0,50	-0,40	-0,31	0,27	-0,15	0,11	-0,51	0,65
Pomorskie	-0,14	-0,03	-0,05	0,07	0,55	0,59	0,06	-0,30
Śląskie	-0,20	-0,69	-0,72	0,70	-0,59	-0,47	**-0,868***	0,55
Świętokrzyskie	0,09	0,12	0,17	-0,17	0,03	-0,02	0,15	0,58
Warmińsko-Mazurskie	**-0,890****	-0,74	-0,69	0,56	-0,11	-0,38	**-0,790***	0,37
Wielkopolskie	0,48	0,29	0,15	-0,13	0,35	0,22	0,28	-0,19
Zachodniopomorskie	-0,20	-0,50	-0,61	0,56	0,40	0,39	-0,67	0,11

Note: *Significant correlations are in bold type. * - correlation significance level p < 0.05, ** - correlation significance level p < 0.01*

Significant negative correlations *Significant positive correlations*

Source: *Own study.*

The analysis of the impact of these institutions consisted in calculation of Pearson correlation coefficient, which made it possible to formulate conclusions regarding the impact of 'average guarantee value', as follows[9]:

- a very strong positive correlation was found for 'GDP per capita as % of the EU average' in the Małopolskie voivodeship and a very strong negative correlation in Warmińsko-mazurskie ('average guarantee value' explained 7% of the variance of the 'GDP per capita as % of the EU average' dependent variable in Małopolskie and 7% in Warmińsko-mazurskie);
- a very strong negative correlation was found for 'GDP per capita (EUR)' in Kujawsko-pomorskie, Lubelskie, Lubuskie and Podkarpackie voivodeships, and a very strong positive correlation in Małopolskie ('average guarantee value' explained 7% of the variance of the 'GDP per capita (EUR)' dependent variable in Kujawsko-pomorskie, 7% in Lubelskie, 6% in Lubuskie, 6% in Podkarpackie and 6% in Małopolskie);
- a very strong negative correlation was found for 'employment rate' in Kujawsko-pomorskie, Lubelskie, Lubuskie and Podkarpackie voivodeships, and

[9] *All the models were statistically significant at the level p <0.05.*

a very strong positive correlation in Małopolskie and Łódzkie ('average guarantee value' explained 6% of the variance of the 'employment rate' dependent variable in Kujawsko-pomorskie, 7% in Lubelskie, 6% in Lubuskie, 8% in Podkarpackie and 5% in Małopolskie and 6% in Łódzkie);

- a very strong negative correlation was found for 'unemployment rate' in Małopolskie, a very strong positive correlation in Kujawsko-pomorskie, Lubelskie, Lubuskie and Podkarpackie ('average guarantee value' explained 6% of the variance of the 'unemployment rate' dependent variable in Kujawsko-pomorskie, 6% in Lubelskie, 5% in Lubuskie, 8% in Podkarpackie and 5% in Małopolskie);
- a very strong positive correlation was found for 'investment outlays per inhabitant (EUR)' in the Małopolskie voivodeship and a very strong negative correlation in Podkarpackie ('average guarantee value' explained 7% of the variance of the 'investment outlays per inhabitant (EUR)' dependent variable in Małopolskie and 6% in Podkarpackie);
- a very strong negative correlation was found with 'total investment outlays' in Podkarpackie ('average guarantee value' explained 7% of the variance of the 'total investment outlays' dependent variable);
- a very strong negative correlation was found with 'number of enterprises per 10,000 population' in Dolnośląskie, Kujawsko-pomorskie, Lubelskie, Lubuskie, Opolskie, Podkarpackie, Śląskie and Warmińsko-mazurskie, whereas in Łódzkie and Małopolskie a very strong positive correlation was found between the aforementioned variables ('average guarantee value' explained 6% of the variance of the 'number of enterprises per 10,000 population' dependent variable in Dolnośląskie, 8% in Kujawsko-pomorskie , 8% in Lubelskie, 7% in Lubuskie, 6% in Opolskie, 6% in Podkarpackie, 7% in Śląskie, 6% in Warmińsko-mazurskie, 6% in Łódzkie and 6% in Małopolskie);
- there were no significant correlations of 'average guarantee value' with the 'entities newly entered in REGON register' variable, in any of the voivodeships.

Summing up the performed analyses, it is possible to notice diversification in terms of activity of both types of funds and their impact on the regional development. Loan funds that provide lending support may have a greater impact on the local economy. In the case of guarantee funds, their activity brings benefits to the banks whose lending is secured by the funds (Lensink, Mersland, Thi Hong Vu, and Zamore, 2018).

5. Conclusions

As a result of the analysis, it may not be unequivocally concluded that the current loan and guarantee funds have a significant impact on the condition of the region. This is certainly due to the region of operation, the scale of their impact and their activity, which is much smaller than that of bank lending campaign (Gemzik-

Salwach, and Perz, 2018). Other elements matter as well, such as the amount of capital and the condition, willingness of enterprises to invest. The functioning of the examined microfinance institutions is useful and reasonable, however, as a great number of these institutions faces capital shortages, the impact and role in the region will diminish (Gemzik-Salwach, 2018; The impact of international …, 2019). The concept of their operation should be reconsidered. The analysed data do not indicate a clear correlation between the size of funds, their activity and the level of economic development of the region.

The research study has shown the uneven impact of loan funds and guarantee funds on the economies of the regions in which they run their business. In some voivodeships, the impact of the funds is greater, and smaller in the other, nevertheless it should be noted that in their history the funds have supported many enterprises, mainly micro-, small and medium ones. Even though there are not any unambiguous correlations, we should note the challenges faced by the funds.

Today, loan and loan guarantee funds must seek new solutions to increase their importance and role. One such solution is the consolidation and creation of macro-regional funds, which would be able to respond to the demand from enterprises in the event of limited bank lending. The analysed institutions must also face competition from central (government) initiatives, which are generally undertaken on a larger (national) scale (Fundusze pożyczkowe w Polsce, 2019). This is particularly true for loan guarantee funds (Gajewski, Kubajek, and Szczucki, 2019).

Capital enhancement and greater territorial coverage would enable increased cost-effectiveness, the use of modern technological solutions for evaluation and customer service. Through the economies of scale, the funds could increase the quality of their products. Larger entities would motivate the banks to extend the range of services. Loans and guarantees are an alternative to bank financing, however they are also supplemental products, especially for young and small companies, for whom cooperation with the analysed funds is the first contact with a financial institution. Loan and guarantee funds are not and never will be competitors for banks – they are their supplement. Their aim is to support companies excluded from the banking sector or to intervene in a situation where banks' activity is restricted or the market is failing.

Unlike Western European, Asian, African microfinance institutions, Polish do not directly support people, only mainly enterprises, also these have just started their activity. However their activity provides evidence of their importance to economies, especially local ones. Moreover, to increase efficiency and effectiveness, certain assumptions need to be considered. Larger funds would have a greater impact on the market, yet there is a problem of ownership. Most of the funds belong to regional and local authorities. Another solution is to develop a comprehensive programme addressed to loan and guarantee near bank institutions, e.g. in the form of special, dedicated products. An example includes the financial line for loan funds, which

increases their operational capacity. Such a repayable financial instrument will temporarily strengthen the capital base and ensure continuity of support to the SME sector.

The existence of regional microfinance institutions is useful and beneficial. Increasing their importance and impact requires changes and decisions to be taken at both local and central level. It is important to avoid cannibalism in programmes supporting the development of companies and regions, as in such clashes the smaller companies will always lose and suffer the consequences. The challenges to a greater extent affect the loan guarantee funds which together with their owners must search for new ways of running their business activity. Surely, the loan guarantee funds have to seek new opportunities by using state-of-the-art technologies and market niches in which commercial banks are not interested.

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