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## **Credit situation of microenterprises in Poland – trends and implications**

**Abstract.** The study aim is to characterise and assess the credit situation of microenterprises in Poland in 2020–2022. We focus on credit dynamics and quality, including total loans, investment loans, working capital loans, and overdrafts. We use monthly data from Polish Credit Information Bureau (BIK). The research covers the period between July 2020 and July 2022. We observe a significant increase in the dynamics of loans granted to microenterprises at the beginning of 2021 and a downward trend in the following analysed months. The fluctuation is similar for investment loans, working capital loans, and overdrafts. We claim that a decrease in the dynamics and interest in loans by microenterprises is not dependent only on the COVID-19 pandemic. A substantial reduction in the value of the Portfolio Quality Index is noticed during the first months of the analysed period (second half of 2020). Then its value stabilizes at a low level. The Index of Portfolio Quality for all analysed industries shows similar values. The analysis results indicate an unfavourable trend that should worry the microentrepreneurs sector and may also negatively affect the entire economy.

**Key words:** microenterprise, external capital, banking loan, credit dynamics and quality

### **Introduction**

Small and medium-sized enterprises (SMEs), including microenterprises, are among the smallest entities conducting economic activity. Their importance for the economy is vital, as they become a powerhouse of the economy (Ayyagari et al., 2007; Erdogan, 2018; Xia & Gan, 2020). According to European Commission, more than 23 million SMEs in the non-financial business economy operate in the EU in 2022, including almost 2.1 million in Poland (Statista, 2022). Referring to such a large number of microentrepreneurs in Poland, their substantial contribution to GDP (PARP, 2021, p. 19) and job creation (Jasińska-Biliczak, 2015, p. 75) are often indicated.

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Unfortunately, another frequently discussed issue is also the capital limitations that accompany running a business. This is of particular importance when running a micro-scale business. The first factor that plays an important role here is the limited swing of possibilities. In the case of large corporations, a number of available sources of capital are listed that support the development or current operations. Such sources include, for example, funds obtained on the capital market (shares, bonds) or private equity. Access to finance is vital in every SMEs business stage (start-up, development, and growth), as these enterprises have very different needs and face different challenges in terms of finance compared to large companies. The lack of equity invested in small enterprises makes them substantially dependent on other external sources, including bank loans and overdrafts (Rossi et al., 2015). For many microentrepreneurs, the choice of external capital is limited (Andrzejak, 2017, pp. 79–80). For many of them bank loans are still the most popular source of capital (NBP, 2016, p. 11; Wielechowski et al., 2021). Therefore, examining the condition of the loan portfolio is of great importance. In many cases, it is the basic debt of microentrepreneurs.

Literature indicates many capital barriers on the supply side and more and more often attention is paid to the demand issue (Harel and Kaufmann, 2016; North et al., 2010). The demand barrier is derived from the reluctance of companies to incur debt (Wrońska-Bukalska, Wilkowska, 2017), which may result, among other things, from fear of risk. The supply barrier, as already mentioned, refers to limitations in access to financing despite the willingness to incur debt (Stiglitz, Weiss, 1981). There is no doubt, however, that capital is necessary for the further development of the small enterprises (Steinerowska-Streb and Steiner, 2014) and the internal sources of financing are in many cases insufficient. A decrease in incurring liabilities, especially long-term ones intended for investments, may also indicate that entrepreneurs are concerned about the future economic situation.

Due to the limited access to capital, bank financing is recognized as crucial to small and microenterprises' performance, i.e., their operation, survival, and development (Vasilescu, 2014). The key factors influencing the demand for credit among enterprises are levels of their economic and investment activity and interest rates (Calza et al., 2003). The COVID- 19 pandemic has increased the uncertainty among SMEs in Poland and negatively affected their credit activity and credit availability (Zajac et al., 2021).

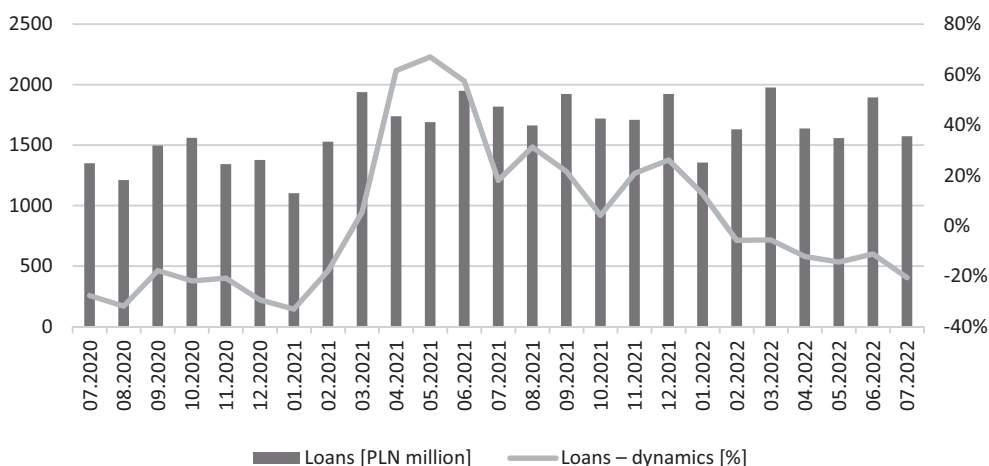
## **Methodology**

The study aim is to characterise and assess the credit situation of microenterprises in Poland in 2020–2022. We focus on credit dynamics and quality, including total loans, investment loans, working capital loans, and overdrafts. We use monthly data from Polish Credit Information Bureau (BIK), the primary source of credit and economic information in Poland, which collects detailed information on the credit obligations of entrepreneurs and consumers.

The research covers the period between July 2020 and July 2022. The critical literature review is based on Polish and foreign research studies. In the empirical analysis, we use descriptive statistics and graphical presentation.

### Dynamics of loans to microenterprises

As mentioned above, enterprises need capital to function and develop. This, in turn, is, in many cases, obtained in the form of a bank loan. A single enterprise and its liabilities do not constitute a significant object of interest for the bank and even less for the entire economy. However, the whole enterprise sector is quite different. Microenterprises constitute an essential element of the economy. Therefore, their credit standing and the tendency to incur new liabilities are important for many other economic entities. Below presented figures depict the credit dynamics of microenterprises and the amount of acquired liabilities.



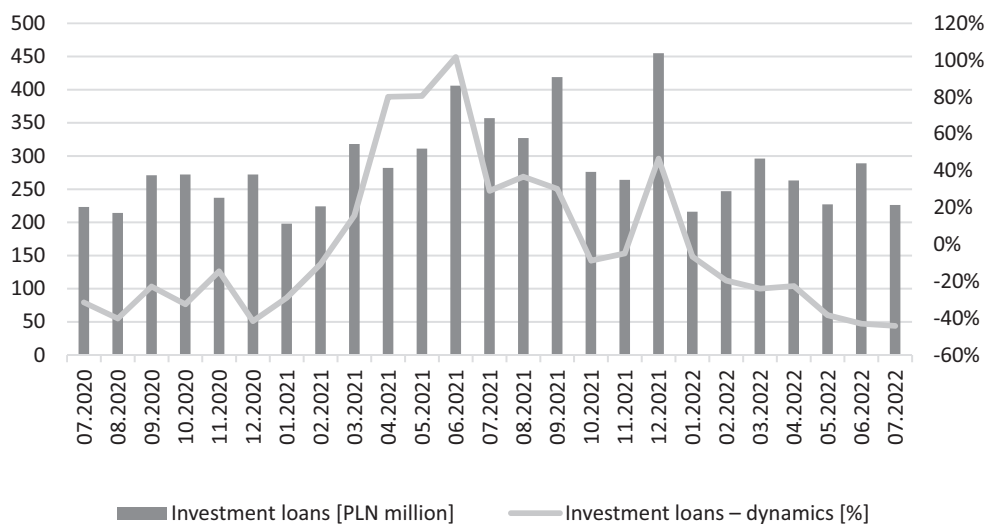
**Figure 1.** Sales dynamics of loans to microenterprises – total loans

Source: own elaboration based on BIK data.

Figure 1 shows the credit standing of microenterprises in the period of two years, from July 2020 to July 2022. Each month during the analysed period, the value of loans granted to microenterprises ranged from 1102 to 1976 PLN million. The lowest value was recorded in January 2021 and the highest was in March 2022. As noted in previous studies, the lending activity of the banking sector during the COVID-19 pandemic was conditioned by both demand and supply factors (Zatoń et al., 2022, pp. 115–123).

However, the credit dynamics seems to be more important information. This dynamics clearly shows a downward trend from May 2021 to the last analysed period. A worrying tendency is the negative dynamics in recent months. The dynamics from a given month informs about the value of loans granted in a given month to the corresponding value from a given month of the previous year. The negative values of the dynamics indicate that enterprises took out fewer loans compared to the previous year.

The decrease in the value of taken loans proves the deteriorating economic situation in the entire microenterprises sector. An investment loan is proof of this fact. If there is

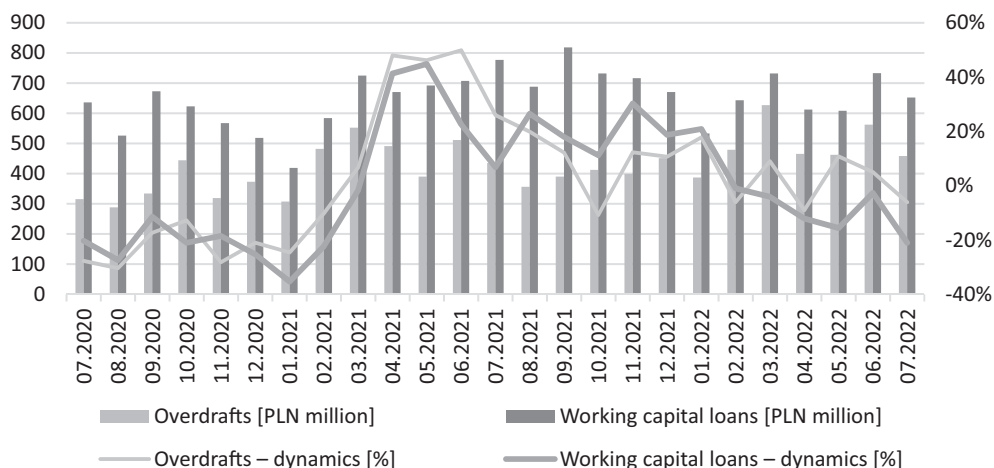


**Figure 2.** Sales dynamics of loans to microenterprises – investment loans

Source: own elaboration based on BIK data.

a slowdown in investment, it means that enterprises are concerned about the situation in the future. The analysed trend is presented in Figure 2.

The pictured trend and the value of investment loans granted to microenterprises are similar to the overall loan trends. It cannot be said that the noticeable decline in interest in the loan offer is caused by the COVID-19 pandemic. It should even be noted



**Figure 3.** Sales dynamics of loans to microenterprises – working capital loans and overdrafts

Source: own elaboration based on BIK data.

that despite easing sanitary and economic restrictions at the beginning of 2022, there was no rapid increase in the interest in investments and investment loans among microentrepreneurs (Figure 2).

Other significant loans are working capital loans and overdraft facilities. Their importance is directly related to financial liquidity. Financial liquidity is one of the most important elements of corporate financial management. Unfortunately, in many cases smaller enterprises, which include microenterprises, struggle with liquidity problems in their current operations. Previous studies have identified the impact of the COVID-19 pandemic on microenterprise credit dynamics (Zajac et al., 2021). The credit standing of microenterprises for working capital and overdraft facilities is presented in Figure 3.

In the case of loans related to financial liquidity, it can be noticed that they did not achieve such a low dynamics as in the case of investment loans in the last analysed month. The dynamics for investment loans in July was  $-44.2\%$ , for working capital loans  $-21\%$  and for overdraft facilities  $-6.1\%$ . It should be noted that despite more minor fluctuations, there is still a clear downward trend (Figure 3).

### Quality of microenterprises loans

Quality Index was prepared by the Credit Information Bureau (BIK). It informs about the situation of liabilities of microenterprises, mainly based on delays in payments, debt collection or even enforcement of liabilities (BIK, pp. 1–4). This indicator clearly and transparently informs about the credit standing of selected entities.

The indices included in the index are calculated on the basis of liabilities with a history of at least two months. The primary source of information is the data provided to the Credit Information Bureau by financial institutions. Therefore, the presented data should be considered credible and reliable, although, as BIK claims, there may be changes in the value of historical data in later periods. These changes should not, however, significantly change the results of previous periods.

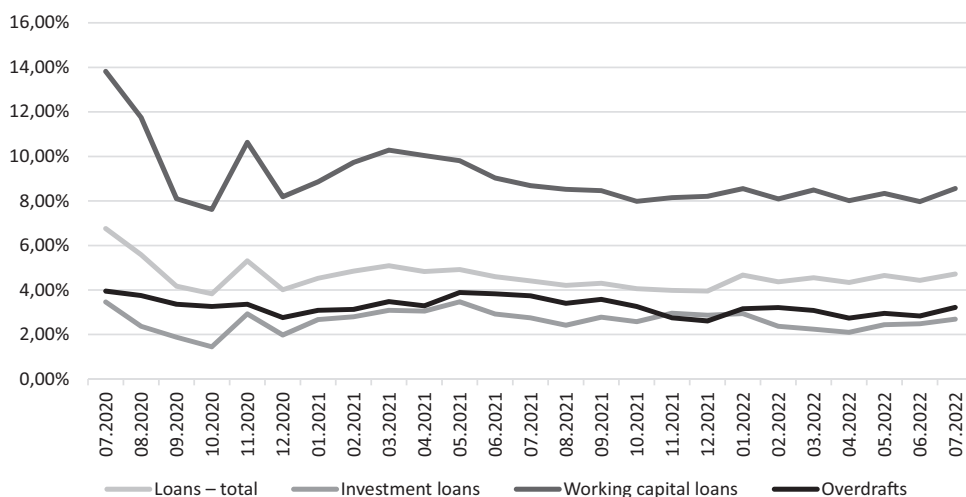
The structure of the Loan Portfolio Quality index is as follows (BIK, 2022, p. 4):

$$W_n = \frac{\sum \text{the number or amount to be repaid of defaulted liabilities in a given month}}{\sum \text{the number or amount to be repaid without delay at the beginning of the month}}$$

The basic index is calculated on the basis of the sum of the amount or number of loans overdue more than ninety days or under debt collection or enforcement to the corresponding amount or number of loans. Then the index itself is calculated, which is based on the arithmetic mean of the current month and two previous months. After multiplying the obtained average by twelve, the result of the index for a given month is obtained. These outlines are presented in the following formula:

$$\text{Credit Potrfolio Quality Index} = \frac{W_{n-2} + W_{n-1} + W_n}{3} \cdot 12.$$

Based on the above formula, the value of Micro-Enterprise Credit Quality is obtained. The lower the level of the ratio, the better the quality of the loan portfolio, therefore the increase in the value of the index indicates a deterioration in liabilities of microenterprises. The index results for the analysed period of two years from July 2020 to July 2022 are presented in Figure 4.



**Figure 4.** Average values of the Credit Portfolio Quality Indexes

Source: own elaboration based on BIK data.

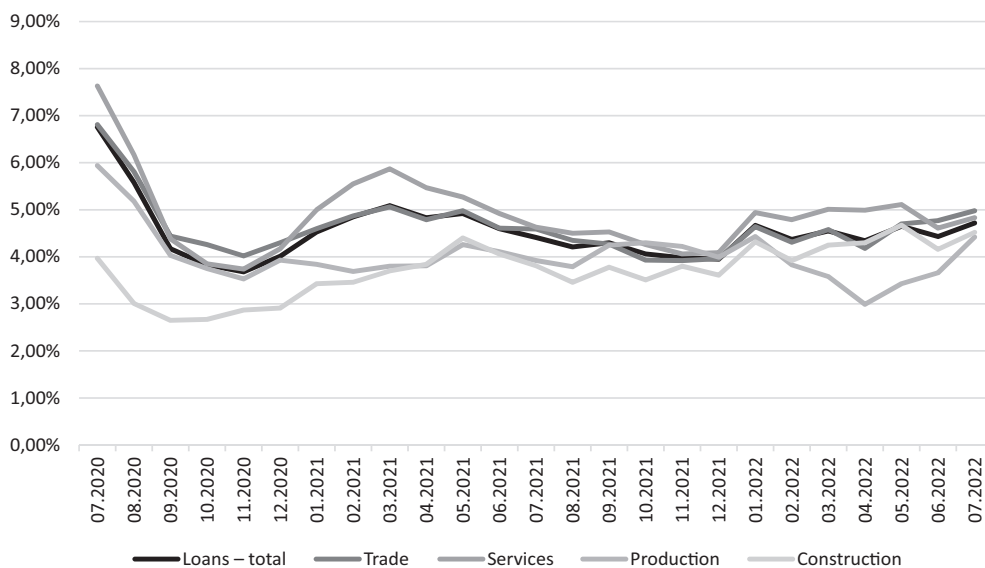
Figure 4 depicts the quality of microenterprises’ loan portfolios in the period of two years, from July 2020 to July 2022. The presented period includes, inter alia, a significant period for the entire economy: the time of the COVID-19 pandemic. Since March 2022, Poland has been loosening the restrictions and returning to complete freedom of business activity (Regulation, 2022). One should also remember government aid in the form of subsidies to interest rates on bank loans granted to entrepreneurs affected by the effects of COVID-19 (Act, 2020). These subsidies are also a factor in improving the credit situation of microenterprises.

In the presented period, the lowest value of the ratio was reported by investment loans (the highest value of 3.47% in May 2021 and the lowest in October 2021). It should also be noted that the fluctuation in quality for investment loans is smaller than for working capital loans.

These, in turn, showed the worst quality of all analysed commitments. It should be noted that the quality index reached its peak at the beginning of the presented period (13.82% for working capital loans) and then showed a downward trend.

The last important issue is the fluctuations in the quality index that have occurred. This was especially visible in the case of working capital loans. It should be noted, how-

ever, that the situation stabilized at the turn of April and May 2021. From then on, it should be noted that the quality of loan portfolios has improved for all types of loans. It can therefore be concluded that microenterprises maintained the quality of loans repaid. It was not obvious, however, due to the deteriorating conditions for running a business, such as high inflation.



**Figure 5.** Average values of the Credit Portfolio Quality Indexes – by industries

Source: own elaboration based on BIK data.

Figure 5 presents the average values of the microenterprise loan portfolio quality index broken down by industry in the same period as in Figure 4. The worst (highest) index readings in the analysed period can be observed in July 2020. However, the difference between the sectors is significant. The lowest reading of indicators is for the construction industry, and the worst is for services and trade. Trends in the quality of loan portfolios are similar. It should be noted that there are differences in the size of fluctuations in individual groups of enterprises. However, it should be remembered that the COVID-19 pandemic, which has hit the services and trade sector the most, is at the beginning of the presented period.

In this case, the high portfolio quality ratio results from business disruptions due to legal restrictions. The effects of the pandemic on businesses include disruptions to operating activities, which might have affected the enterprise’s revenues. Another consequence of this might be the problem with paying liabilities on time.

We observe a significant improvement in the analysed indicator from March to December 2021. In this period, a downward trend is visible, which indicates a better condition of the loan portfolio of microenterprises. In 2022, however, this trend has

changed. An alarming signal in the last month is the increase in the value of indicators, which signals a deterioration in loan repayments. It is also clearly visible that the manufacturing industry, which noted a record reading of the index (2.99%) in April, significantly worsened its situation. In this case, it is difficult to talk about the effects of a pandemic, which does not affect the economic situation so much in the present conditions. Therefore, it should be concluded that despite the diminishing role of the pandemic in economic life, the remaining factors affect the quality of the loan portfolio of microenterprises.

The indicator in the post-epidemic period has not achieved such high results as during the pandemic. However, the readings of the last analysed months should encourage reflection on the future situation of enterprises.

## Conclusions

Credit is one of the most popular sources of financing, particularly for micro- and small enterprises. Having capital is an essential element of running a business and further development. Credit demand results both from the need to ensure financial liquidity (revolving loans, overdrafts) and plans to expand business (investment loans).

The article characterizes the credit situation of microenterprises in July 2020–July 2022 period, i.e., during the COVID-19 pandemic as well as in the post-pandemic time. Based on the conducted research and analysis, we deduce the following trends and consequences. We observe a significant increase in the dynamics of loans granted to microenterprises at the beginning of 2021 and a downward trend in the following analysed months. The fluctuation is similar for investment loans, working capital loans, and overdrafts. We claim that a decrease in the dynamics and interest in loans by microenterprises is not dependent only on the COVID-19 pandemic. A substantial reduction in the value of the Portfolio Quality Index is noticed during the first months of the analysed period (second half of 2020). Then its value stabilizes at a low level. The Index of Portfolio Quality for all analysed industries shows similar values.

The results confirm that the observed decreasing trend of incurring liabilities by microenterprises, as well as the quality of their loans, is not only due to the COVID-19 pandemic. Unfortunately, described movements signal an unfavourable situation for the analysed enterprises and the entire Polish economy.

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