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REPORT ON THE SITUATION IN THE BANKING SECTOR IN 2022

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This report on the banking sector describes the developments in the economic and financial situation of banks and branches of credit institutions in 2022. The events that have occurred after the cut-off date have not been considered in the report.

Essential information

The most important factors affecting the performance of banks included:

- An eightfold increase in the reference rate announced by the Monetary Policy Council in 2022 to 6.75%, by a total of 500 basis points.
- A decrease in the value of loans of the non-financial sector, mainly due to a lower demand for housing loans in the Polish zloty and a material decrease in the value of foreign-currency housing loans caused by:
  - a material increase in the number of court cases related to foreign-currency housing loans resulting in a material increase in the level of provisions for banks exposed to the risk arising from that portfolio;
  - acceleration of the process of entering into settlement agreements with borrowers who contracted foreign-currency mortgage loans, and the related process of converting foreign-currency loans into loans in the Polish currency.
- One-off events:
  - the cost of credit repayment holidays,
  - the establishment of the Commercial Bank Protection Scheme,
  - an additional contribution to the Borrowers' Support Fund.

Key data on the banking sector in 2022:

- Stable structure of the banking sector: no change in the number of commercial banks, a decrease in the number of branches of credit institutions by 3, the number of cooperative banks reduced by 15 – in accordance with the trend prevailing in recent years.
- 2022 was yet another year marked by a reduction of the banking network.
- The concentration of the banking sector increased both in terms of assets and deposits of the non-financial sector.
- The net financial result realised in 2022 amounted to PLN 12 127.7 million and was higher by PLN 6 150.3 million than in 2021.
- Improvement of the banks' efficiency: at the end of December 2022, ROE increased over the year from 3.14% to 6.82%.
- The sector's assets increased by 6.2% (i.e. PLN 160.5 billion) to PLN 2 733.0 billion, and gross receivables (excluding debt securities) from the non-financial sector decreased over the year by PLN 16.1 billion (i.e. by 1.4%).
- The quality of receivables (excluding debt securities) from the non-financial sector improved slightly: the share of Stage 3/impaired receivables in total receivables

decreased from 5.77% at the end of 2021 to 5.51% at the end of 2022, and the improvement occurred for receivables from both enterprises and households.

- The portfolio of foreign-currency housing loans has been decreasing steadily due to its amortisation following repayments, the conclusion of settlement agreements and the resolution of court cases leading to the final settlement of the credit agreement. With the ageing of the portfolio and the reclassification of receivables, the share of Stage 3 receivables increased in 2022 (by 2.7 p.p. YoY).
- Deposits of the non-financial sector increased in the year by PLN 101.4 billion (+6.5% YoY) to PLN 1 650.7 billion. New deposits were acquired mainly by commercial banks (an increase of PLN 98.5 billion).
- In 2022, the equity situation of the banking sector remained stable. The value of the sector's own funds at the end of 2022 was equal to PLN 221.5 billion (+1.0% YoY). The total capital ratio (TCR) at the end of 2022 for the entire banking sector was 19.8%.
- The total amount of exposure to risk decreased by 1.0% YoY.
- At the end of 2022, all commercial banks were meeting the applicable short-term liquidity coverage ratio (LCR). The average value of that ratio in the commercial banks sector has for years exceeded the required minimum of 100%, reaching 177% at the end of 2022.
- All cooperative banks met the applicable liquidity standards in terms of LCR and NSFR. The average values of those ratios in the cooperative banks sector (including the Institutional Protection Schemes – IPS) were 314% and 183%, respectively.
- In early 2022, there was an evident decrease in the value of liquid assets, resulting mainly from a reduction in the value of government bonds following a valuation markdown. Subsequent months saw a gradual increase in the value of liquid assets.
- Since the net stable funding ratio (NSFR) became a regulatory requirement for commercial banks, it has been above 100%. At the end of 2022, the ratio reached 149%.
- The scale of on-balance-sheet financing as part of transactions with entities related through capital went down markedly in connection with changing conditions of the functioning in financial markets.
- Banks systematically raised interest rates on fixed deposits for both retail customers and non-financial enterprises as a consequence of interest rates being raised by the Monetary Policy Council.
- The banks referred to in Article 70(2) of the Act on trading in financial instruments recorded a downward trend in the value of financial instruments (excluding derivatives) acquired by retail customers. The customers' waning interest in financial instruments offered by banks is a consequence of, among other things, high interest rates. A gradual decrease was also seen in the activity of retail customers with regard to derivatives.

1. Banking sector structure

At the end of 2022, 560 entities were active in the banking sector.

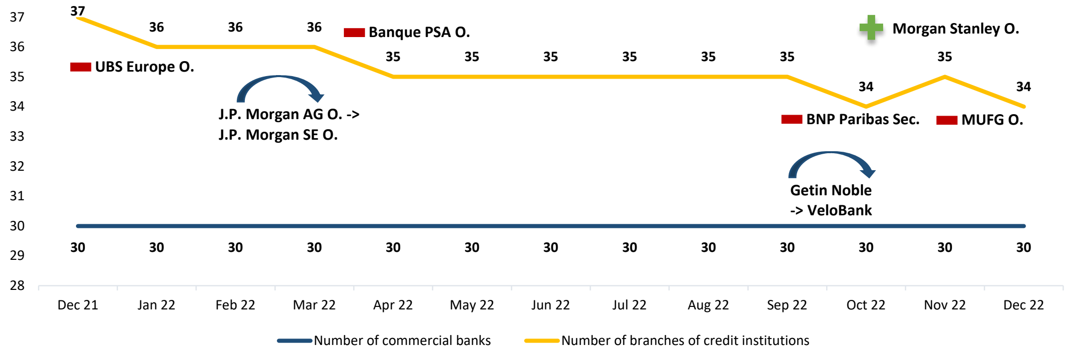
Table 1 Number of banking sector entities

Number of banking sector entities	Dec 22	Dec 21	change
Commercial banks	30	30	0
Branches of credit institutions	34	37	-3
Cooperative banks	496	511	-15
Total	**560**	**578**	**-18**

In the recent year, no major changes occurred in the banking sector structure. However, a few transformations took place in 2022:

- the forced restructuring of Getin Noble Bank and the transfer of a part of its business to the joint bank of the Bank Guarantee Fund and the Commercial Bank Protection Scheme (VeloBank),
- commencement of operations by Morgan Stanley Oddział w Polsce,
- closure of business by UBS Europe Oddział w Polsce,
- closure of business by Banque PSA Oddział w Polsce,
- closure of business by BNP Paribas Sec. Oddział w Polsce,
- closure of business by MUFG Oddział w Polsce,
- transformation of J.P. Morgan AG Oddział w Polsce into J.P. Morgan SE Oddział w Polsce.

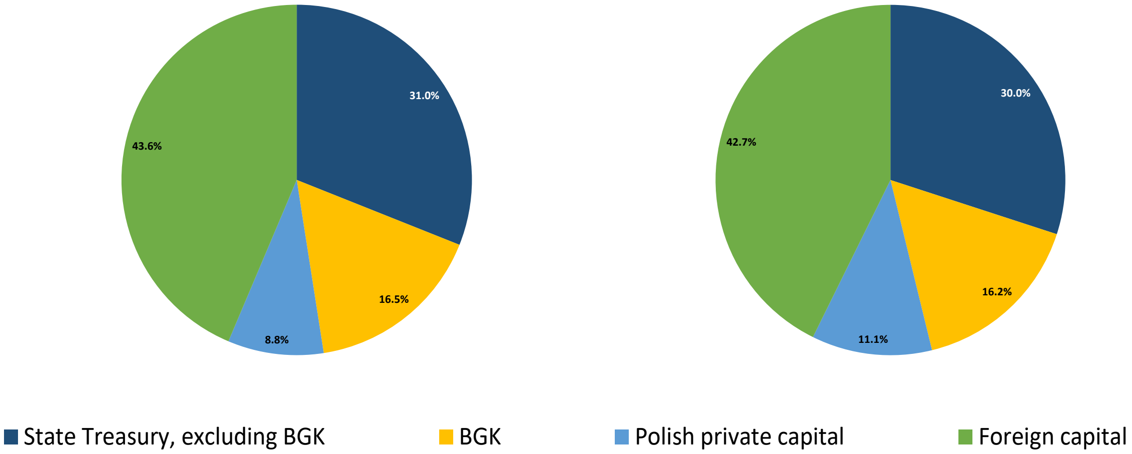
Diagram 1 Change in the banking sector structure



In 2022, the number of cooperative banks decreased by 15 due to the consolidation of the sector.

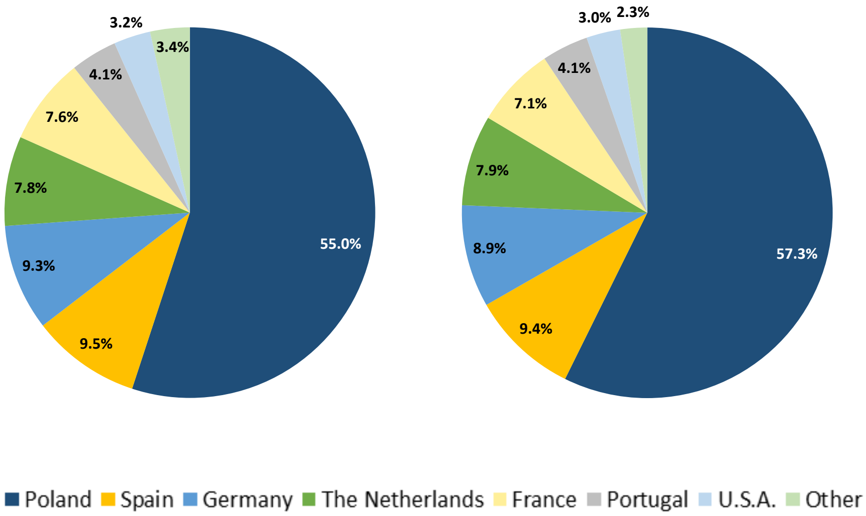
The changes did not have any material effect on the distribution of the origin of capital.

Diagram 2 Capital origin (share in assets – December 2022 and December 2021)



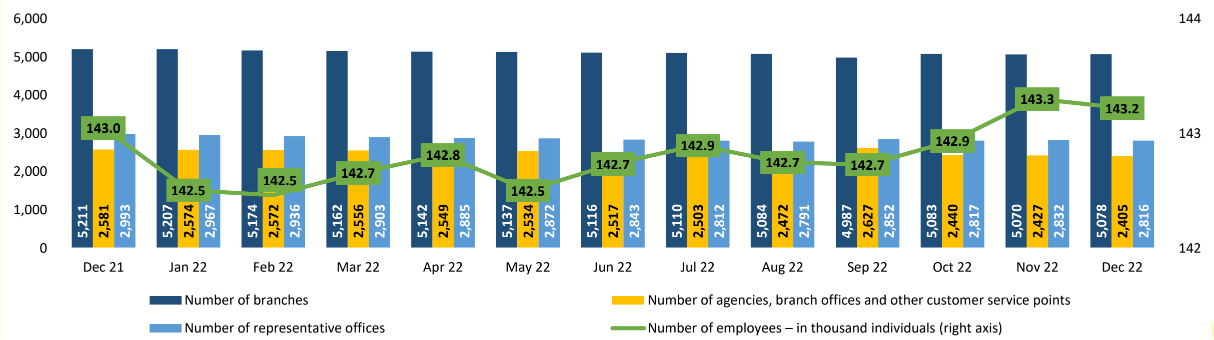
For years, the major sources of capital from foreign investors have been Spain, Germany, the Netherlands, and France. The distribution of investors from individual countries has not changed significantly. In 2022, there was a slight increase in the share of investors from all major countries being present in the Polish banking sector (except for the Netherlands).

Diagram 3 Country of origin of capital (share in assets – December 2022 and December 2021)



2022 was another year marked by a reduction of the banking network. It was mainly due to the development of electronic and mobile distribution channels and the efforts to improve profitability through cost reduction, as well as changes of customers' habits after each lockdown during the pandemic.

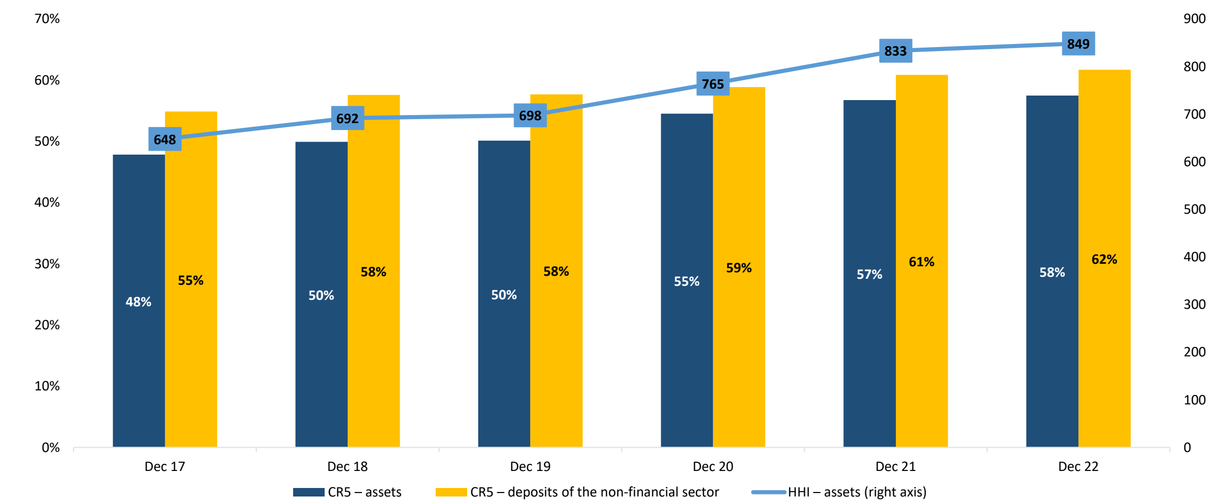
Diagram 4 Banking network and employment in the banking sector



2. Concentration of the banking sector

In recent years, the concentration of assets has increased but the Polish banking sector should be still considered competitive, which is confirmed by the Herfindahl-Hirschman index (HHI) at 848.7. The share of the five major banks grows systematically, both in terms of assets and deposits of the non-financial sector.

Diagram 5 Concentration rates



HHI – the Herfindahl-Hirschman index (the sum of squares of banks' shares in the banking sector assets) is a measure of market concentration. The index takes into account not only the number of entities but also their relative size.
CR5 – indicators representing the shares of 5 banks with the highest balance-sheet total or the highest amount of deposits of the non-financial sector in the banking sector.

3. Results of the banking sector

Table 2 Selected items of the profit and loss account (PLN million)

Item	Dec 17	Dec 18	Dec 19	Dec 20	Dec 21	Dec 22	YoY change 2022/2021	
	(PLN million)						(PLN million)	(%)
Total operating income	**64 013.9**	**64 565.1**	**70 627.0**	**61 964.2**	**67 375.5**	**93 039.1**	25 663.6	**38.1%**
interest income	42 618.9	44 820.3	49 115.7	47 138.9	46 607.5	76 061.7	29 454.2	**63.2%**
fees and commission income	13 764.3	12 306.1	13 363.4	14 849.8	17 158.8	18 457.6	12 98.8	**7.6%**
income on dividends	1 168.5	1 505.7	2 129.6	916.3	1 452.4	1 247.0	-205.3	**-14.1%**
other	6 462.2	5 933.0	6 018.4	-940.8	2 156.8	-2 727.2	-4 884.1	**-226.5%**
Operating costs and depreciation	**36 010.2**	**36 365.9**	**39 247.4**	**39 299.7**	**40 096.9**	**49 828.3**	9 731.4	**24.3%**
staff costs	16 643.2	16 991.0	17 748.4	17 450.3	18 337.9	20 466.9	2 129.0	**11.6%**
general management costs	16 418.2	16 469.8	17 069.9	17 256.3	17 121.2	24 800.5	7 679.3	**44.9%**
depreciation	2 948.8	2 905.1	4 429.1	4 593.0	4 637.8	4 560.9	-76.9	**-1.7%**
Provisions	728.4	628.9	2 405.5	5 495.9	8 317.4	6 483.1	-1 834.3	**-22.1%**
Impairment write-offs	8 860.3	9 430.5	9 566.1	13 348.2	7 149.1	9 277.3	2 128.2	**29.8%**
NET FINANCIAL RESULT	**13 686.6**	**13 046.2**	**13 806.2**	**-322.0**	**5 977.4**	**12 127.7**	6 150.3	**102.9%**
commercial banks	12 652.3	12 215.5	13 242.5	-652.0	6 121.3	10 179.4	4 058.1	**66.3%**
cooperative banks	629.0	638.0	588.1	472.6	702.1	3 171.2	2 469.1	**351.7%**
branches of credit institutions	405.3	192.8	-24.4	-142.7	-846.0	-1 222.8	-376.9	**44.6%**

The banks' net financial result in 2022 amounted to PLN 12 127.7 million and was higher by PLN 6 150.3 million than in 2021. In 2022, when both commercial and cooperative banks reported higher results, branches of credit institutions reported a greater loss. The improvement in the result was mainly due to higher interest income, which increased by PLN 68 291.8 million. That was due to a stricter monetary policy pursued from the end of 2021 and became particularly evident in 2022. Even an increase in interest costs by PLN 38 837.6 million from PLN 4 485.7 million to PLN 43 323.3 million, i.e. by 865.8%) could not reverse the trend. The other items had a less material impact on the results.

In 2022, cooperative banks recorded a profit of PLN 3.2 billion.

Banks' financial result in 2022 was limited by several one-off events, such as:

- entering losses associated with the introduction of credit repayment holidays in the books
- the Commercial Bank Protection Scheme being established by 8 major banks in the sector
- additional payments to the Borrowers' Support Fund.

Banks' result was heavily determined by additional provisions for legal risk on foreign-currency housing loans. The issue has been described in detail in Chapter 5.1.2.2.

Diagram 6 Net financial result of the banking sector (PLN billion)

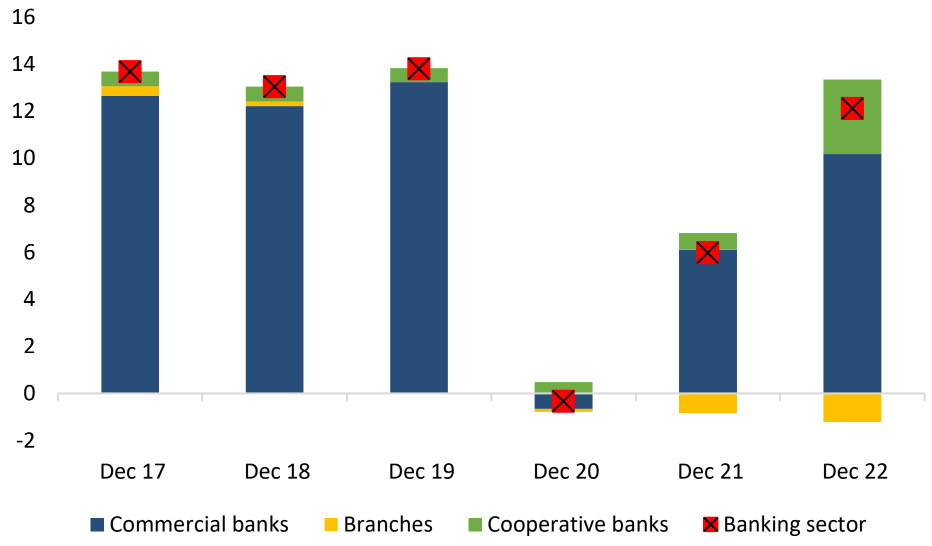


Diagram 7 Banking sector: the net financial result at the end of the period (cumulatively, PLN million)

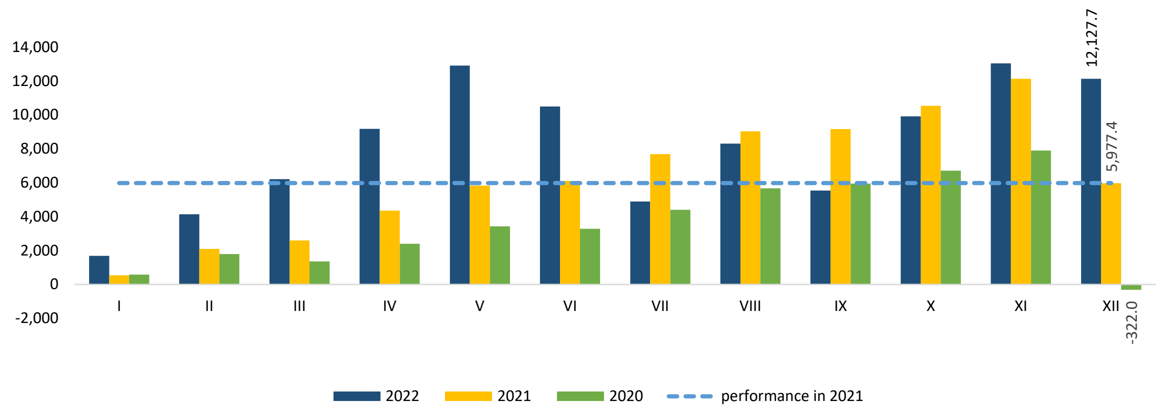


Table 3 Selected items of administrative costs

Selected items of administrative costs	Dec 17	Dec 18	Dec 19	Dec 20	Dec 21	Dec 22	YoY change 2022/2021	
	(PLN million)						(PLN million)	(%)
Staff costs	16 643.2	16 991.0	17 748.4	17 450.3	18 337.9	20 466.9	2 129.0	11.6%
Bank Guarantee Fund	2 102.9	2 116.1	2 760.1	3 221.2	2 256.1	2 598.1	342.0	15.2%
Banking tax	3 630.7	3 628.5	4 056.8	4 496.0	4 689.5	5 428.9	739.4	15.8%
IT costs	1 981.4	1 977.9	2 274.0	2 371.4	2 566.9	3 042.1	475.2	18.5%
Third-party services – other	1 952.4	1 962.2	1 994.2	1 923.3	2 046.3	2 326.1	279.8	13.7%
Marketing	1 058.2	1 249.7	1 289.9	905.7	1 019.7	1 352.2	332.5	32.6%
Rents	2 625.6	2 459.8	1 259.9	1 241.5	1 228.8	1226.5	-2.3	-0.2%
Third-party services – under the Banking Law	755.1	834.2	821.2	708.0	746.2	695.7	-50.5	-6.8%
Other general management costs	2 311.9	2 241.4	2 613.8	2 389.2	2 567.8	8 130.8	5 563.0	216.6%

The largest share (45.2%) in banks' administrative costs was taken by staff costs, which in 2022 increased by 11.6% (i.e. PLN 2 129.0 million). Most items of general management costs increased moderately. An essential cost item was the banking tax, which burdened the institutions with PLN 5.4 billion and increased by 15.8% on a YoY basis. The prominent increase in the other general management costs was mainly caused by the payments to the Commercial Bank Protection Scheme and the Borrowers' Support Fund.

Diagram 8 Banking sector: components of the financial result at the end of December 2022 (PLN million)

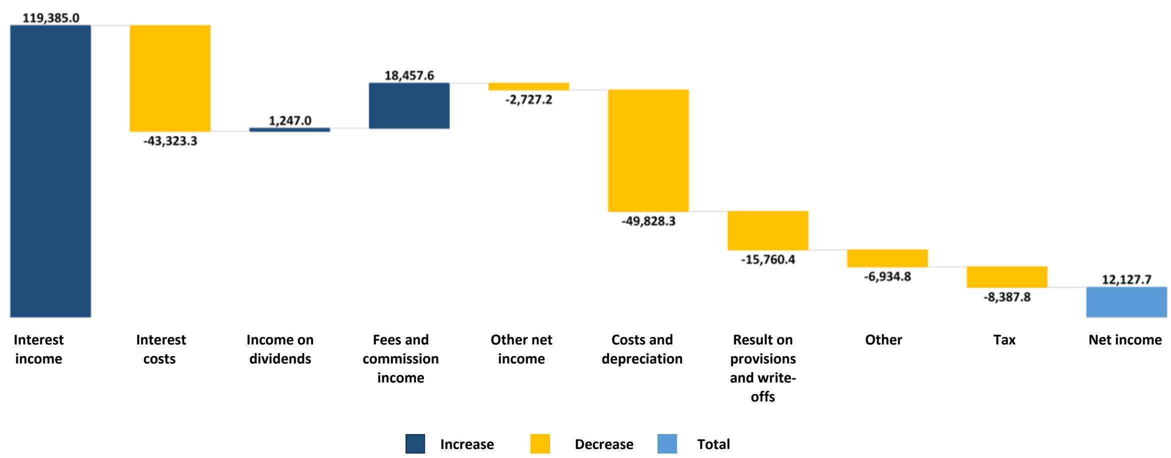


Diagram 9 Banking sector: components of the financial result at the end of December 2021 (PLN million)

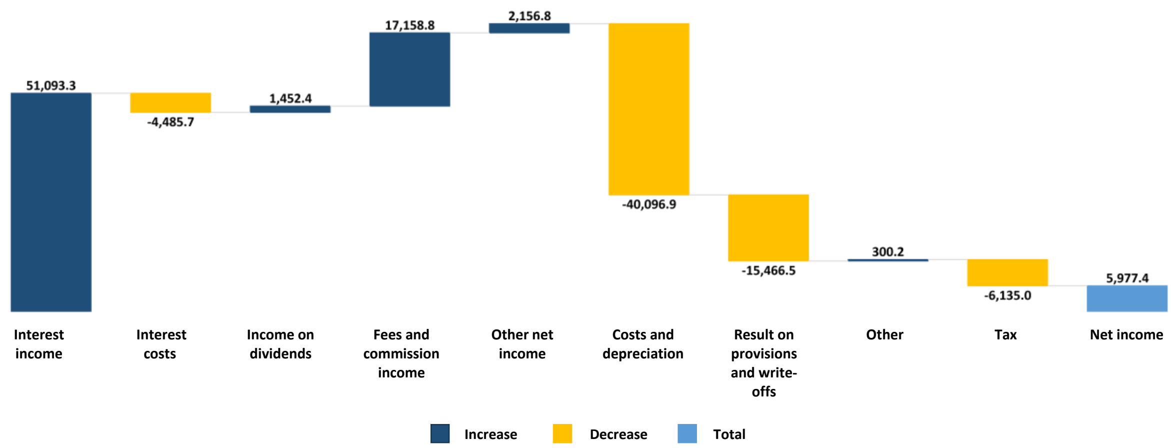
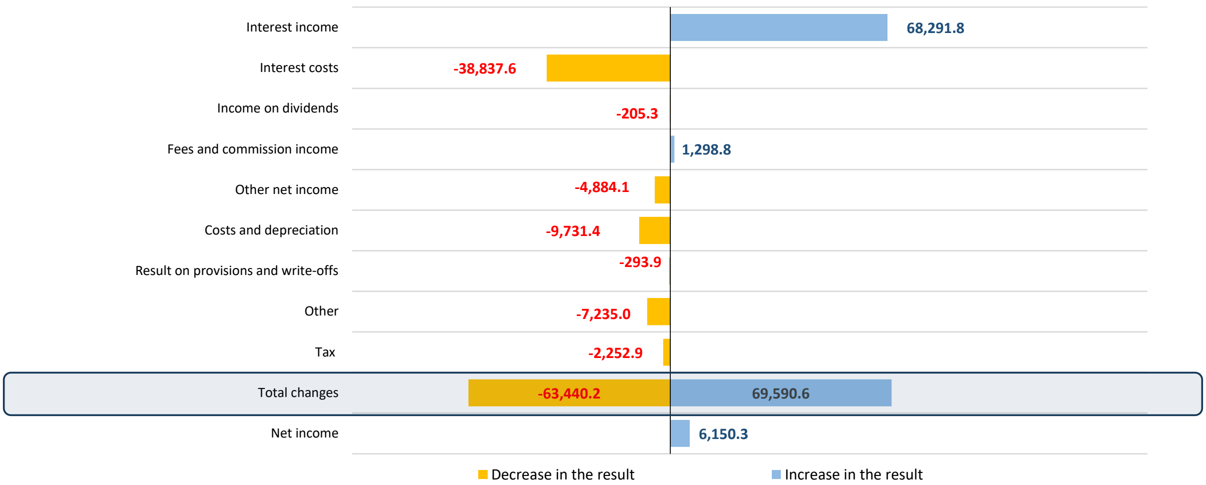
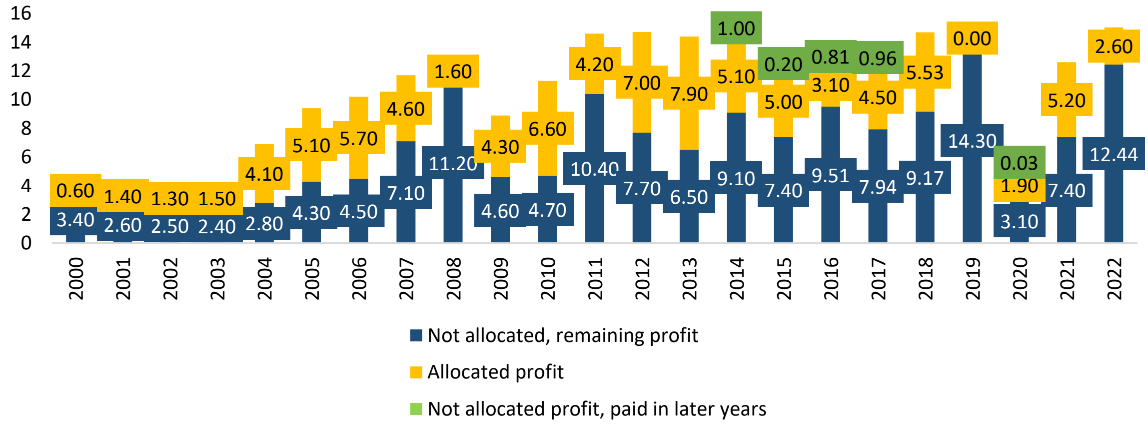


Diagram 10 Banking sector: YoY change of the result (PLN million)



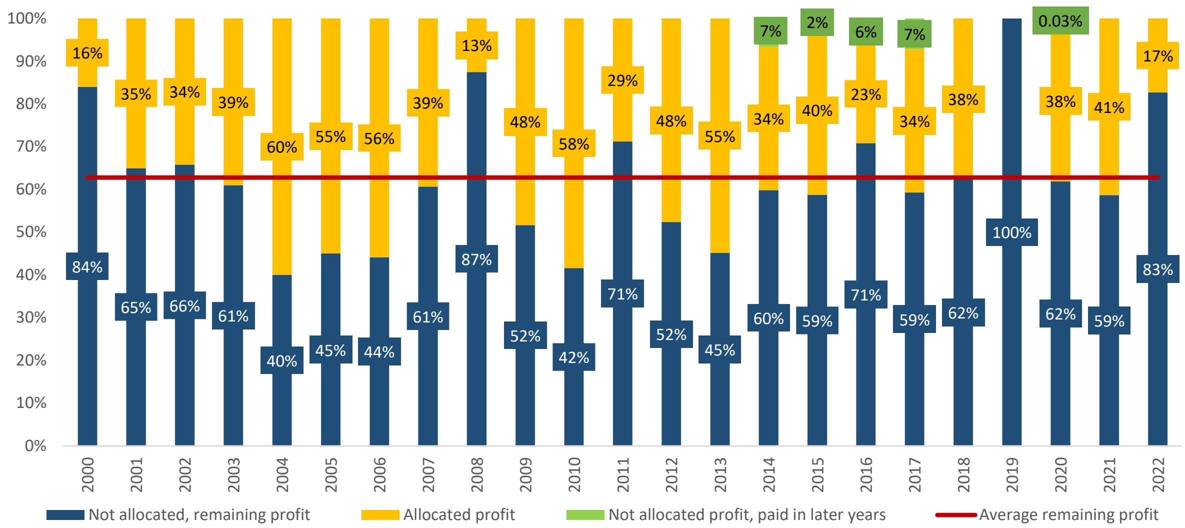
The share of loss-making entities in the assets of the banking sector at the end of 2022 was 16.3%.

Diagram 11 Distribution of profit of commercial banks with a positive financial result (PLN billion)



In 2022, 19 commercial banks generated a profit of PLN 15 billion and the other 11 banks recorded a total loss of PLN 4.9 billion. In 2023, two cooperative banks disbursed a dividend in the total amount of PLN 2.6 billion.

Diagram 12 Distribution of profit in each year



The distribution of commercial banks' profit in 2022 was as follows:

- 52.1%, i.e. PLN 7.8 billion remained;
- 30.6%, i.e. PLN 4.6 billion was not allocated;
- 17.3%, i.e. PLN 2.6 billion was allocated as a dividend.

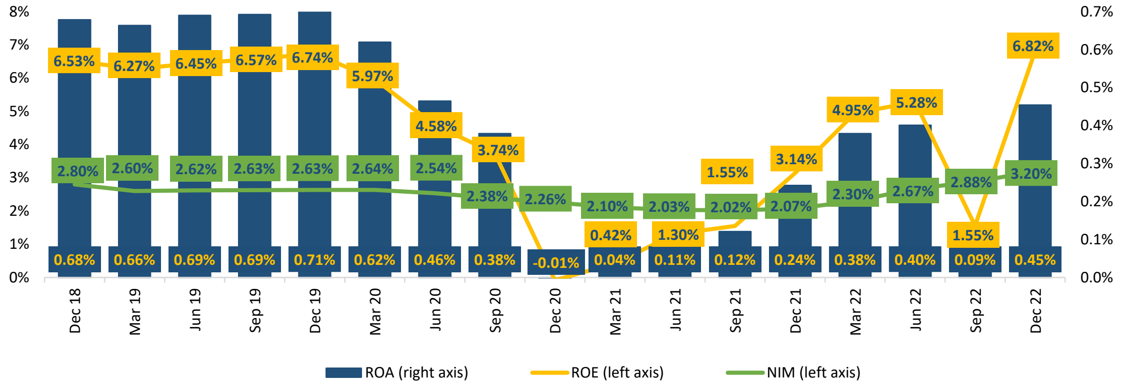
The average profits remaining since 2000 are 62.8%.

Free float and State Treasury are the biggest beneficiaries of the dividend paid in 2023.

4. Viability of the banking sector

2022 was another year marked by a material improvement in viability. Except for the third quarter, the rates of return on capital and assets were growing systematically. The trend break in the third quarter of 2022, as shown in the diagram below, is mainly due to the losses associated with the introduction of credit repayment holidays being entered in the books. Even though the whole programme is spread over two years, banks reported total expected costs related to the programme on a one-off basis, alternatively adjusting them slightly in later periods. At the end of 2022, the total cost of the holidays in the commercial banks' financial result and/or capital amounted to PLN 13.4 billion.

Diagram 13 Efficiency ratios in the banking sector (%)



The major improvement in viability measured as return on assets was recorded by cooperative banks, which resulted from, among other things, lower exposure on low-margin housing loans for households (including loans denominated in foreign currencies) or lack of payments to the Commercial Bank Protection Scheme and creation of provisions for legal risk. Those banks also recorded the strongest improvement of net interest margin.

Table 4 Efficiency ratio in each sub-sector (%)

Date	ROA-12M				Net interest margin			
	Sector	Commercial	Branches	Cooperative	Sector	Commercial	Branches	Cooperative
Dec 20	-0.01%	-0.03%	-0.20%	0.31%	2.26%	2.31%	1.01%	2.19%
Mar 21	0.04%	0.02%	-0.06%	0.27%	2.10%	2.16%	1.02%	1.96%
Jun 21	0.11%	0.11%	-0.51%	0.30%	2.03%	2.08%	1.05%	1.86%
Sept 21	0.12%	0.13%	-0.70%	0.31%	2.02%	2.07%	1.02%	1.85%
Dec 21	0.24%	0.28%	-1.13%	0.41%	2.07%	2.12%	1.03%	1.98%
Mar 22	0.38%	0.41%	-1.22%	0.67%	2.30%	2.33%	1.10%	2.44%
Jun 22	0.40%	0.38%	-0.64%	1.08%	2.67%	2.67%	1.23%	3.27%
Sept 22	0.09%	0.01%	-0.92%	1.59%	2.88%	2.82%	1.37%	4.27%
Dec 22	0.45%	0.42%	-1.55%	1.75%	3.20%	3.09%	1.54%	5.15%

The operating costs to operating income ratio remained at around 50%, and it was lower at cooperative banks than at commercial banks and branches of credit institutions. The income of cooperative banks was less encumbered with provisions.

Table 5 Cost to income (C/I) and provisions and write-offs to income (R/I) (%)

Date	C/I – cost/income				R/I - (provisions and write-offs)/income			
	Sector	Commercial	Branches	Cooperative	Sector	Commercial	Branches	Cooperative
Dec 20	63.42%	61.19%	79.79%	74.99%	30.41%	32.95%	19.22%	10.65%
Mar 21	62.88%	60.61%	82.87%	73.78%	13.92%	14.87%	9.89%	4.96%
Jun 21	58.53%	55.74%	80.01%	75.03%	15.30%	15.36%	24.24%	5.27%
Sept 21	58.15%	55.20%	81.39%	74.53%	15.69%	16.04%	20.82%	5.64%
Dec 21	59.51%	56.89%	78.69%	72.60%	22.96%	23.25%	34.05%	7.71%
Mar 22	53.32%	52.07%	78.90%	48.46%	9.89%	9.07%	20.67%	10.82%
Jun 22	55.08%	54.80%	78.00%	43.88%	12.86%	12.94%	11.61%	12.89%
Sept 22	53.04%	52.72%	79.20%	41.11%	19.49%	20.24%	18.51%	13.86%
Dec 22	53.56%	52.63%	80.73%	46.14%	16.94%	15.94%	35.94%	14.34%

C/I ratio: the relation of costs (operating costs + depreciation of fixed assets and intangible assets) to income (total net operating income); moving average of 12 months.
R/I ratio: the relation of write-offs and provisions (provisions + impairment or reversal impairment) to income (total net operating income); moving average of 12 months.

5. Balance sheet

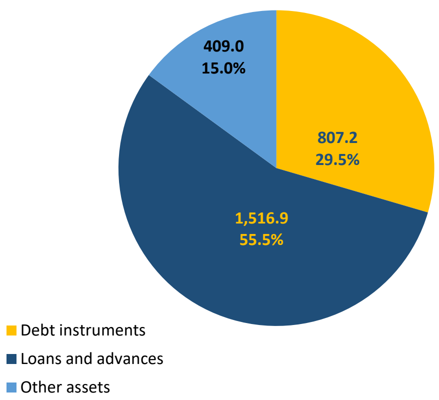
At the end of 2022, the aggregated balance sheet total of the banking sector amounted to PLN 2 733.0 billion and had increased over the year by PLN 160.5 billion (+6.2%), with no material change in the structure of the sector's aggregated balance sheet.

The rising market interest rates affected both the assets and liabilities sides of the balance sheet. On the one hand, fixed deposits were more popular, although their increase was partly due to a decline in current deposits. On the other hand, a reversed movement was recorded in regard to housing loans, for which the new production was limited by a reduced demand among customers (the effect of higher interest rates) and the uncertainty arising from the ongoing aggression of the Russian Federation against Ukraine. The value of foreign-currency mortgage loans also decreased significantly.

Table 6 Balance sheet of the banking sector

	Dec 20	Dec 21	Dec 22	YoY change 2022/2021	
	(PLN billion)			(PLN billion)	(%)
Sector's assets	2 350.0	2 572.5	2 733.0	160.5	6.2%
commercial banks	2 106.0	2 307.9	2 466.1	158.2	6.9%
cooperative banks	167.2	185.0	186.3	1.3	0.7%
branches of foreign banks	76.8	79.6	80.5	0.9	1.1%

Diagram 14 Product structure of the balance sheet – banking sector; December 2022 (PLN billion)



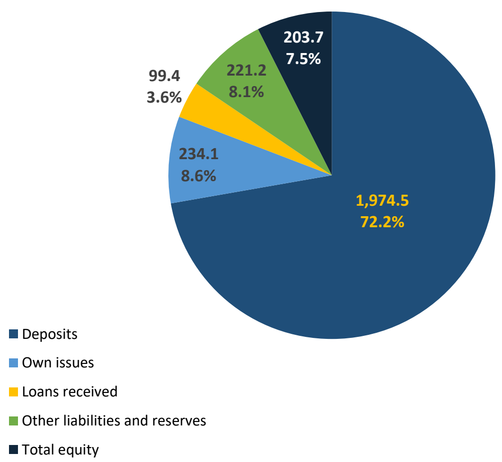


Table 7 Banking sector balance sheet structure – ASSETS

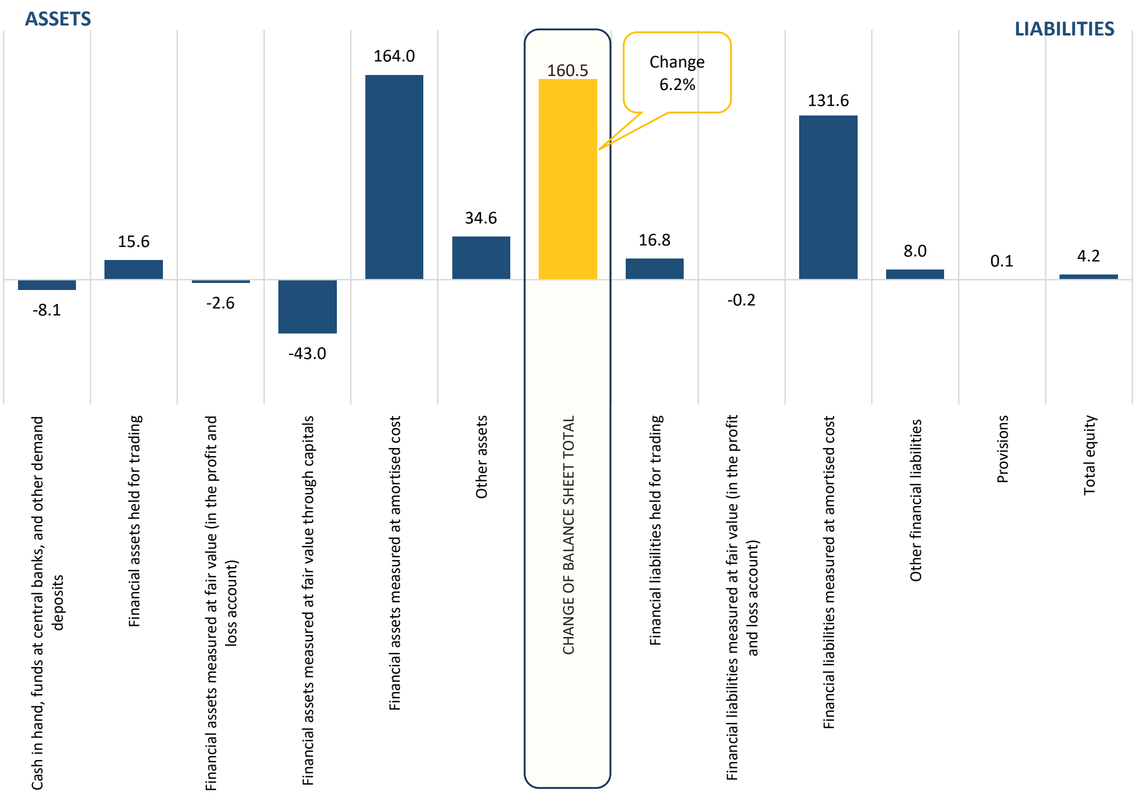
	Dec 20	Dec 21	Dec 22	YoY change 2022/2021	
	(PLN billion)			(PLN billion)	(%)
Cash in hand, funds at central banks, and other demand deposits	112.6	150.7	142.6	-8.1	-5.4%
Debt securities	695.1	740.6	807.2	66.6	9.0%
Equity instruments	6.4	6.0	5.4	-0.6	-9.3%
Loans and advances measured at fair value	55.8	66.8	62.8	-4.0	-6.0%
Loans and advances measured at amortised cost	1 288.5	1 363.9	1 419.7	55.8	4.1%
Other assets	191.6	244.6	295.3	50.7	20.7%

* The items 'Loans and advances' specified in the table cover receivables from all customer segments (including banks), excluding banks deposits payable on demand, which have been reported in the item 'Cash in hand, funds at central banks, and other demand deposits'.

Table 8 Banking sector balance sheet structure – LIABILITIES

	Dec 20	Dec 21	Dec 22	YoY change 2022/2021	
	(PLN billion)			(PLN billion)	(%)
Deposits	1 697.9	1 870.4	1 974.5	104.1	5.6%
Own debt securities issued	191.1	220.2	234.1	13.9	6.3%
Loans from the financial sector	90.6	88.8	99.4	10.6	12.0%
Other liabilities and provisions	150.9	193.6	221.2	27.6	14.2%
Total equity	219.7	199.5	203.7	4.2	2.1%

Diagram 15 Portfolio structure of the banking sector balance sheet – change in 2022



The change of the balance sheet total was influenced mostly by financial assets (debt securities, and loans and advances) measured at amortised cost, and financial liabilities measured at amortised cost which include mainly deposits of the non-financial sector and the general government sector.

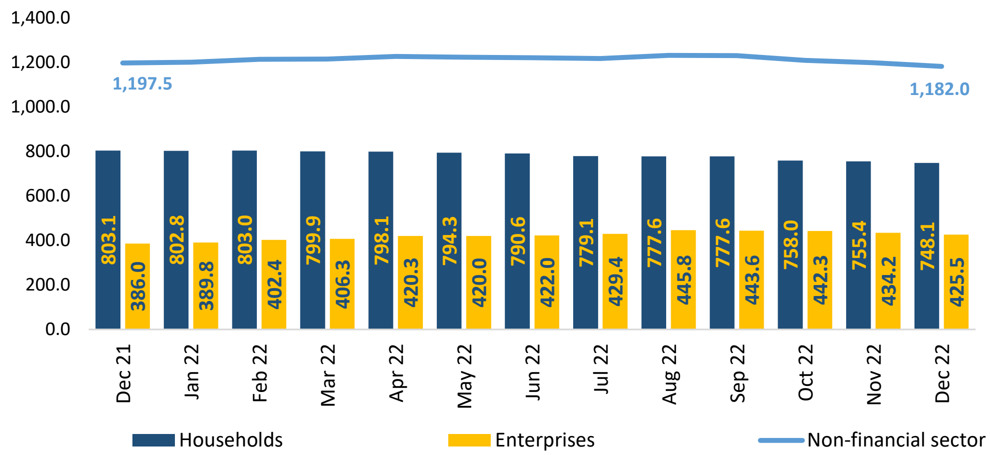
Bank assets are dominated by the 'Loans and advances' category, whose share in the assets at the end of 2022 was 55.5%, 1.0 pp less compared to the end of 2021, mainly due to a greater share of the 'Debt securities' item.

Table 9 Structure of loans and advances

	Dec 20	Dec 21	Dec 22	YoY change 2022/2021	
	(PLN billion)			(PLN billion)	(%)
Financial sector	173.9	206.6	285.0	78.4	37.9%
General government sector	106.7	102.8	103.8	1.0	1.0%
Non-financial sector	1 083.2	1 144.1	1 128.1	-16.0	-1.4%

Data according to carrying amount, taking into account bank deposits payable on demand.

Diagram 16 Gross receivables from the non-financial sector – portfolio B (PLN billion)



The second largest category in terms of share in assets is represented by debt securities, which account for 29.5% of the sector's balance sheet total. Their share in assets increased over the year by 0.7 pp, bearing in mind, however, the material impact of interest rate rises manifesting as a reduction in the carrying amount of some debt securities.

Table 10 Structure of the debt securities portfolio – according to balance sheet valuation

	Dec 20	Dec 21	Dec 22	YoY change 2022/2021	
	(PLN billion)			(PLN billion)	(%)
Financial sector, including:	232.8	303.7	384.9	81.2	26.7%
issued by central banks	121.2	177.2	249.9	72.7	41.0%
Non-financial sector	16.8	18.2	17.6	-0.6	-3.8%
General government sector, including:	445.5	418.7	404.8	-13.9	-3.3%
issued by central governments	420.1	393.5	376.7	-16.8	-4.3%
issued by local governments	25.4	25.2	28.1	2.9	11.4%

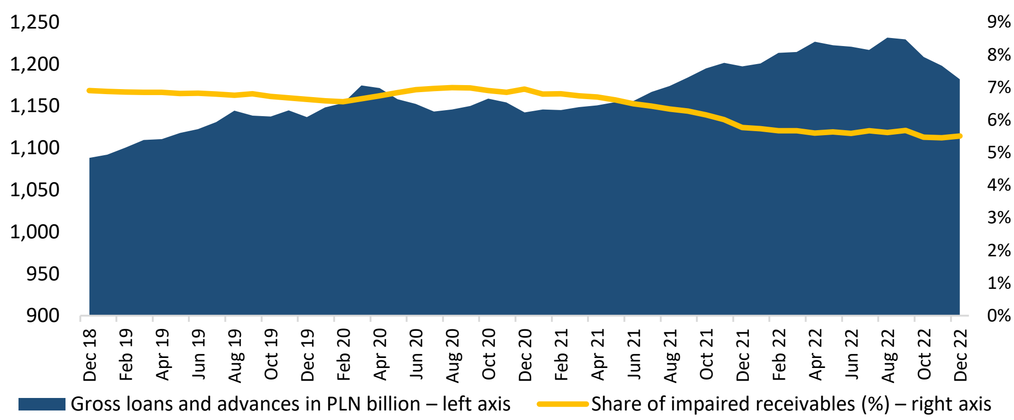
5.1. Receivables from the non-financial sector

At the end of 2022, the gross carrying amount of loans and advances (in portfolio B[1]) granted to non-financial sector entities reached the value of PLN 1 182.0 billion, which means that it decreased by PLN 15.5 billion, or 1.3%.

Table 11 Receivables from the non-financial sector – portfolio B (in PLN billion)

	Dec 20	Dec 21	Dec 22	YoY change 2022/2021	
	(PLN billion)			(PLN billion)	(%)
Total non-financial sector	1 142.5	1 197.5	1 182.0	-15.5	-1.3%
Enterprises	367.6	386.0	425.5	39.5	10.2%
Households	766.8	803.1	748.1	-55.0	-6.9%

Diagram 17 Quality of receivables from the non-financial sector – portfolio B



The quality of receivables from non-financial sector entities measured by the ratio of the gross carrying amount of Stage 3/impaired loans and advances to the gross carrying amount of total loans and advances slightly improved in 2022, which showed a continuation of the trend recorded in 2021.

Table 12 Quality of receivables from the non-financial sector (share of Stage 3/impaired receivables) – portfolio B

	Dec 20	Dec 21	Dec 22	YoY change 2021/2020	YoY change 2022/2021
	(%)			(pp)	
Total non-financial sector	6.95%	5.77%	5.51%	-1.18 pp	-0.26pp
Enterprises	9.03%	7.34%	6.44%	-1.69 pp	-0.90 pp
Households	6.01%	5.06%	5.03%	-0.95 pp	-0.03 pp

[1] Receivables measured at amortised cost and at fair value through other comprehensive income; excluding debt instruments.

Table 13 Stage 3/impaired receivables to write-offs – non-financial sector – portfolio B

	Dec 20	Dec 21	Dec 22	YoY change 2021/2020	YoY change 2022/2021
	(%)			(pp)	
Total non-financial sector	59.38%	60.02%	61.01%	0.64 pp	0.99 pp
Enterprises	52.71%	54.54%	54.92%	1.83 pp	0.38 pp
Households	64.21%	63.84%	65.45%	-0.37 pp	1.61 pp

5.1.1. Enterprises

In 2022, despite the increase in interest rates, the demand for credit among enterprises remained high. An increase in the value of loans and advances for both small and medium-sized enterprises and large enterprises was similar. The quality of the credit portfolio improved, and the receivables to write-offs ratio was similar as in 2021.

Table 14 Receivables from enterprises in the non-financial sector – portfolio B

	Dec 20	Dec 21	Dec 22	YoY change 2022 / 2021	
	(PLN billion)			(PLN billion)	(%)
All enterprises	376.7	396.5	436.6	40.1	10.12%
Large enterprises	176.8	205.3	226.0	20.8	10.13%
SMEs	199.9	191.2	210.5	19.4	10.12%

Diagram 18 Receivables from enterprises in the non-financial sector – portfolio B (PLN billion)

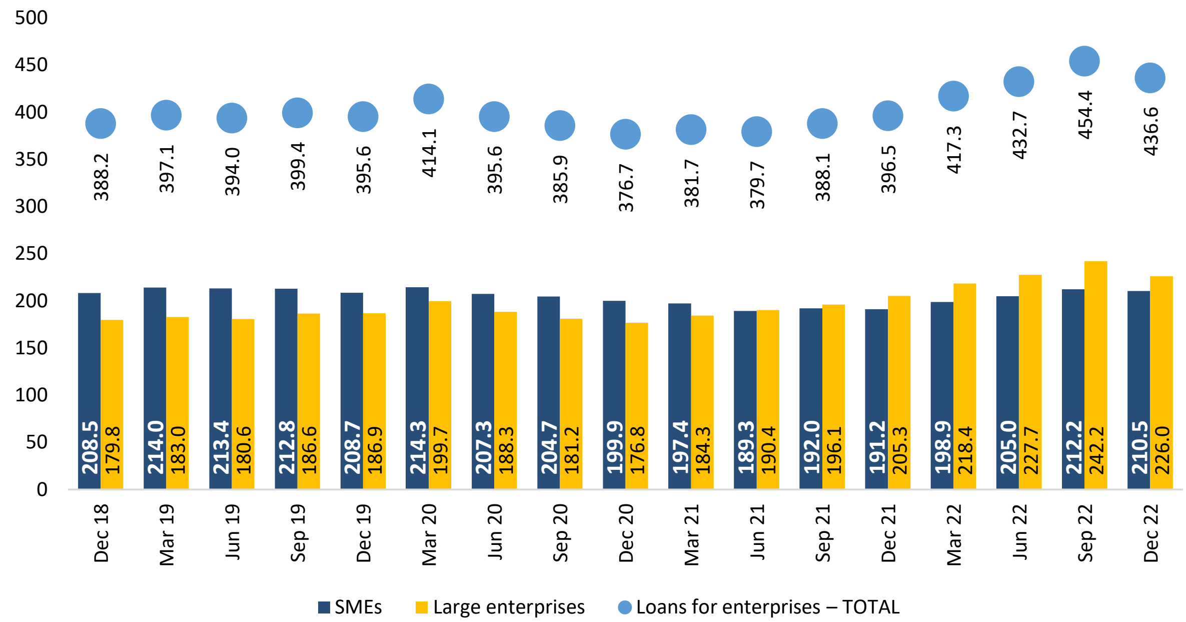


Diagram 19 Quality of receivables (share of Stage 3/impaired receivables) from enterprises in the non-financial sector – portfolio B

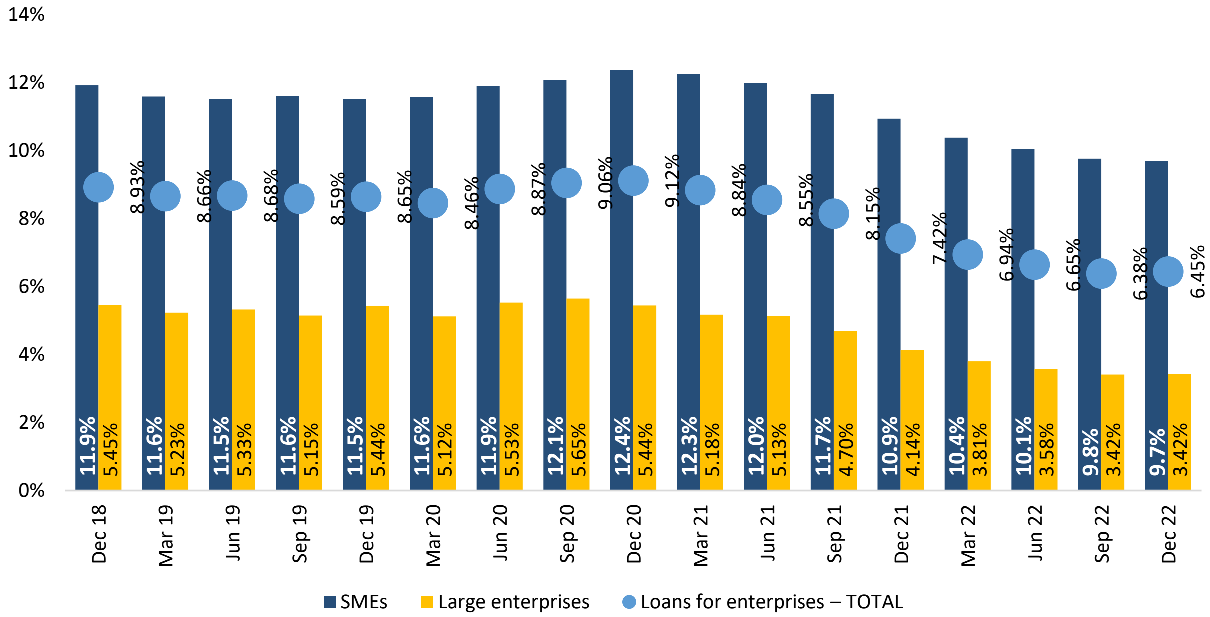
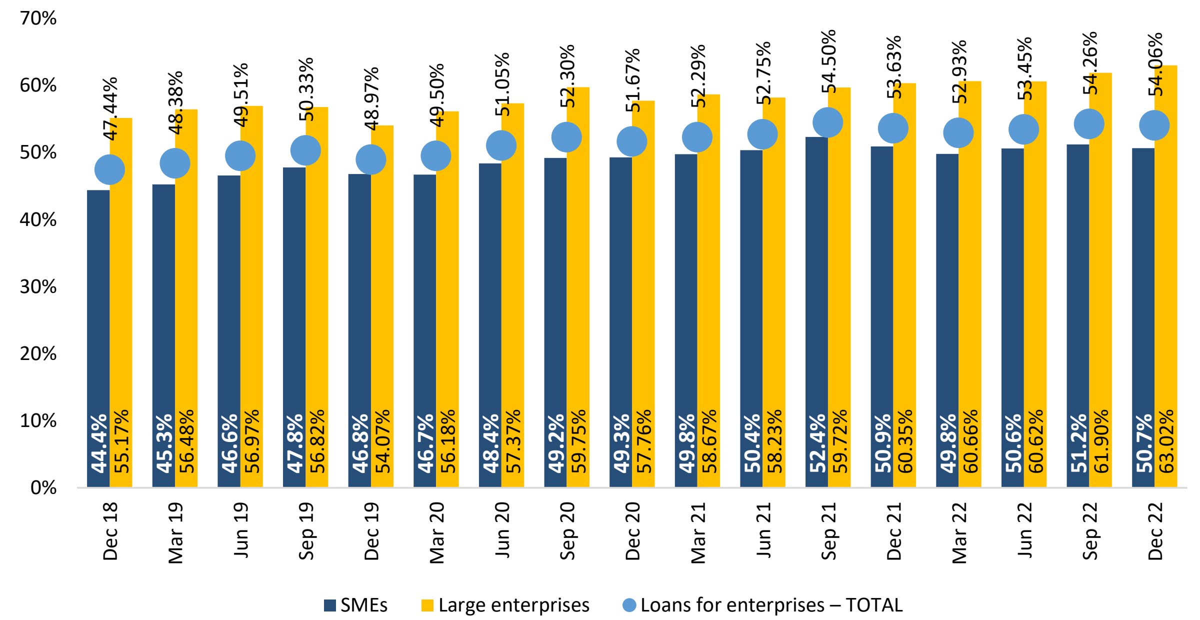


Diagram 20 Stage 3/impaired receivables from enterprises in the non-financial sector to write-offs – portfolio B



5.1.2. Households

Diagram 21 Gross receivables from households – portfolio B (PLN billion)

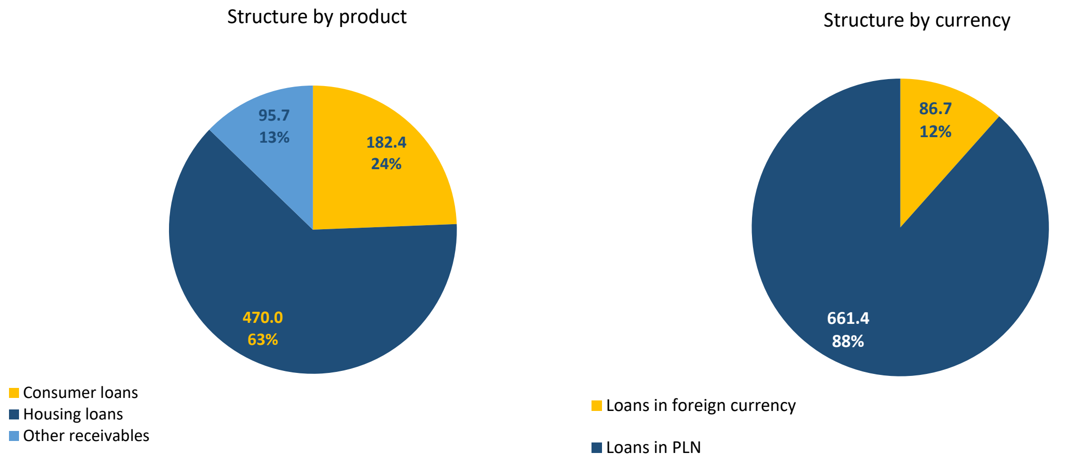


Table 15 Gross receivables from households – portfolio B

	Dec 20	Dec 21	Dec 22	YoY change 2022/2021	
		(PLN billion)		(PLN billion)	(%)
Households, including:	**766.8**	**803.1**	**748.1**	**-55.0**	**-6.9%**
Sole traders	74.4	71.2	63.7	-7.4	-10.4%
Private individuals	661.2	701.0	656.5	-44.5	-6.3%
Individual farmers	31.3	31.0	27.9	-3.1	-10.1%
Housing loans	477.5	509.5	470.0	-39.5	-7.7%
Housing loans in PLN	357.9	403.7	391.5	-12.2	-3.0%
Housing loans in CHF	91.4	77.7	52.3	-25.5	-32.8%
Housing loans – other currencies	28.2	28.1	26.3	-1.8	-6.4%
Consumer loans	178.5	186.6	182.4	-4.3	-2.3%
Other	110.8	107.0	95.7	-11.3	-10.6%

*The 'Other' category includes mostly loans to sole traders and farmers.

Changes of volumes in the 'Housing loans in CHF' category are the result of an adjustment of the gross carrying amount of those loans with the value of provisions for the portfolio's legal risk (banks applying IFRS 9 to those provisions), credit repayments, conversion of part of the loans into PLN, and changing currency exchange rates.

In practice, the quality of receivables from households is determined by the quality of loans granted to private individuals, whose share in the total gross value of loans for households at the end of December 2022 amounted to 87.8%. Good quality of the portfolio of loans to private individuals depends on housing loans, whose share in the portfolio of receivables from that customer segment began decreasing in the second half of the year down to 71.6% at the end of 2022, with consumer loans accounting for 27.8%.

Diagram 22 Quality of receivables from households (share of Stage 3/impaired receivables); banking sector – entities; portfolio B

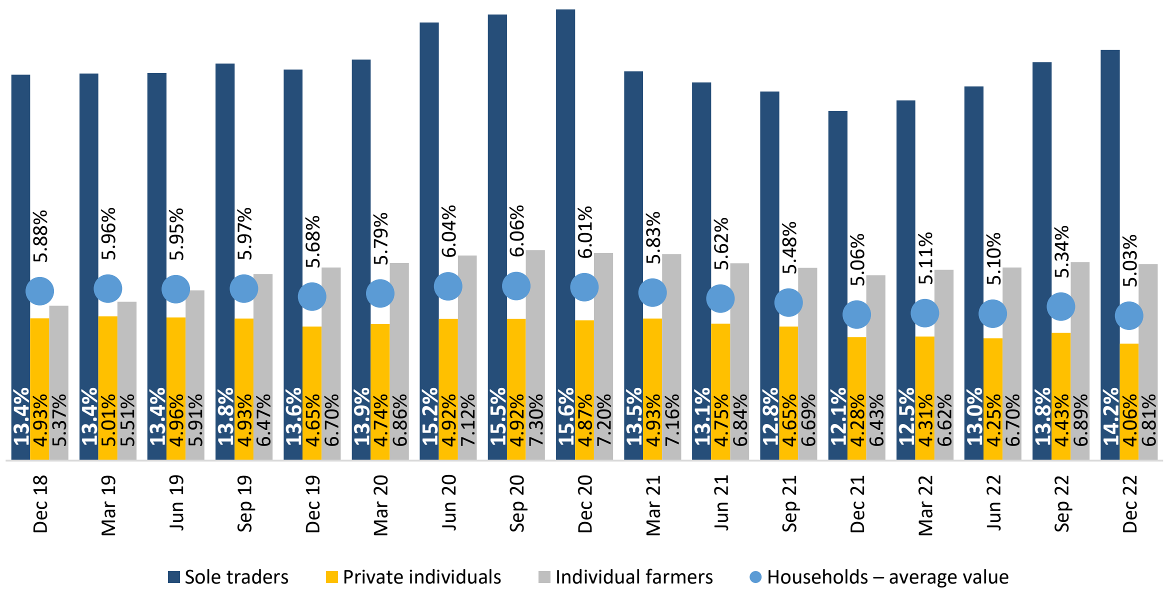


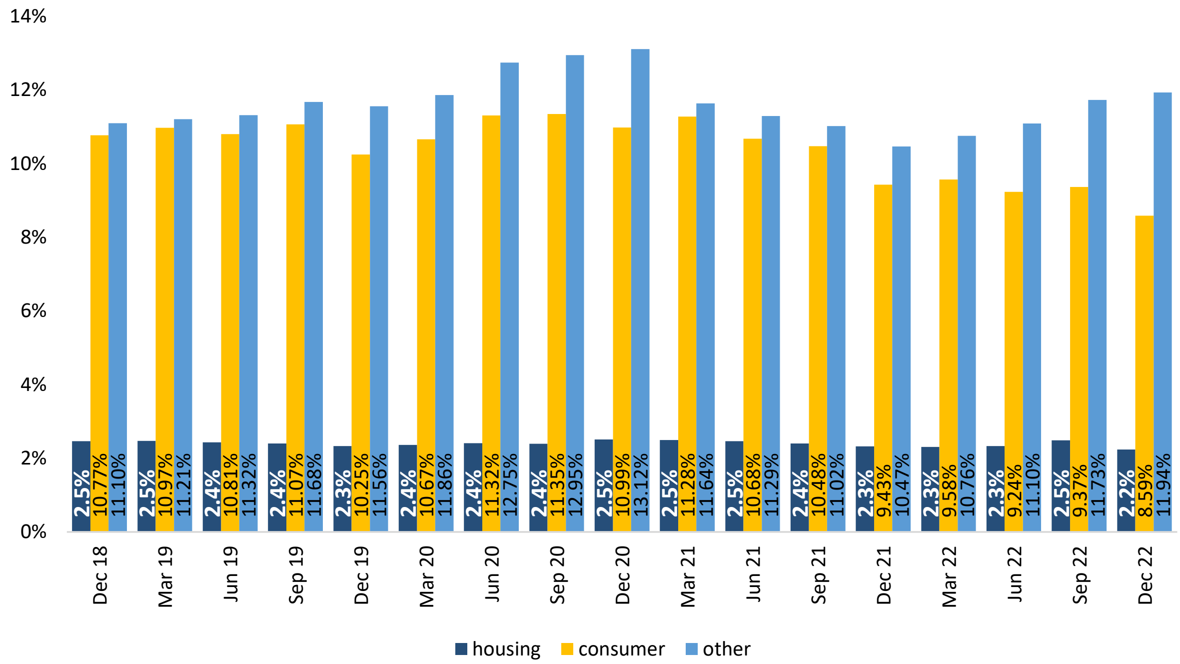
Table 16 Quality of receivables from households (share of Stage 3-performing/impaired) – entities; portfolio B

	Dec 20	Dec 21	Dec 22	YoY change 2021/2020	YoY change 2022/2021
	(%)			(pp)	
Households, including:	**6.01%**	**5.06%**	**5.03%**	**-0.95 pp**	**-0.03 pp**
Sole traders	15.65%	12.13%	14.24%	-3.52 pp	2.11 pp
Private individuals	4.87%	4.28%	4.06%	-0.59 pp	-0.23 pp
Individual farmers	7.20%	6.43%	6.81%	-0.77 pp	0.38 pp

Table 17 Stage 3/impaired receivables from households to write-offs – entities; portfolio B

	Dec 20	Dec 21	Dec 22	YoY change 2021/2020	YoY change 2022/2021
	(%)			(pp)	
Households, including:	**64.21%**	**63.84%**	**65.45%**	**-0.37 pp**	**1.61 pp**
Sole traders	68.49%	63.66%	64.78%	-4.83 pp	1.12 pp
Private individuals	63.99%	64.63%	65.92%	0.64 pp	1.29 pp
Individual farmers	45.15%	52.65%	61.97%	7.50 pp	9.31 pp

Diagram 23 Quality of receivables from households (share of Stage 3/impaired receivables); banking sector – products; portfolio B



The ‘Other’ category includes mostly loans to sole traders and farmers.

Table 18 Quality of receivables from households (share of Stage 3/impaired receivables) – products; portfolio B

	Dec 20	Dec 21	Dec 22	YoY change 2021/2020	YoY change 2022/2021
	(%)			(pp)	
Housing loans	2.51%	2.33%	2.24%	-0.18 pp	-0.09 pp
Consumer loans	10.99%	9.43%	8.59%	-1.56 pp	-0.84 pp
Other	13.12%	10.47%	11.94%	-2.65 pp	1.47 pp

Table 19 Stage 3/impaired receivables from households to write-offs – products; portfolio B

	Dec 20	Dec 21	Dec 22	YoY change 2021/2020	YoY change 2022/2021
	(%)			(pp)	
Housing loans	53.96%	55.74%	60.59%	1.77 pp	4.86 pp
Consumer loans	70.08%	70.61%	69.47%	0.53 pp	-1.14 pp
Other	64.71%	61.77%	64.40%	-2.95 pp	2.64 p

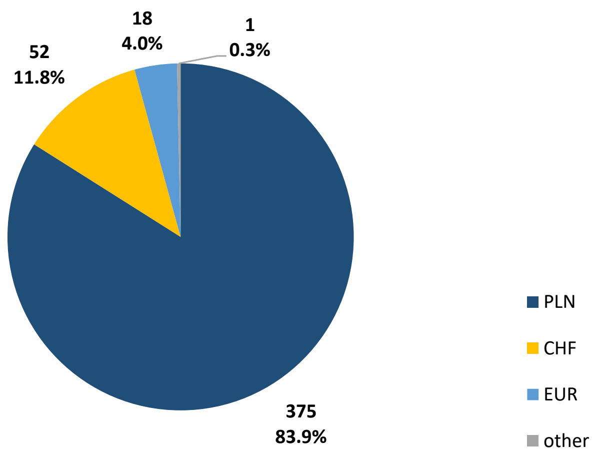
5.1.2.1. Housing loans to households

This sub-section contains information based on a survey regarding housing loans to households. The information serves as a supplement to the information presented above, obtained as part of mandatory reporting. 27 credit institutions (commercial banks and branches of credit institutions) took part in the survey.

Size and structure of the portfolio

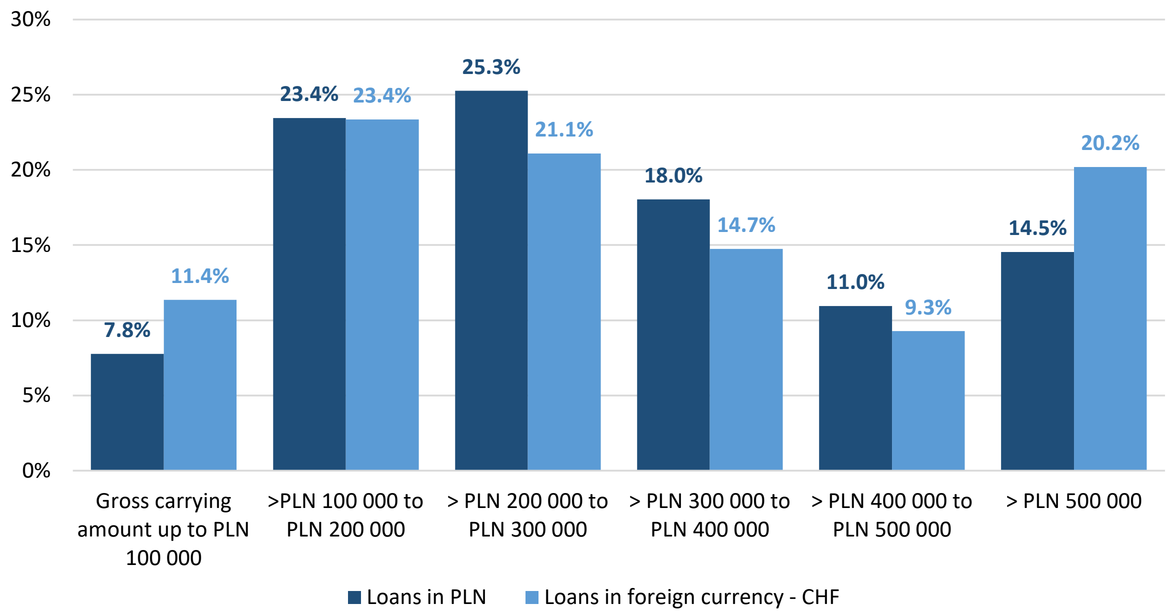
The gross carrying amount of the portfolio of housing loans to households stood at PLN 446.2 billion at the end of 2022 and their number was 2.32 million. Compared to the end of 2021, both values decreased, by 8.0% from PLN 485.0 billion and by 5.9% from 2.47 million, respectively. PLN loans accounted for 83.9%, and CHF loans – for 11.8%, of the gross carrying amount of the housing loan portfolio.

Diagram 24 Structure of the housing loan portfolio by currency of credit at the end of 2022 (the gross carrying amount in PLN billion, share by gross carrying amount)



At the end of 2022, the average gross carrying amount of a loan in CHF was PLN 173 100 and a loan in PLN was PLN 193 000. The share of loans with a gross carrying amount of over PLN 500 000 is higher for loans in CHF than for loans in PLN. However, the share of high-value CHF loans in the total CHF loan portfolio decreased in 2022, following the transfer of the portfolio of foreign-currency housing loans of one bank to a residual entity, which was not covered by the survey.

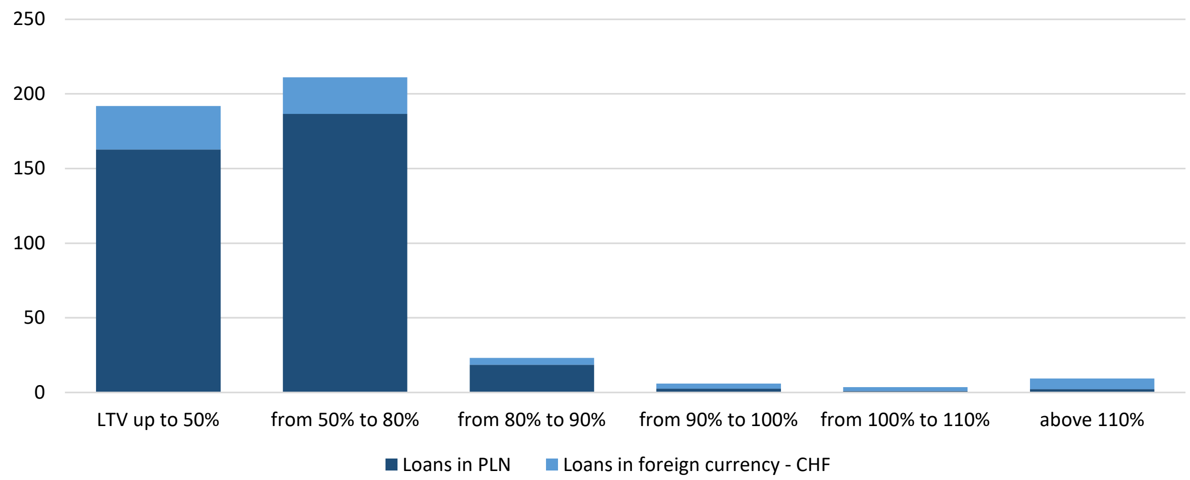
Diagram 25 Breakdown of housing loans in PLN and CHF in relation to the gross carrying amount of loans on the balance sheets of banks at the end of 2022. The breakdown is presented according to the share of loans from a given range for all housing loans in PLN and CHF, respectively (share by gross carrying amount)



Loan-to-Value (LTV)

Loans with LTV of over 80% account for 90.6% of the housing loan portfolio: 93.5% of the PLN housing loan portfolio and 74.9% of the foreign-currency housing loan portfolio (the share according to gross carrying amount). 13.6% of foreign-currency housing loans are loans with LTV of over 100%. For loans in PLN, the same ratio is only 0.8%.

Diagram 26 Breakdown of housing loans in PLN and foreign currencies in relation to the LTV ratio by gross carrying amount at the end of 2022 (PLN billion)



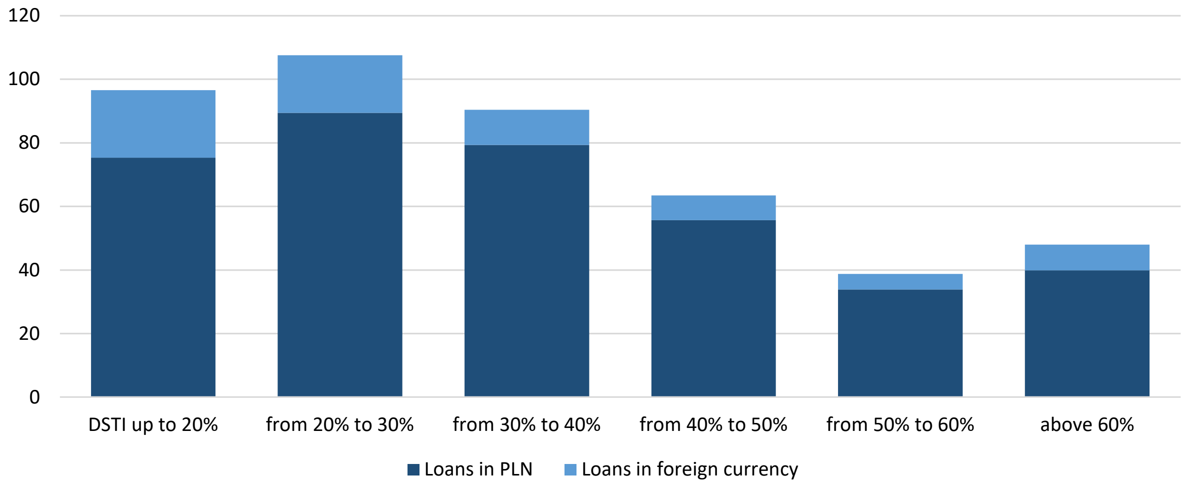
The average LTV for housing loans in the banking sector weighted by the gross carrying amount of those loans at each bank at the end of 2022 was 55.6%.

DSTI

DSTI (Debt-Service-to-Income) is a ratio of the monthly value of all repayments of credit instalments to the monthly net income of households which determines what proportion of income is allocated every month for the repayment of debt (excluding credit on a credit card, in a line of credit or in a current account). DSTI considers not only the expenditure related to the handling of a given home loan but also all other credit charges.

The median DSTI at the end of 2022 was between 20% and 30%.

Diagram 27 Breakdown of housing loans in PLN and foreign currencies in relation to the DSTI ratio by gross carrying amount at the end of 2022 (PLN billion)



The average DSTI ratio weighted by the gross carrying amount of housing loans at each bank was 35.3% at the end of 2022. The average values of DSTI for customers with a housing loan in PLN were close to the DSTI values for customers with a loan in a foreign currency.

Additional characteristics

Loans maturing at the retirement age of the borrower accounted for 46.8% of the housing loan on the balance sheets of the banks surveyed. Among the housing loans granted in 2022, the share of those loans was lower and amounted to 44.6%. The gross carrying amount of the loans maturing at the retirement age of the borrower was PLN 208.8 billion at the end of 2022.

The survey also explored the level of living expenses adopted by banks in the creditworthiness assessment for loans granted in 2022. In the group of the banks surveyed, 33.9% of housing loans (the share according to gross carrying amount) were granted assuming the living expenses at the level of the minimum subsistence figure or lower, and 65.6% of loans were granted assuming that the living expenses at the time of granting the loan did not exceed 1.5 times the minimum subsistence figure.

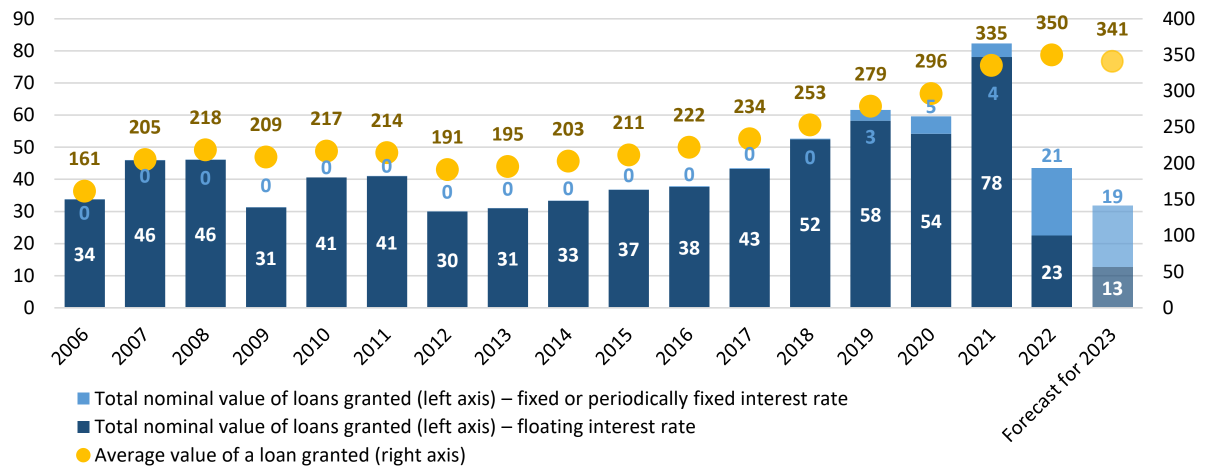
Credit currency conversion

At the end of 2022, the number of loans converted from foreign currencies to the Polish currency stood at 25 600 and their gross carrying amount was PLN 3.5 billion (these values refer to the loans on the balance sheets of the banks surveyed as at the end of 2022, including the loans converted under a settlement agreement). 24% of loans converted from a foreign currency to PLN (the share according to gross carrying amount) are the loans classified as non-performing/impaired loans (as at the date of the currency conversion).

Lending activity in 2022

In 2022, banks granted 124 400 housing loans of a total nominal value of PLN 43.5 billion. The share of loans with periodically fixed interest rate in the total nominal value of loans granted in 2022 was 48.2%.

Diagram 28 Total nominal value of loans (PLN billion) and average value of a loan (PLN thousand) granted in the years 2006–2022 and the forecast for 2023



In 2022, with the increase in interest rates, the demand for credit declined substantially. Each quarter was marked by a decline in the number of credit applications and the total nominal value of loans applied for, as compared to the previous quarter.

Diagram 29 Floating-rate housing loans – demand and supply, nominal value (PLN billion), percentage share in the value of loans applied for

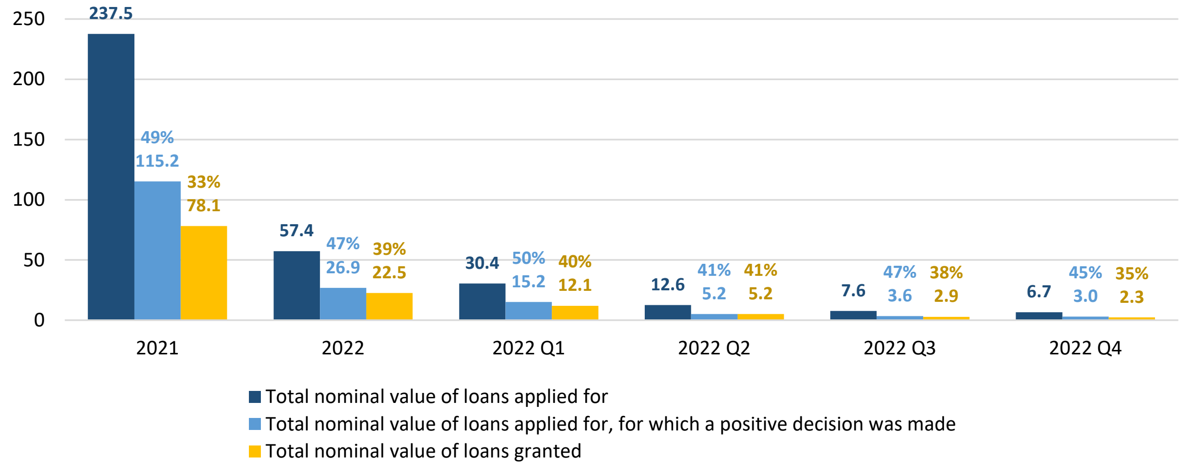
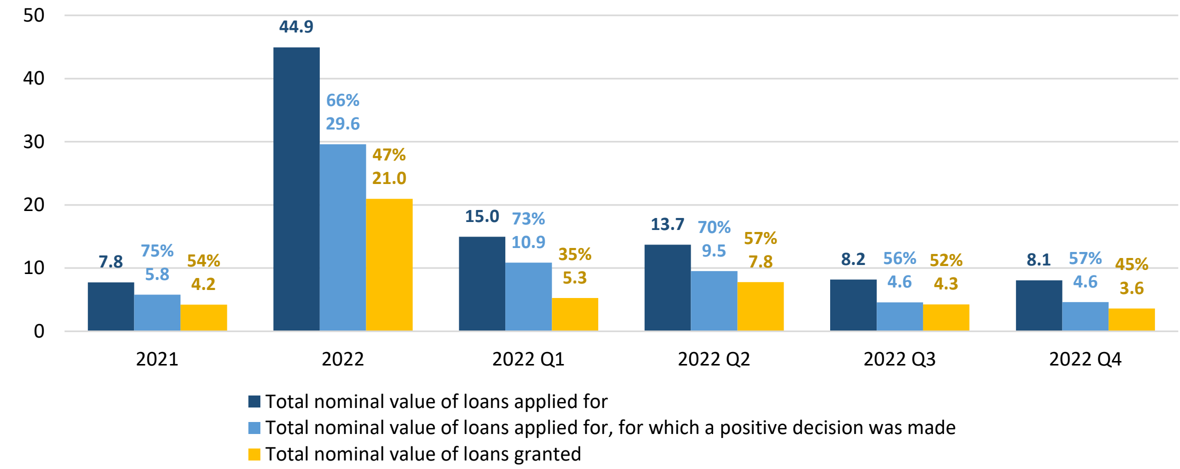


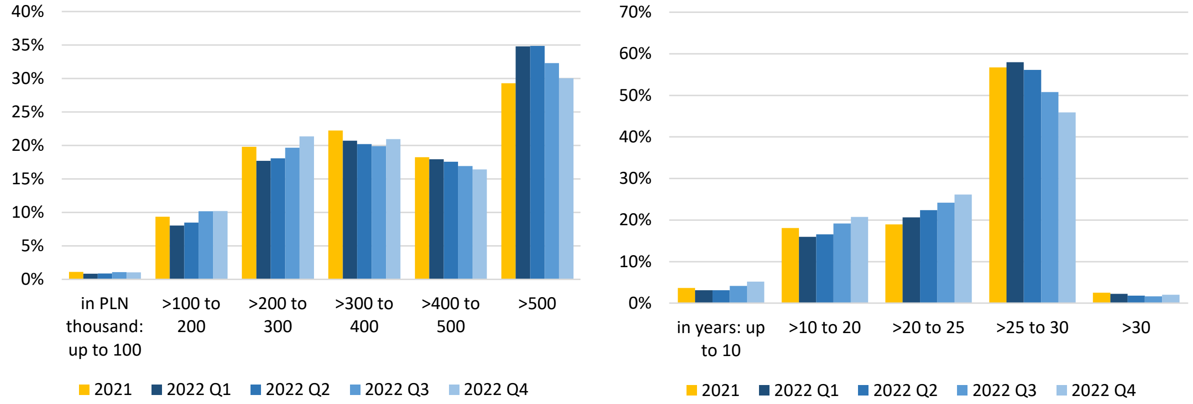
Diagram 30 Housing loans based on a periodically fixed rate – demand and supply, nominal value (PLN billion), percentage share in the value of loans applied for



In 2022, borrowers' interest in loans with periodically fixed interest rate reached a peak. From the second quarter, the value of granted loans with periodically fixed interest rate exceeded the number of loans with a floating interest rate granted in the same period.

In the first quarter of 2022, there was an increase in the share of loans with high nominal value (above PLN 500 000) in the total value of all housing loans granted in that quarter.

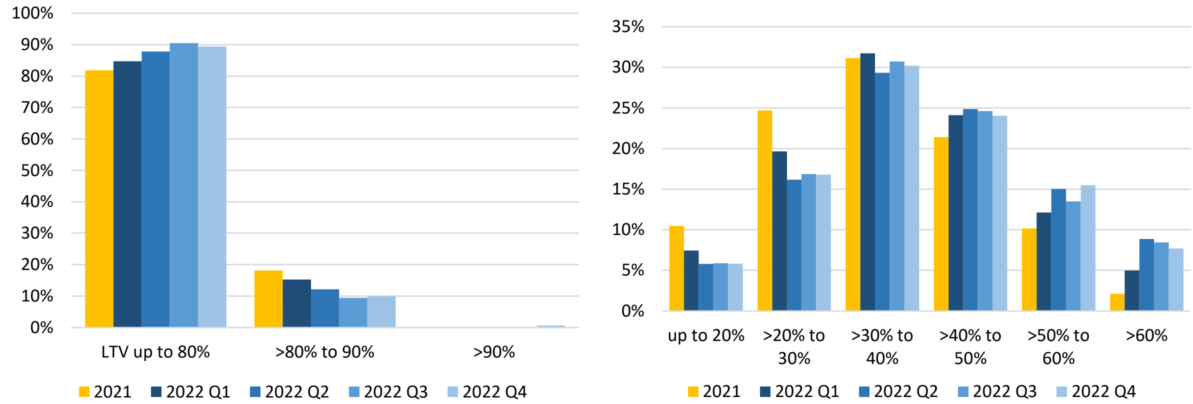
Diagram 31 Breakdown of the total contract value of loans granted in 2022 and 2021 (%) by nominal value of the loan granted (the left diagram) and by initial lending period (the right diagram)



Most banks' policies for granting housing loans were more prudent in subsequent quarters of 2022 than in the first quarter of 2022 (in terms of the loan-to-value ratio). Loans with LTV above 80% at the moment of disbursement accounted for 12.8% of the total nominal value of loans granted in 2022. The share of those loans decreased as compared to the loans granted in 2021 from 18.2%.

In 2022, the share of granted loans with a high DSTI ratio increased as compared to 2021. Most banks relaxed their 2022 policy for granting housing loans: the reduced creditworthiness caused by an increase in interest rates was partly compensated by the banks accepting a higher DSTI ratio.

Diagram 32 Breakdown of the total contract value of loans granted in 2022 and 2021 (%) by LTV (the left diagram) and by DSTI (the right diagram)



In the group of the banks surveyed, for floating-rate loans, the average margin (above WIBOR) weighted by the nominal value of loans granted in 2022 was 2.01% (2.21% in 2021), and the average commission was 0.13% (0.18% in 2021). For loans with a periodically fixed interest rate, the average interest rate was 7.22% (3.79% in 2021), and the average commission was 0.06% (0.10% in 2021).

Diagram 33 Nominal value (PLN billion) and average margin for floating-rate loans granted from January to December 2022

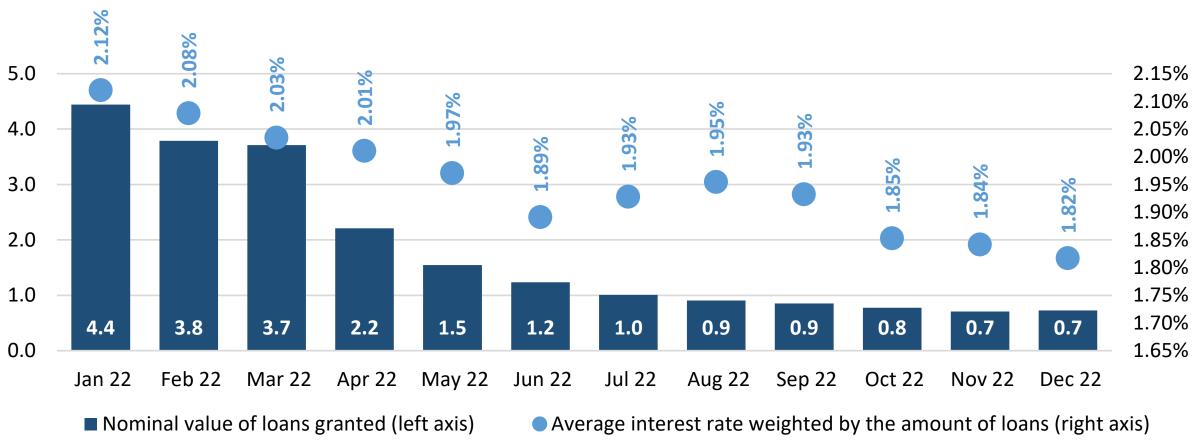
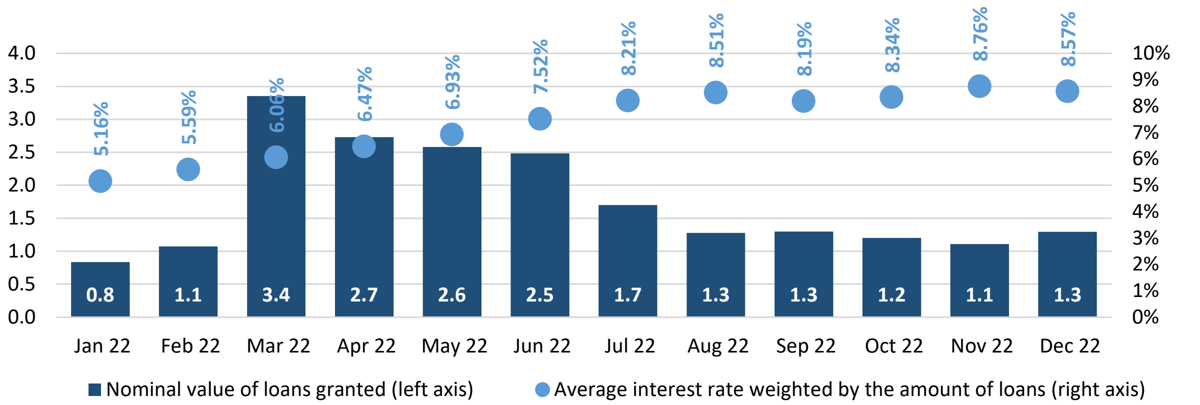
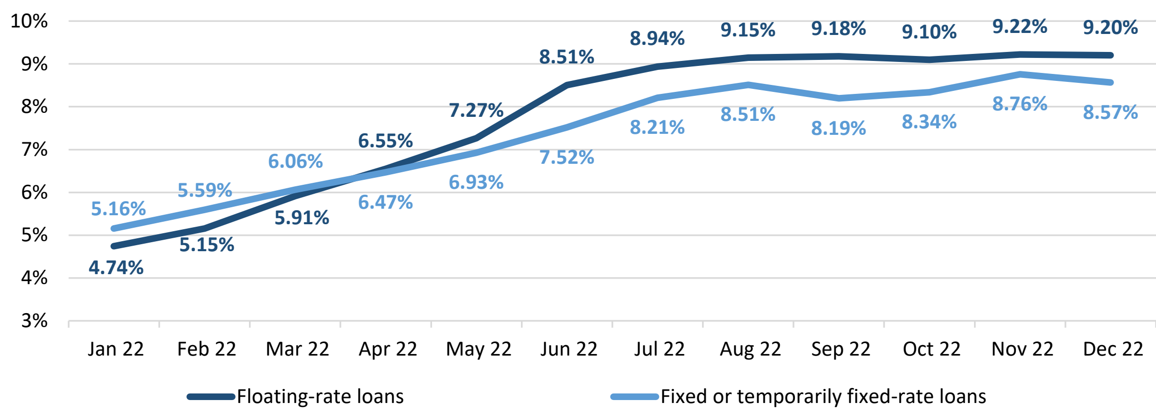


Diagram 34 Nominal value (PLN billion) and average interest rate on loans with periodically fixed interest rate granted from January to December 2022



From April 2022, interest rate on loans granted on a periodically fixed interest rate was lower than for loans with a floating rate at the time of granting.

Diagram 35 Average interest rate at the time of granting the loan, weighted by the nominal value of the loans granted



The loans with a periodically fixed interest rate gained importance in 2022. Their share in the gross carrying amount of housing loans offered by the banks surveyed is 12.2% (an increase from 2.75% at the end of 2021). The gross carrying amount of those loans at the end of 2022 was PLN 54.3 billion (PLN 13.3. billion at the end of 2021). The most frequent duration of the periodically fixed interest rate offered is 5 years.

5.1.2.2. Legal risk arising from the portfolio of foreign-currency mortgage loans

The portfolio of foreign-currency loans has been the main risk factor in the banking sector for several years now, materially affecting the financial situation of banks. This applies mostly to loans denominated in or indexed to Swiss franc. The number of court cases for such loans and the value of claim have been growing steadily, and many of those cases are concluded with the invalidation of the credit agreement. The UKNF is monitoring the impact of legal risk on the situation of each bank, for example by conducting a survey on the legal risk arising from the portfolio of foreign-currency loans which involves 16 banks and 2 branches of credit institutions. The results of the survey are presented below.

The value of claim in 2022 increased in the sector by PLN 15.6 billion (+77.3% in relation to the value at the end of 2021) and reached PLN 35.8 billion at the end of 2022, while the number of loans in dispute increased by 32 600 (an increase of 44.6% *per annum*) up to the total number of 105 700 (these data concern both loans recognised in the banks' balance sheets as well as off-balance-sheet loans, *inter alia* loans repaid). The balance sheets of banks and branches of credit institutions included, at the same time, a total of 310 600 housing loans for households, whose loans were linked to Swiss franc.

The legal risk arising from the portfolio of foreign-currency mortgage loans increased following the expected 2023 ruling of the European Court of Justice in proceedings concerning a question referred for a preliminary ruling regarding the right of a bank to demand remuneration for the use of capital provided to a consumer in the event of annulment of a credit agreement and mutual reimbursement of performances (Case C-520/21).

In response to an increase in legal risk, most banks increased the provisions for such risk: the value of such provisions in 2022 increased by PLN 14.1 billion (+61.7% as compared to the end of 2021) up to PLN 37.1 billion. The provisions were also created following the intensification of the process of offering settlement agreements to borrowers.

Diagram 36 Number of loans in dispute – all banks

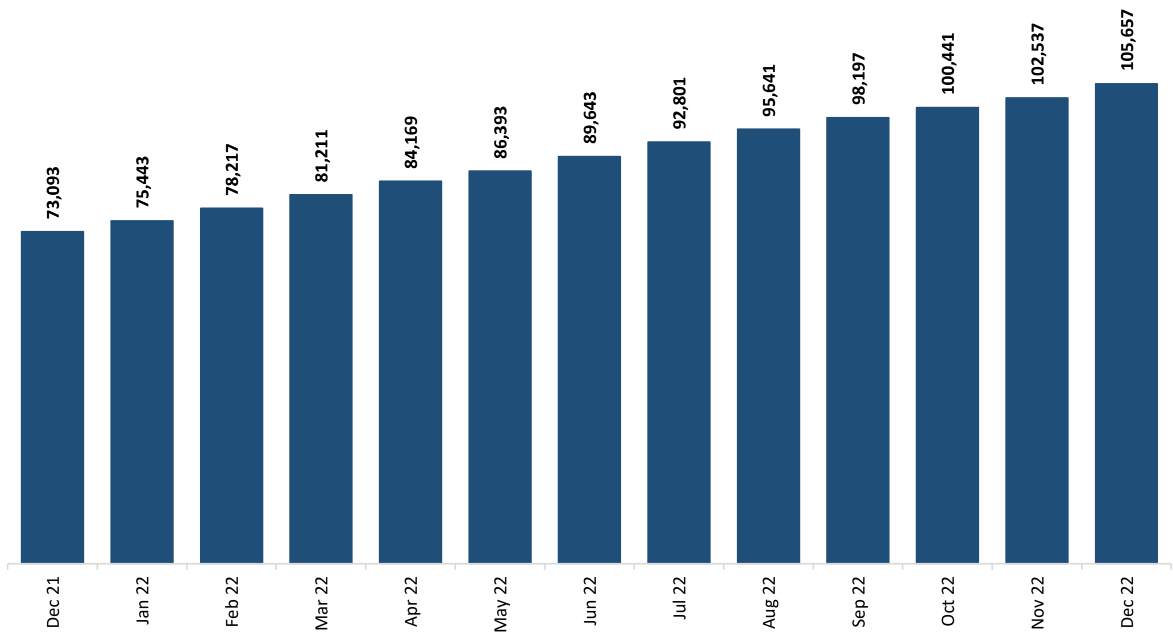
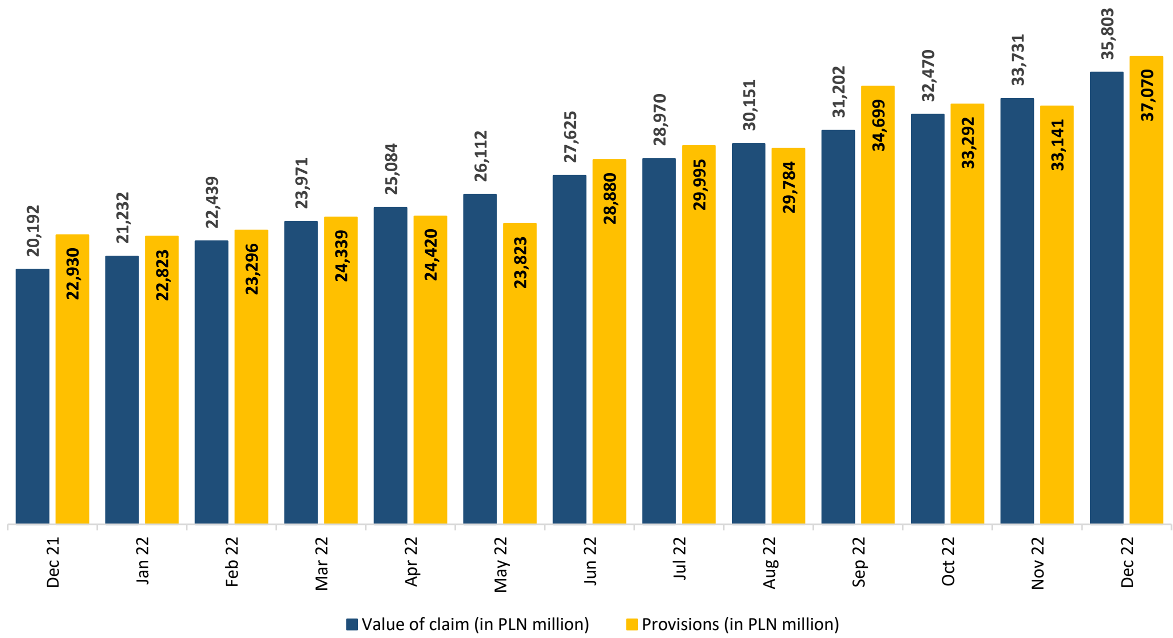
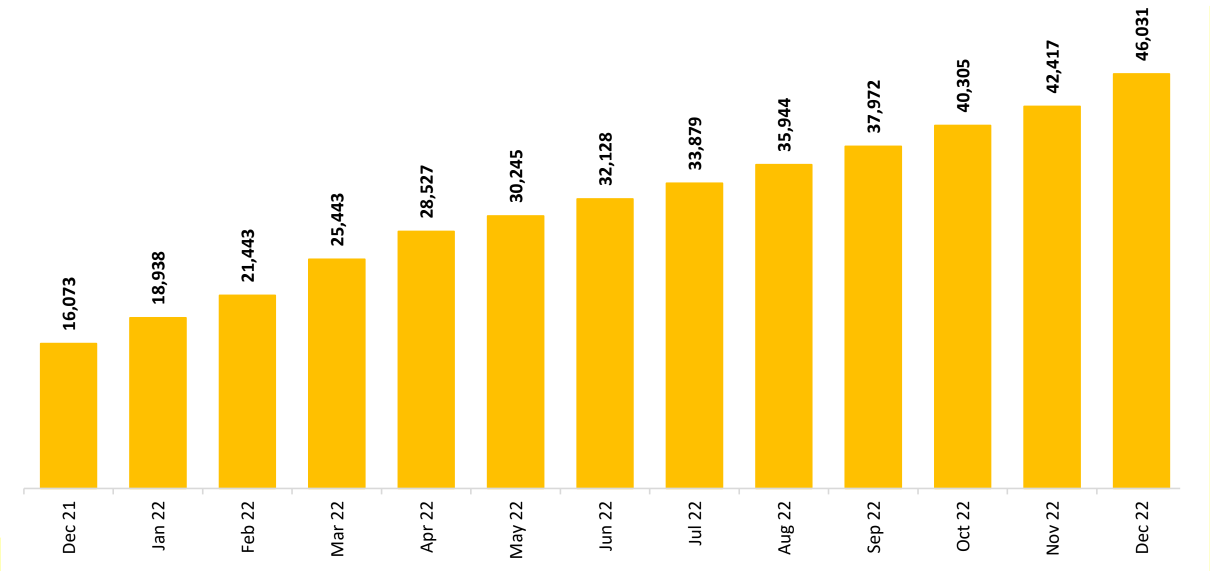


Diagram 37 Value of claim and value of provisions – all banks



In making efforts to reduce the legal risk arising from foreign-currency housing loans, in December 2020 the Chair of the KNF Board presented a proposal for settlement agreements as an alternative to litigation. Mediations between banks and borrowers are conducted through the Arbitration Court attached to the KNF Board. In 2022, several banks were actively offering and entering into such settlement agreements with customers. A few other banks offered and entered into a settlement on their own terms. By the end of 2022, banks had entered into 46 000 settlement agreements for a total value of PLN 8.1 billion.

Diagram 38 Number of settlement agreements concluded – all banks



5.1.2.3. Consumer loans to households

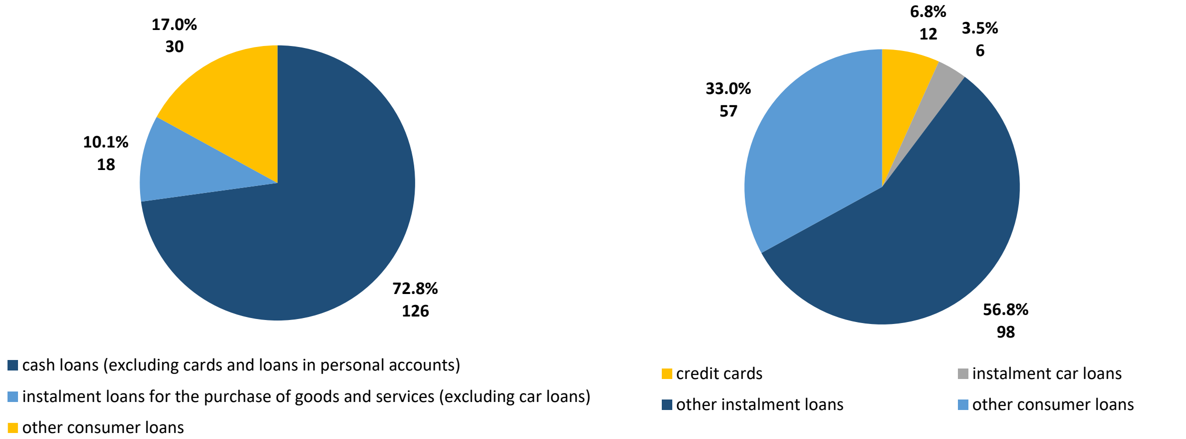
This sub-section contains information based on a survey regarding consumer loans to households. 26 credit institutions (banks and branches of credit institutions) took part in the survey.

Size and structure of the portfolio

The gross carrying amount of the portfolio of consumer loans in the assets of banks participating in the survey was PLN 173.3 billion at the end of 2022. Compared to the end of 2021, there was an increase in the value of the portfolio by PLN 4.9 billion (+2.9%) for the same group of banks.

The most significant item was cash loans (excluding cards and loans in personal accounts) accounting for 72.8% of the gross carrying amount of the consumer credit portfolio. According to the FINREP classification, the largest share was represented by instalment loans (including car loans) – 60.3%.

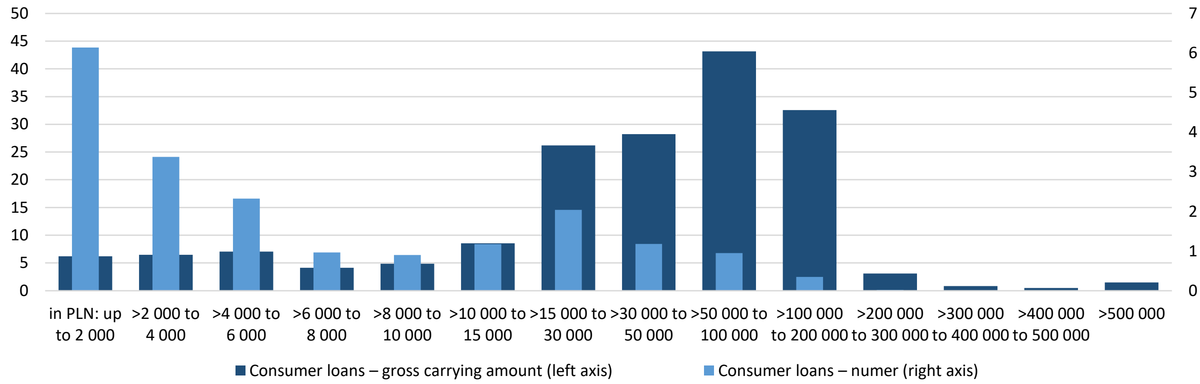
Diagram 39 Structure of the portfolio of consumer loans at the end of 2022, gross carrying amount (PLN billion), share in total consumer loans by gross carrying amount (%); Classification according to FINREP (the right diagram)



The decrease in the gross carrying amount of consumer loans at selected banks was determined by the sale of a part of the portfolio or by the transfer of a part of the portfolio to off-balance-sheet records. In 2022, loans with total value of PLN 3.5 billion were written off the banks' balance sheets due to sale, and loans with total value of PLN 0.6 billion were written off due to the transfer to off-balance-sheet records.

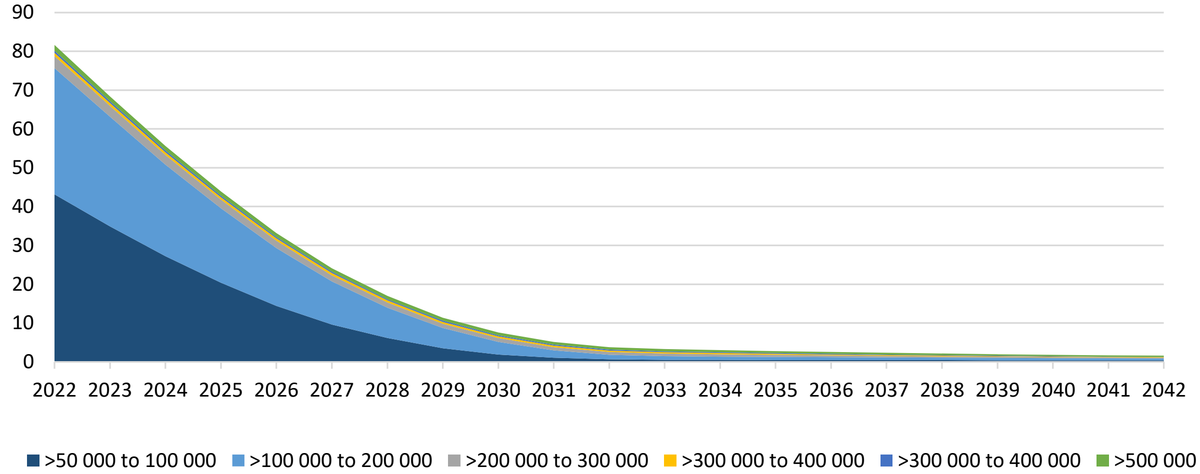
In terms of figures, the banks' balance sheets were dominated by loans with nominal value of up to PLN 2 thousand at the time of granting, with the highest gross carrying amount of loans with a nominal value between PLN 50 thousand and PLN 100 thousand.

Diagram 40 Gross carrying amount (PLN billion) and number (million) of consumer loans by nominal value of the loan at the time of granting



According to the original repayment schedules, the gross carrying amount of the portfolio of high-value consumer loans as at the end of 2022 will halve by 2026. The timing of repayment of that portfolio is shown in the diagram below.

Diagram 41 Timing of repayment of the consumer credit portfolio as at the end of 2022 with an initial value of more than PLN 50 000, on the assumption that repayment takes place in accordance with the schedule The timing concerns the gross carrying amount (PLN billion) broken down by initial nominal value of loans (PLN).



Quality of the consumer credit portfolio

Stage 3 loans at the end of 2022 accounted for 8.8% of the total gross carrying amount of consumer loans (9.6% at the end of 2021). Loans with no delay in repayment accounted for 87.7% of the portfolio (87.4% at the end of 2021). The remaining part of the portfolio (3.5%) were loans with a delay in repayment but without recognised impairment.

Table 20 Gross carrying amount of consumer loans, Stage 3 consumer loans (PLN billion) and share of Stage 3 loans in consumer loans (by gross carrying amount) by initial period of repayment and nominal value of the loan at the time of granting

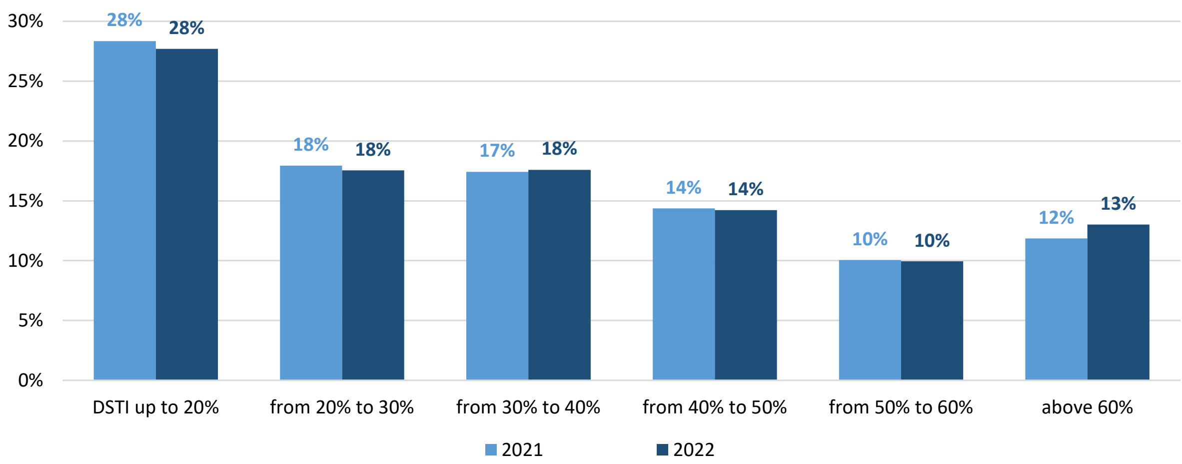
Initial period of repayment of the loan at the time of granting	Initial nominal value at the time of granting (PLN)					
	up to 8 000	**>8 000 to 15 000**	**>15 000 to 30 000**	**>30 000 to 50 000**	**>50 000 to 100 000**	**>100 000**
Gross carrying amount of consumer loans						
up to 2 years	11.50	3.58	3.19	1.56	1.24	0.66
> 2 years to 5 years	7.61	6.44	12.39	10.66	9.12	2.59
>5 years to 8 years	1.62	1.86	6.48	9.41	15.07	8.57
above 8 years	3.12	1.49	3.77	6.82	17.80	26.79
Gross carrying amount of non-performing/impaired consumer loans						
up to 2 years	0.55	0.25	0.31	0.24	0.37	0.35
> 2 years to 5 years	0.41	0.47	0.94	0.79	0.71	0.47
>5 years to 8 years	0.12	0.17	0.50	0.70	0.99	0.78
above 8 years	0.16	0.10	0.30	0.60	1.50	3.51
Share of non-performing/impaired loans in all consumer loans (according to the gross carrying amount)						
up to 2 years	5%	7%	10%	15%	30%	53%
> 2 years to 5 years	5%	7%	8%	7%	8%	18%
>5 years to 8 years	8%	9%	8%	7%	7%	9%
above 8 years	5%	7%	8%	9%	8%	13%

The gross carrying amount of Stage 3 loans on the balance sheets of the banks surveyed was PLN 15.3 billion at the end of 2022 (PLN 17.0 billion at the end of 2021), of which PLN 6.8 billion were high-value loans (with a nominal value of more than PLN 50 000) with a long initial period of repayment (more than 5 years).

DSTI

At the end of 2022, the consumer credit portfolio was dominated by loans for which DSTI did not exceed 20%. In 2022, no major changes were noted in relation to the DSTI ratio of consumer loans in comparison to 2021.

Diagram 42 Breakdown of the gross carrying amount of consumer loans by DSTI at the end of 2021 and 2022

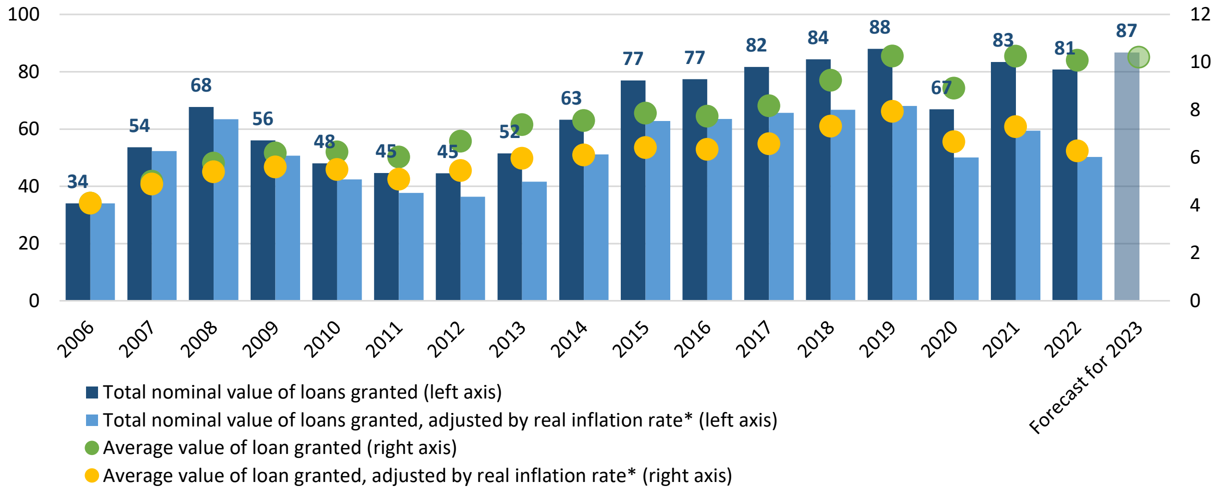


The value of consumer loans for which the DSTI ratio estimated for the end of 2022 exceeded 50% amounted, for the entire group of banks, to approx. PLN 39.6 billion, which accounts for 22.9% of the value of all consumer loans.

Lending activity in 2022

The total nominal value of consumer loans granted in 2022 amounted to PLN 80.7 billion (a decrease of PLN 2.7 billion and 3.3% YoY). The average nominal value of a consumer loan granted in 2022 decreased slightly in relation to the average value of a loan granted in 2021 and amounted to PLN 10 100.

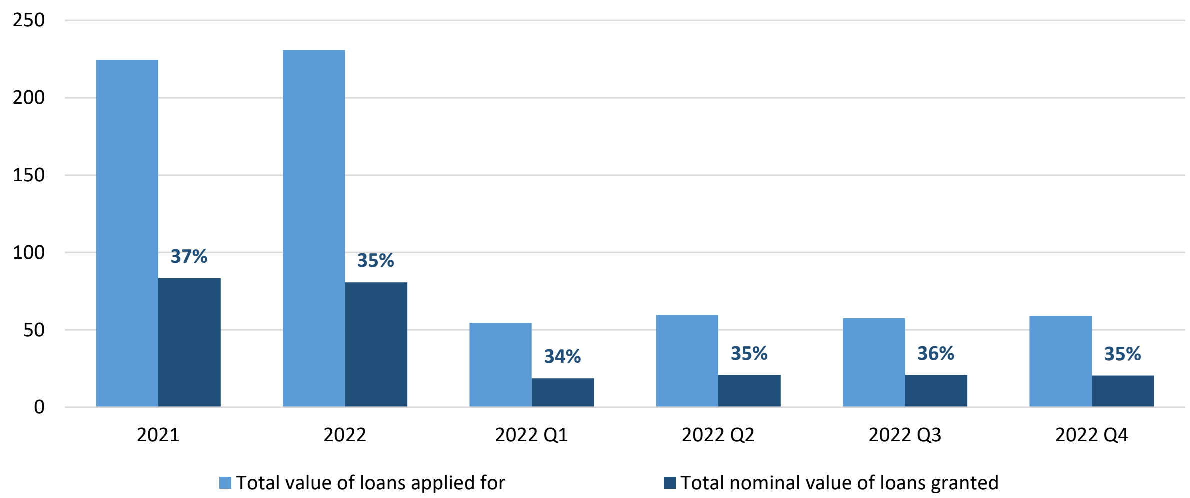
Diagram 43 Total nominal value of loans granted (PLN billion), average value of a loan granted (PLN thousand) in the years 2006–2022 and the forecast for 2023



* Annual consumer price indices (source: Statistics Poland), price index (2006=100).

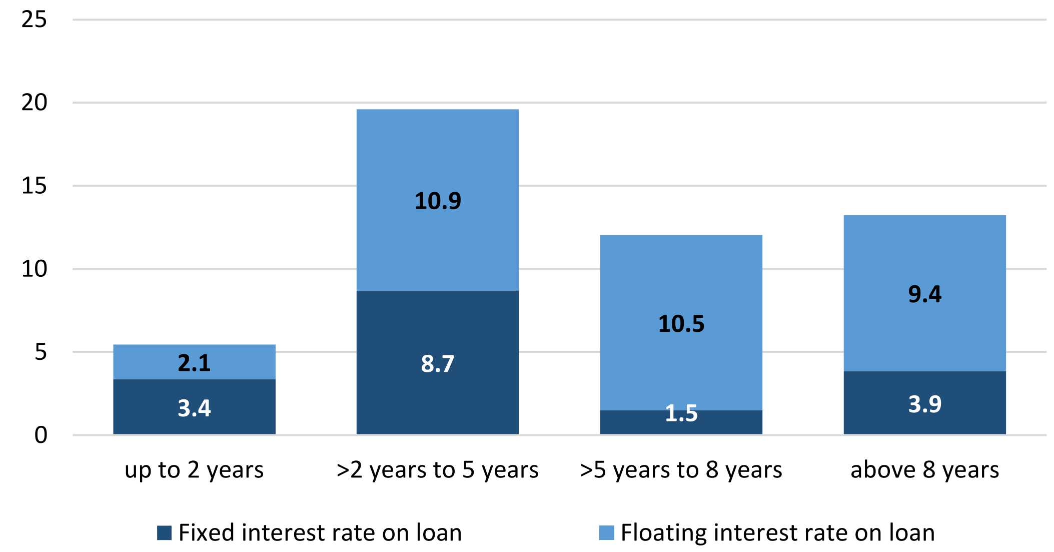
The demand for consumer loans in 2022 was higher than in 2021 – the nominal value of loans applied for increased by 2.8% YoY. The ratio of the value of loans granted to the value of loans applied for fell by 2.2 pp. YoY.

Diagram 44 Consumer loans – demand and supply, nominal value (PLN billion), percentage share of loans granted in the value of loans applied for



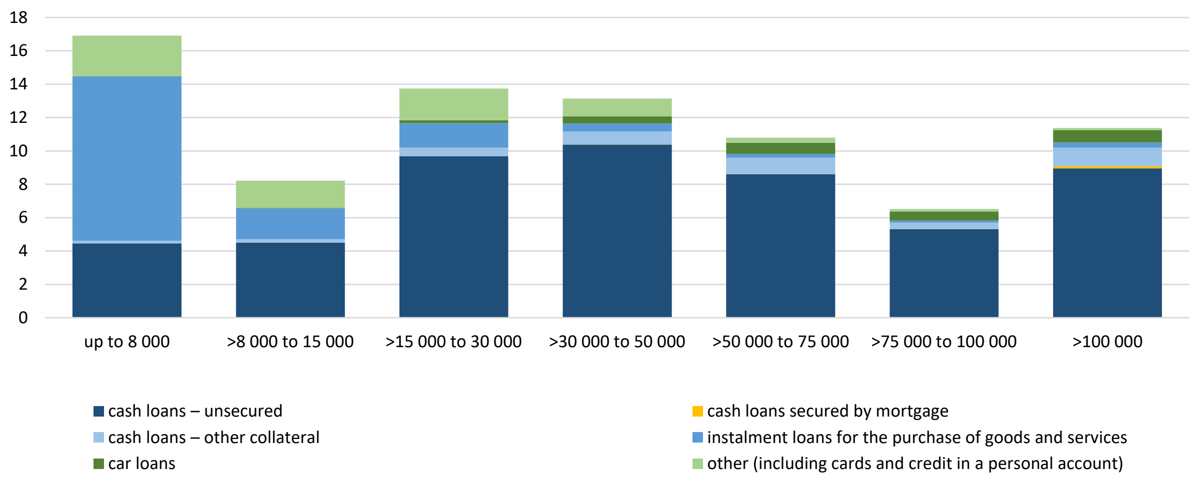
68% of the loans granted in 2022 (share by nominal value) were floating-rate loans (68% in 2021). A larger share of fixed-rate loans is present among loans with a shorter initial term.

Diagram 45 Nominal value (PLN billion) of fixed-rate and floating-rate loans granted in 2022 by initial term



Loans in an amount exceeding PLN 50 000 accounted for 35.6% of the total nominal value of all consumer loans granted in 2022 (+1.2 pp YoY).

Diagram 46 Total nominal value (PLN billion) of consumer loans granted in 2022 by nominal value of the loan (PLN)

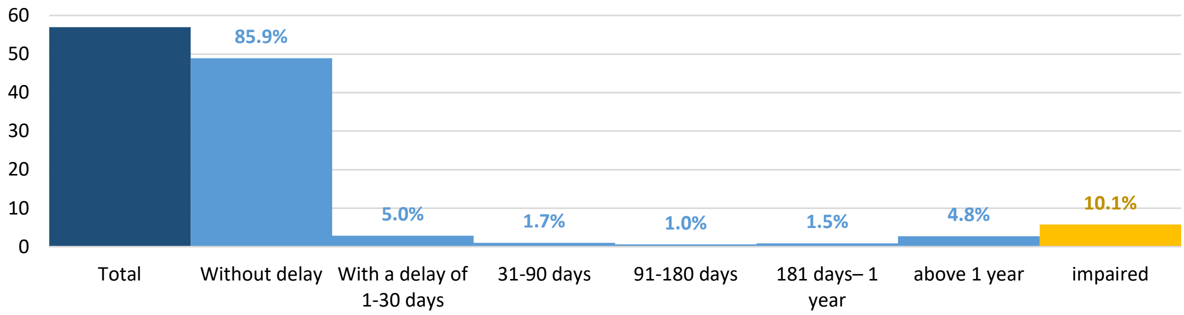


Debt consolidation loans

Consumer debt consolidation loans account for 32.9% of all consumer loans. Their gross carrying amount is PLN 57.0 billion, of which PLN 23.3 billion is a volume taken over from other banks and PLN 24.2 billion is the gross carrying amount of loans that arose in the process of consolidation, without the share of loans taken over from another bank.

The gross carrying amount of impaired debt consolidation loans is PLN 5.7 billion, which accounted for 10.1% of the value of the portfolio of debt consolidation loans. 85.9% of the value of the debt consolidation loans portfolio are loans with no delay in repayment.

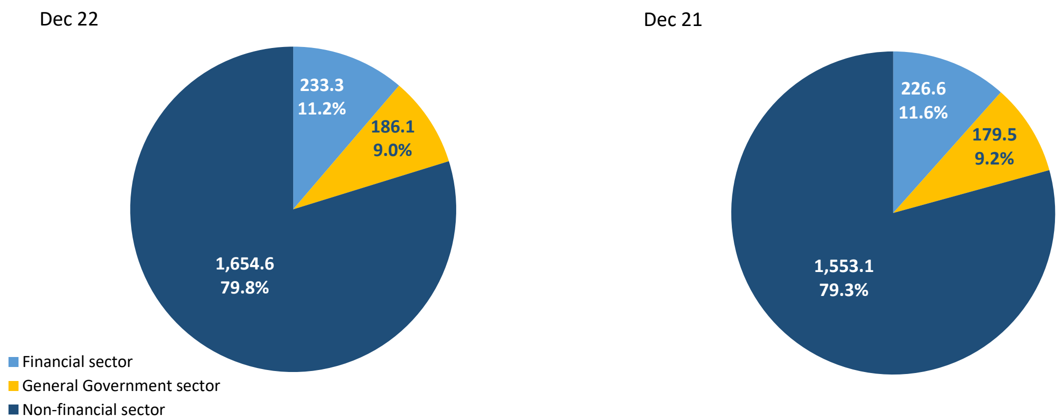
Diagram 47 Debt consolidation consumer loans, delays in repayment, gross carrying amount at the end of 2022 (in PLN billion)



5.2. Liabilities

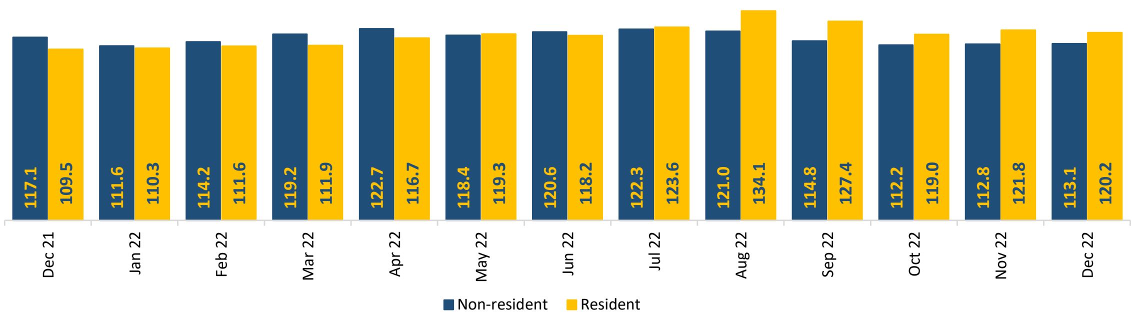
2022 was marked by a slight (0.5%) increase in the share of liabilities to the non-financial sector at the expense of the financial and general government sectors.

Diagram 48 Sector structure of liabilities on account of deposits and credit received (PLN billion)



Including blocked deposits, i.e. funds deposited at a reporting entity that the depositor cannot dispose of freely due to their allocation for certain purposes, for example to settle letters of credit, to safeguard against the risk of the reporting entity, etc.

Diagram 49 Deposits and loans received from the financial sector (PLN billion)



5.2.1. Deposits of the non-financial sector

In 2022, the value of deposits of the non-financial sector increased by 6.5% (or PLN 101.4 billion) YoY, and the largest annual increase in deposits occurred for commercial banks – by PLN 98.5 billion (or 7.1%).

Table 21 Deposits from the non-financial sector – sector structure

	Dec 20	Dec 21	Dec 22	YoY change 2022/2021	
	(PLN billion)			(PLN billion)	(%)
Deposits of the non-financial sector	1 434.9	1 549.4	1 650.7	101.4	6.54%
commercial banks	1 280.6	1 385.6	1 484.2	98.5	7.11%
cooperative banks	132.7	141.5	140.6	-0.9	-0.62%
branches of foreign banks	21.6	22.3	26.0	3.7	16.62%

The structure of deposits from non-financial sector is dominated by households and deposits in PLN. The structure is similar to the last year's structure.

Diagram 50 Deposits from the non-financial sector at the end of December 2022 (PLN billion)

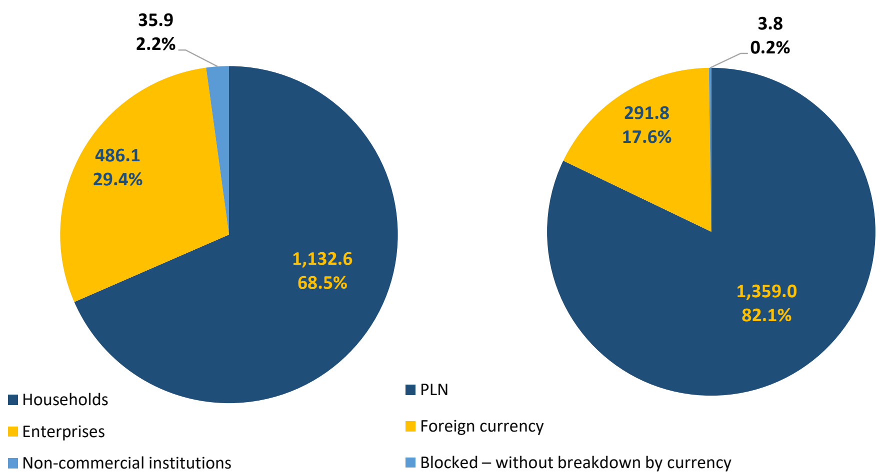


Table 22 Deposits from the non-financial sector – currency and term structure (excluding blocked deposits)

	Dec 20	Dec 21	Dec 22	YoY change 2022/2021	
	(PLN billion)			(PLN billion)	(%)
Households	**1 018.4**	**1 087.8**	**1 131.4**	**43.5**	**4.0%**
PLN	896.6	948.0	954.8	6.8	0.7%
Foreign currency	121.8	139.8	176.6	36.7	26.3%
Enterprises	**386.8**	**429.9**	**483.5**	**53.6**	**12.5%**
PLN	319.1	349.2	370.3	21.1	6.0%
Foreign currency	67.7	80.7	113.2	32.5	40.3%
Non-commercial institutions	**29.7**	**31.6**	**35.9**	**4.2**	**13.3%**
PLN	28.7	30.4	33.9	3.5	11.6%
Foreign currency	1.0	1.3	2.0	0.7	55.6%
Current deposits	1 136.4	1 289.4	1 151.1	-138.3	-10.7%
Term deposits	298.5	260.0	499.6	239.6	92.2%

In 2022, deposits of enterprises increased by 12.5% YoY (i.e. by PLN 53.6 billion), while deposits of households – by 4.0% (i.e. by PLN 43.5 billion). The volume of term deposits increased over the year by 92.2% to PLN 499.6 billion, while current deposits decreased over the year by 10.7% to PLN 1 151.1 billion. Foreign-currency deposits of both enterprises and households increased relatively faster (by 40.3% and 26.3%) than PLN deposits (6.0% and 0.7%), also due to the depreciation of the Polish currency.

Diagram 51 Current and term deposits (PLN billion)

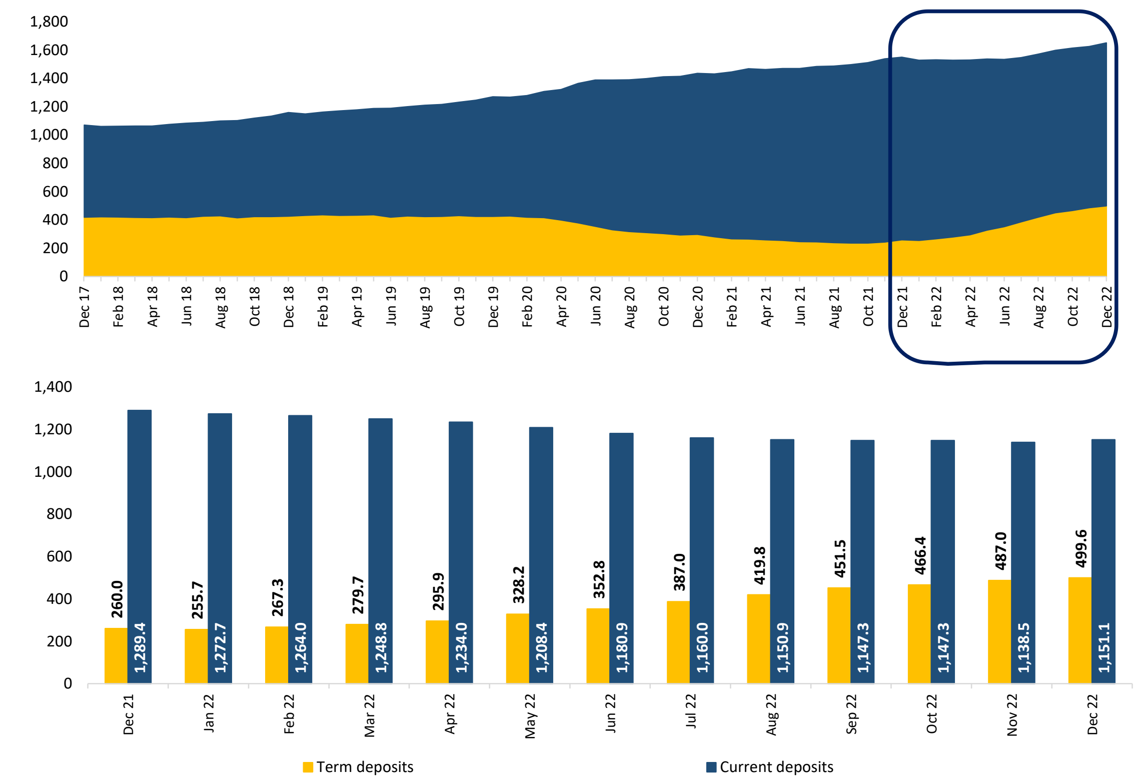


Diagram 52 Deposits of households (PLN billion)

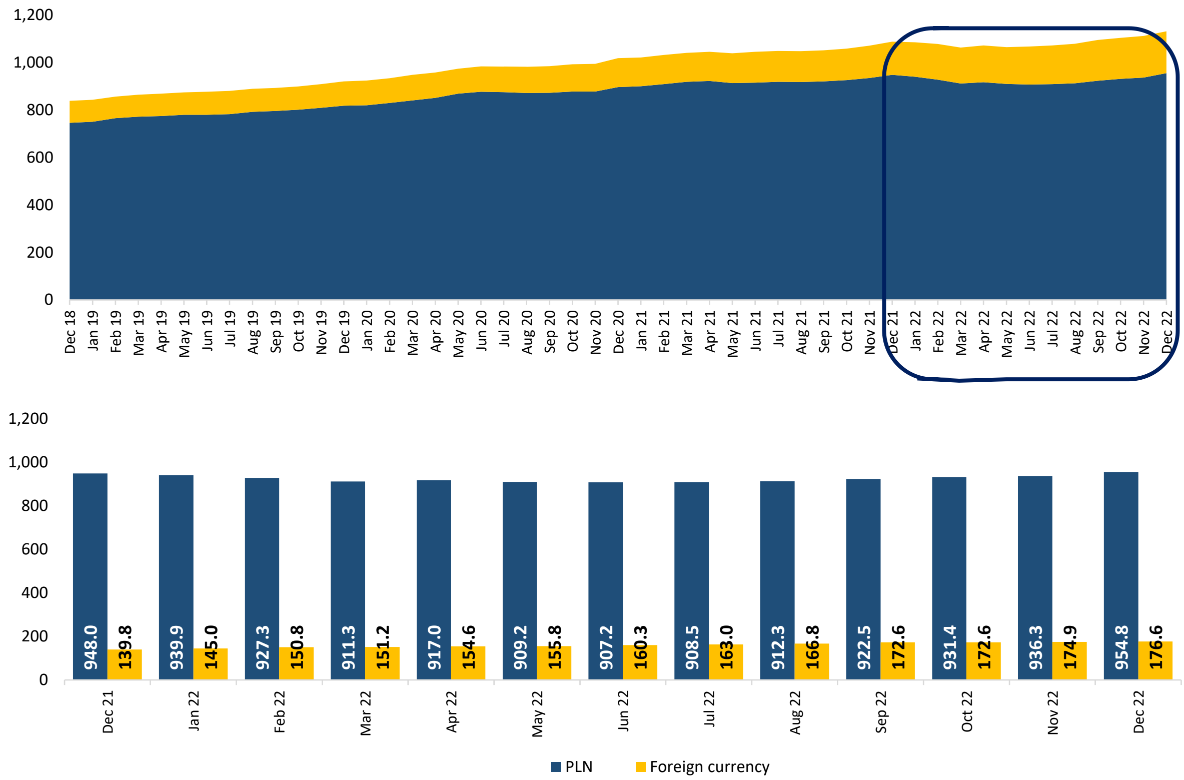
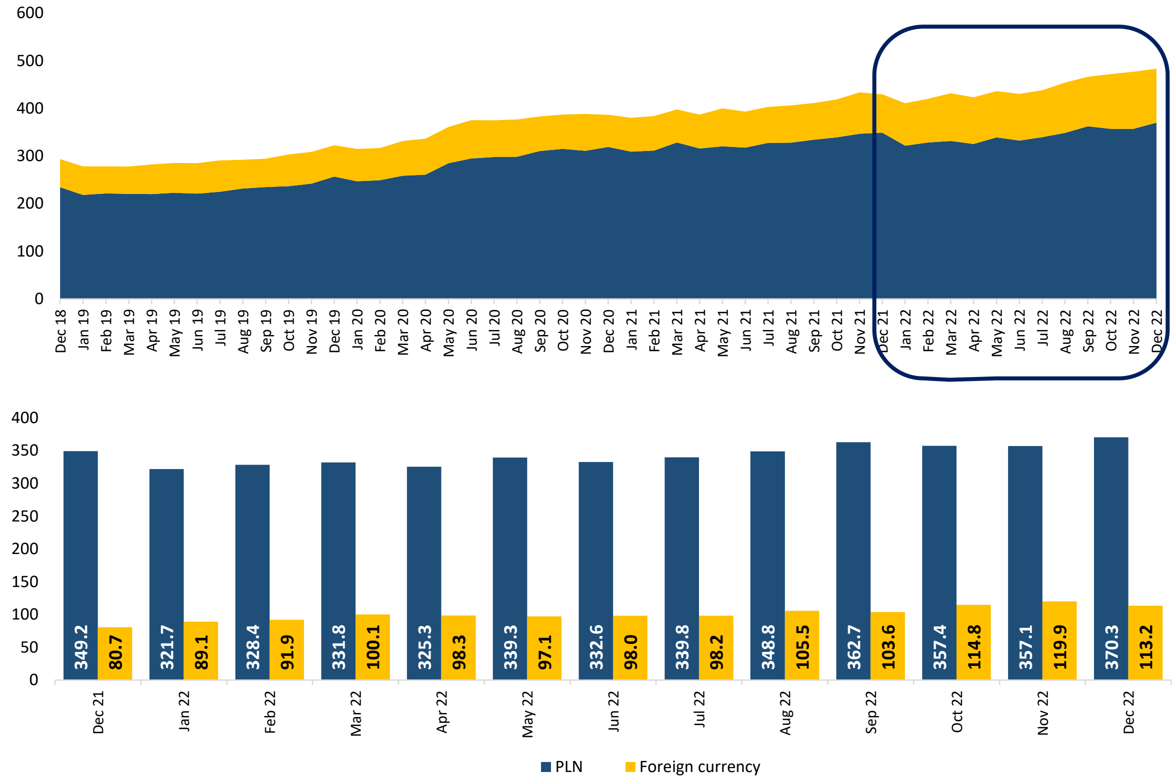


Diagram 53 Deposits of enterprises (PLN billion)



5.2.2. Interest rate on deposits

5.2.2.1. Private individuals

In April 2022, general interest rates began climbing (for term and current deposits). The rates on term deposits grew rapidly in June and July. As interest rates were rising, bank customers increasingly tended to change current deposits into term deposits.

The upward trend refers to the interest rate on new and renegotiated deposit agreements (according to data for the month reported by banks). The last quarter of 2022 was marked by a peak of interest rates on new and renegotiated agreements for a term of up to one month. In the second half of the year, new term deposits were characterised by materially lower interest rates than in May and June.

Diagram 54 Average interest rate offered to private individuals – with current deposits

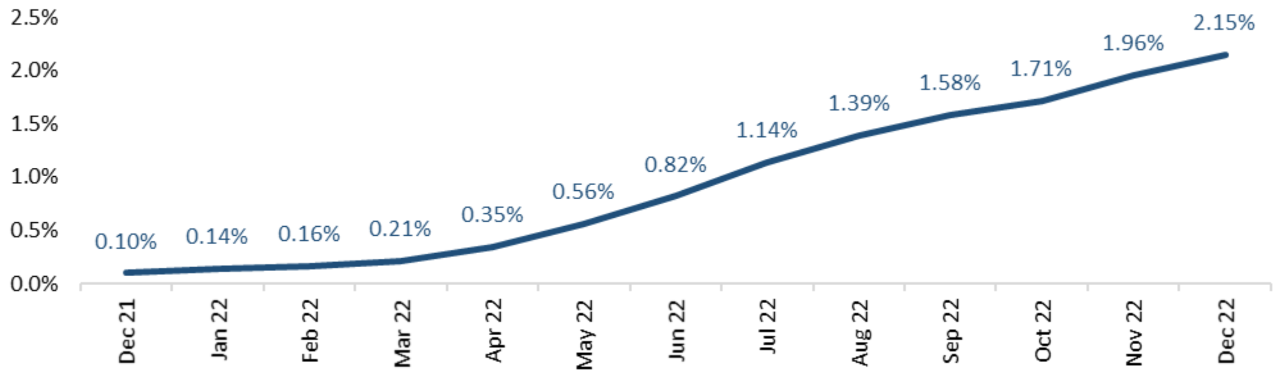


Diagram 55 Average interest rate offered to private individuals – without current deposits

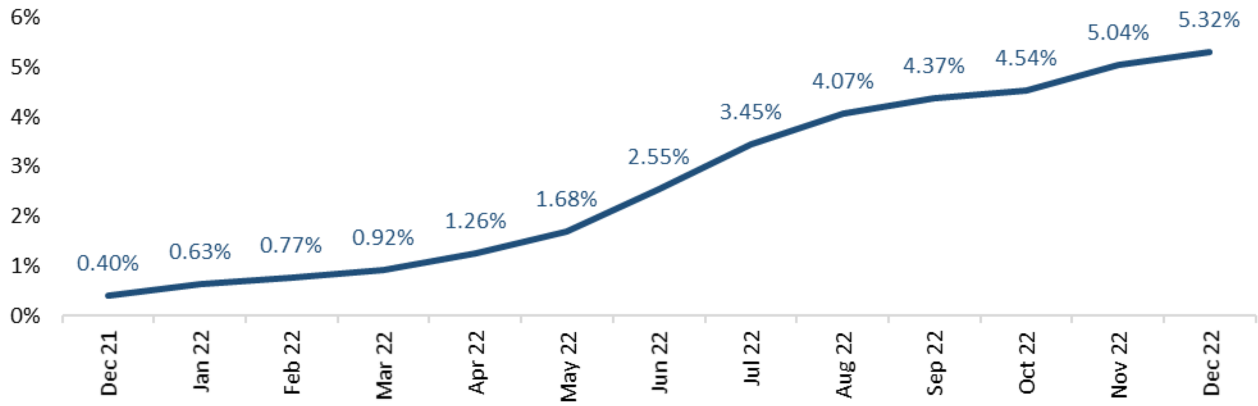


Diagram 56 Average interest rate offered to private individuals – new and renegotiated deposits in each reporting month

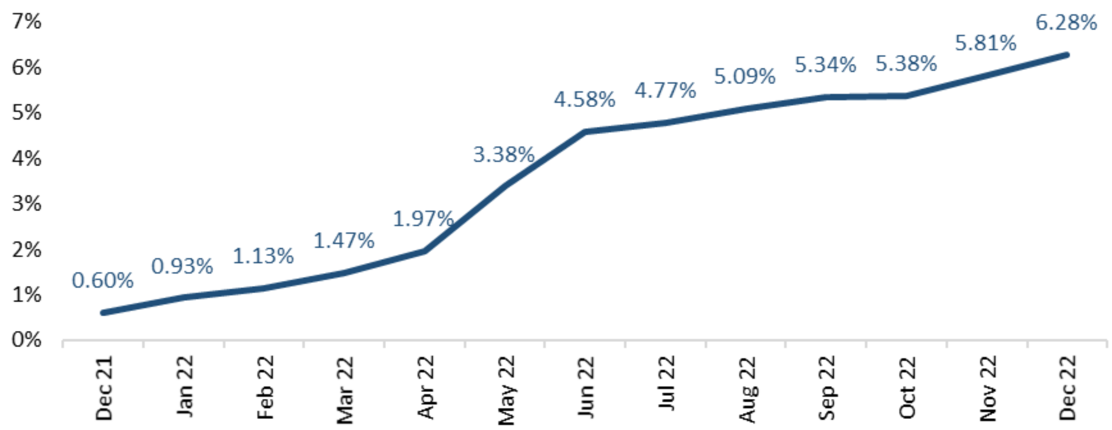
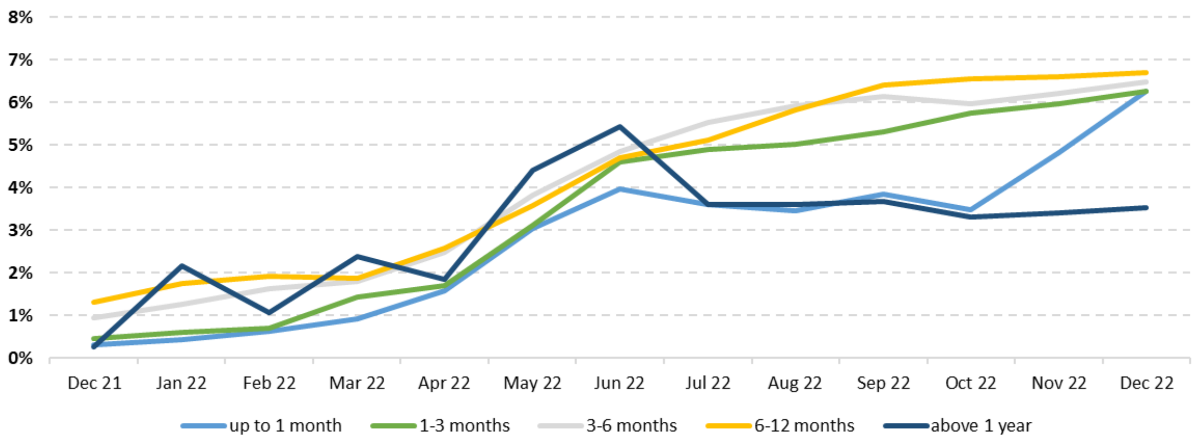


Diagram 57 Changes in interest rate over time by tenor – new and renegotiated agreements



5.2.2.2. Enterprises

In 2022, interest rate on all deposits (term deposits and current deposits) of enterprises was characterised by an upward trend, particularly strong in June and July. Interest rate on new and renegotiated deposit agreements stabilised from September to November, and fell in December.

A systematic increase in interest rate from April to August occurred for all tenors. From September, major fluctuations could be seen for agreements with a term exceeding one year. In the last quarter, rates increased considerably (by over 1.8 pp) for agreements with a term between 6 and 12 months.

Diagram 58 Average interest rate offered to enterprises – with current deposits

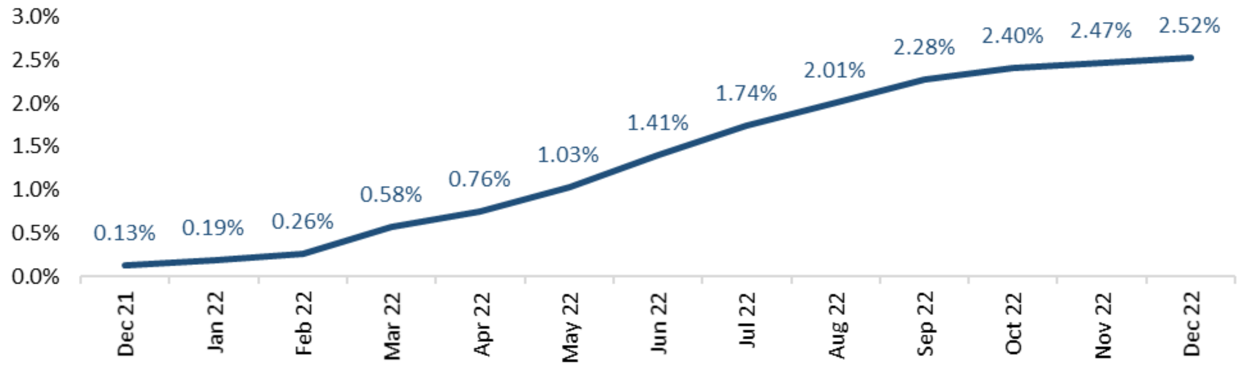


Diagram 59 Average interest rate offered to enterprises – without current deposits

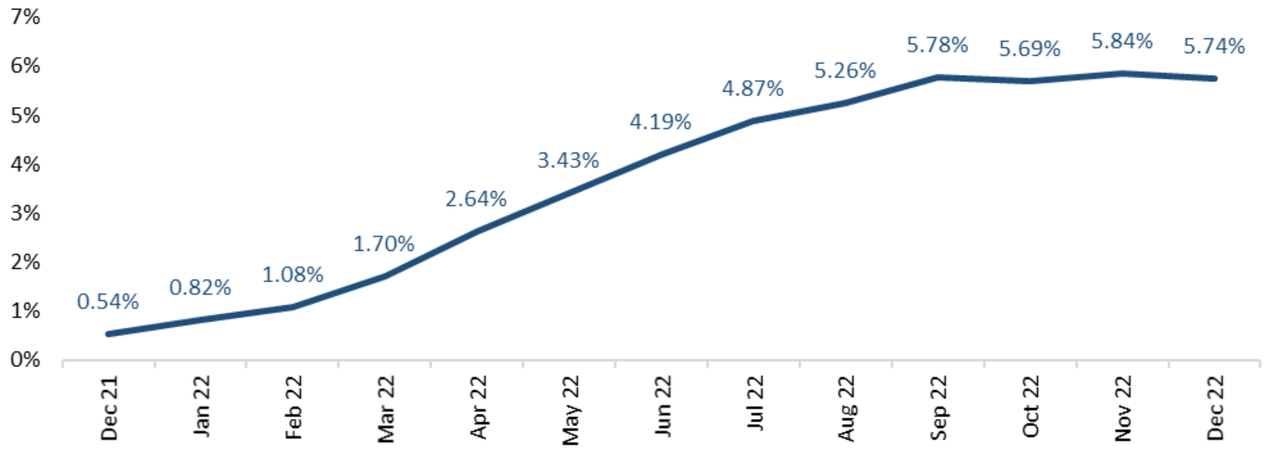


Diagram 60 Average interest rate offered to enterprises – new and renegotiated deposits in each reporting month

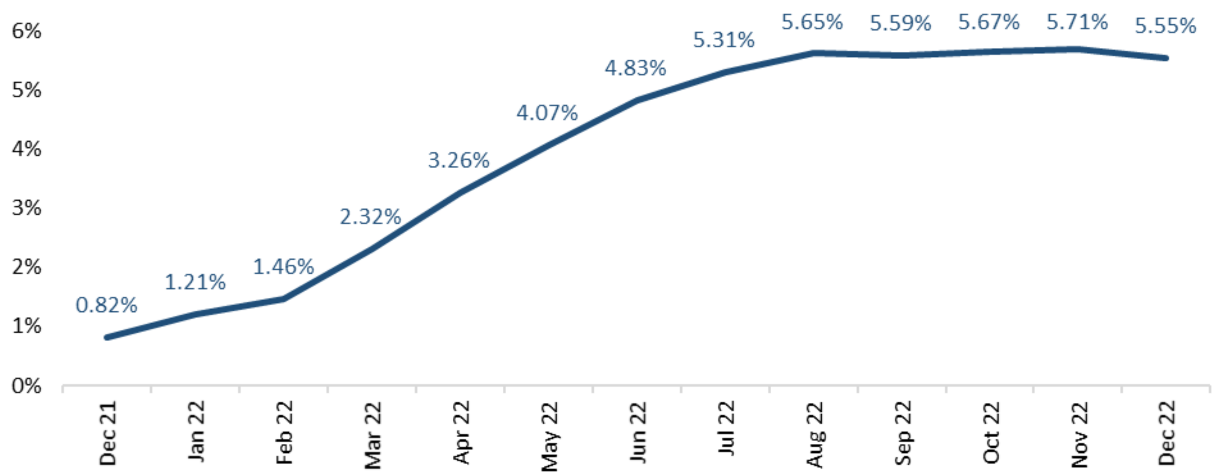
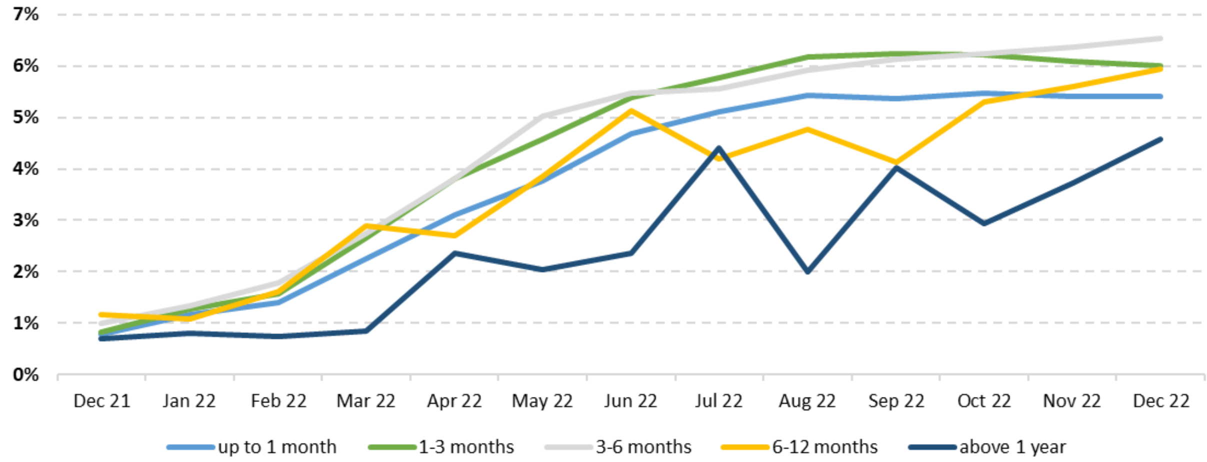


Diagram 61 Changes in interest rate over time by tenor – new and renegotiated agreements



6. Capital adequacy

In 2022, the equity situation of the banking sector remained stable. The value of the sector's own funds at the end of 2022 was equal to PLN 221.5 billion (+1.0% YoY). Tier 1 capital accounted for 90.5% of own funds.

The amount of exposure to credit risk in the banking sector decreased by 3.7% YoY. The amount of exposure to operational risk increased by 20.3% YoY. The total amount of exposure to risk decreased by 1.0% YoY.

Table 23 Own funds, risk exposure amount

	Value (PLN billion)		YoY change	
	Dec 22	Dec 21	PLN billion	per cent
Own funds				
banking sector	221.5	219.3	2.1	1.0%
commercial banks	207.7	206.1	1.5	0.7%
cooperative banks	13.8	13.2	0.6	4.3%
Tier I capital				
banking sector	200.5	197.0	3.6	1.8%
commercial banks	187.1	184.1	3.0	1.6%
cooperative banks	13.4	12.8	0.6	4.6%
Tier II capital				
banking sector	20.9	22.4	-1.4	-6.4%
commercial banks	20.6	22.0	-1.4	-6.4%
cooperative banks	0.4	0.4	0.0	-6.3%
Total risk exposure amount				
banking sector	1,120.7	1,132.0	-11.3	-1.0%
commercial banks	1,048.8	1,060.7	-11.9	-1.1%
cooperative banks	71.9	71.3	0.7	0.9%
Amount of exposure – credit risk				
banking sector	975.0	1,012.5	-37.5	-3.7%
commercial banks	914.5	950.0	-35.6	-3.7%
cooperative banks	60.6	62.5	-1.9	-3.0%
Amount of exposure – operational risk				
banking sector	124.7	103.6	21.1	20.3%
commercial banks	113.4	94.8	18.6	19.6%
cooperative banks	11.4	8.8	2.5	28.5%
Amount of exposure – other risks				
banking sector	21.0	15.8	5.1	32.5%
commercial banks	21.0	15.8	5.1	32.4%
cooperative banks	0.0	0.0	0.0	335.1%

A slight increase in the value of own funds, with an increase in the total risk exposure amount, resulted in an increase in the total capital ratio (TCR) by 0.4 pp YoY. TCR at the end of 2022 for the entire banking sector was 19.8%: 19.8% for commercial banks, and 19.2% for cooperative banks.

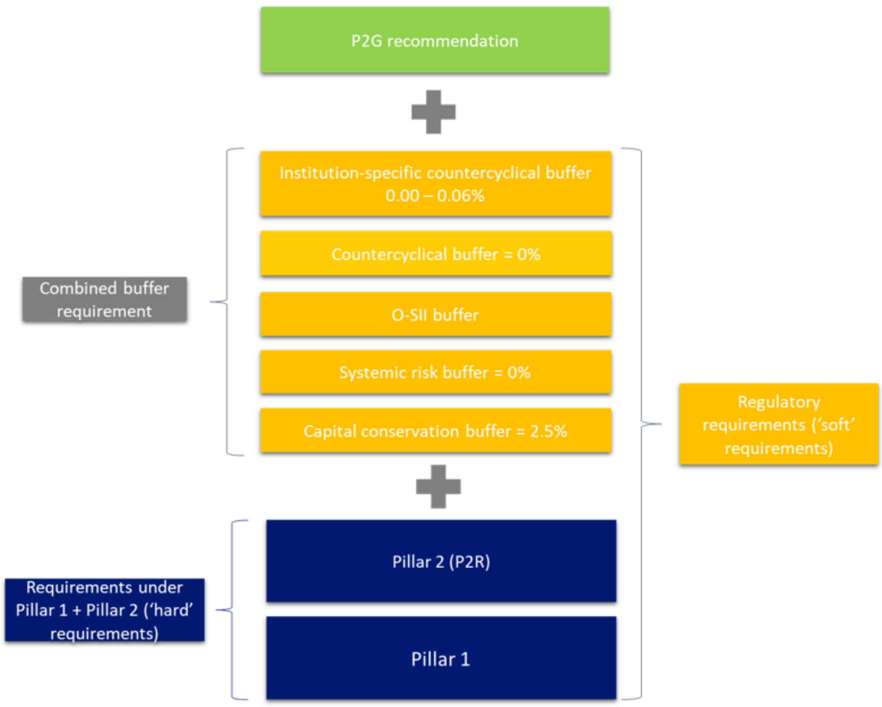
Table 24 Capital ratios (%)

	Dec 22	Dec 21	YoY change (pp)
TCR – total capital ratio			
banking sector	19.8%	19.4%	0.4
commercial banks	19.8%	19.4%	0.4
cooperative banks	19.2%	18.5%	0.6
T1 – Tier I capital ratio			
banking sector	17.9%	17.4%	0.5
commercial banks	17.8%	17.4%	0.5
cooperative banks	18.7%	18.0%	0.7
CET1 – Tier I core capital ratio			
banking sector	17.9%	17.4%	0.5
commercial banks	17.8%	17.4%	0.5
cooperative banks	18.7%	18.0%	0.7

The surplus of banks' capital above the minimum regulatory requirement increased by the combined buffer requirement was PLN 91.4 billion at the end of 2022 (PLN 90.4 billion at the end of 2021).

At the end of 2022, all commercial banks and all cooperative banks fulfilled the regulatory requirements on minimum capital ratios, increased by the combined buffer requirement.

The following figure shows the components of capital requirements, considering the P2G additional capital add-on.



Pillar 2 Requirement (P2R) – additional regulatory capital requirement

The values under the additional capital requirement increase the value under the regulatory requirements on minimum capital ratios.

In 2022, an additional capital requirement was imposed, on account of foreign-currency mortgage loans to households, on commercial banks which reach the following materiality thresholds:

a) foreign-currency loans granted to unsecured borrowers (from the household category) constitute at least 10% of the entire portfolio of the bank's loans to the non-financial sector, and
b) the portfolio of loans to the non-financial sector constitutes at least 25% of the bank's total assets.

P2R is calculated for a specific bank on the basis of the following information derived from a survey:

- the method of managing the portfolio of mortgage-backed foreign-currency credit/loans to households in EUR and CHF;
- the method of considering the risk associated with that portfolio in the internal ICAAP procedures;
- the results of testing of the sensitivity of the portfolio of mortgage-backed foreign-currency household loans in EUR and CHF to defined changes in exchange rates and interest rates;
- the legal risk associated with exposures in the portfolio of foreign-currency credit/loans;
- concentration of the portfolio of foreign-currency credit/loans by geographic area and volume.

Pillar 2 Guidance (P2G) – a recommendation on capital under Pillar 2

The recommendation under Pillar 2 concerns an additional level of CET1 capital (capital add-on) that banks should aim to maintain in order to be better prepared for potential materialisation of stress scenarios affecting the level of own funds and their exposure to risk. The P2G recommendation on capital was incorporated in the dividend policy of commercial banks for 2023 by Position of the KNF Board of 6 December 2022.

The P2G capital add-on may be composed of two elements: basic add-on and additional add-on. The basic add-on is determined on the basis of the results of stress tests concerning the general macro-economic situation. The additional add-on is determined if there have been identified additional risks not included, or insufficiently included, in the macro-economic scenario and which, due to their materiality, should be considered separately. The additional add-on may be determined on the basis of one or more additional scenarios.

The maximum rate of the capital add-on is 4.5%. In 2022, no additional risk was identified, that had not been adequately included in the shock scenario concerning the macro-economic situation. Therefore, the additional add-on was not imposed, and the capital add-on was composed of the basic add-on only.

Other systemically important institutions (O-SIIs) in Poland in 2022

By decision of the KNF Board of 16 December 2022, ten banks were identified as O-SIIs, so the following buffer rates were imposed on them:

Item.	Name of bank	O-SII buffer rate after the decision	O-SII buffer rate prior to the decision
1	PKO BP	2.00%	1.00%
2	Santander BP	1.00%	0.75%
3	Pekao	1.00%	0.75%
4	ING BSK	0.50%	0.75%
5	mBank SA	0.50%	0.50%
6	B. Handlowy	0.25%	0.25%
7	BNP Paribas BP	0.25%	0.25%
8	Bank Millennium	0.25%	0.25%
9	Bank Polskiej Spółdzielczości	0.25%	0.10%
10	SGB-Bank	0.25%	0.10%

7. Interest rate risk arising from non-trading book activities – commercial banks

For the purpose of the analysis of the IRRBB at commercial banks, a survey was conducted, involving a supervisory analysis of stress test results as required in the EBA/GL/2018/02 guidelines.

All banks recognise interest rate risk arising from the banking book as material and allocate internal capital for such risk.

Banks' internal capital is not always sufficient to cover the potential losses resulting from the analysis of stress tests and supervisory outlier tests, determined under the above-mentioned guidelines. The sensitivity of most banks' net interest income is moderate (the average sensitivity of the sector is approx. -6% in the event of changes in interest rates by 100 bp).

Banks identify the risk of early loan repayment.

EBA guidelines and tools for managing and measuring exposure to IRRBB

The EBA guidelines define three main aspects of the IRRBB:

- gap risk – the risk of mismatches in different time bands which arises from differences in the timing of interest rate sensitive instruments;
- basis risk, which arises from the imperfect correlation in the adjustment of the interest rates earned and paid on different interest rate sensitive instruments with otherwise similar rate change characteristics;
- option risk, which arises from (embedded or explicit) options where an institution or its customer can alter the level and timing of their cash flows.

In the commercial banks sector, all banks identify the risk of mismatches in different time bands, while some banks do not identify any basis risk or option risk, including the risk of prepayment of liabilities.

Most banks use a wide range of available measures and tools to manage interest rate risk arising from non-trading book activities. Banks declare that they carry out a gap analysis, duration analysis, a test of sensitivity of net interest income to interest rate changes, and an analysis of changes in the economic value of equity (EVE) using various scenario analyses. Commercial banks report that they use more test scenarios than only those following from the EBA's guidelines on the IRRBB and they consider, in their test scenarios, the correlation with other types of banking risk (e.g. credit risk and liquidity risk).

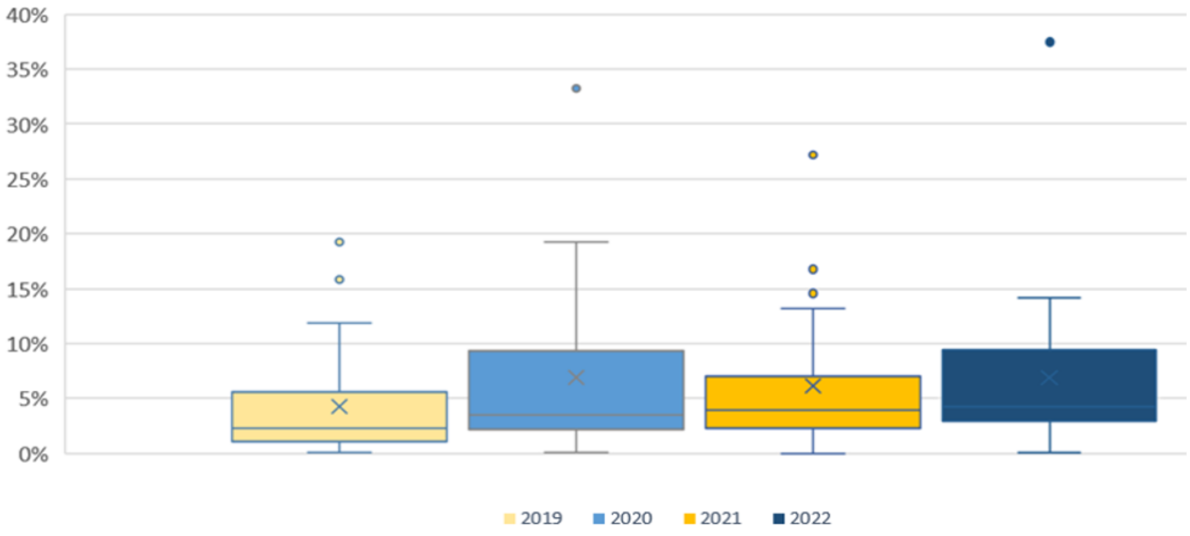
In most cases, banks confirm that they fulfil the requirements laid down in the EBA's guidelines in relation to the quality of management of interest rate risk arising from non-trading activities (for example they include the risk in the ICAAP) and they regularly carry out stress tests.

Inclusion of interest rate risk arising from non-trading activities in the ICAAP

Almost all banks maintain an internal capital to cover the interest rate risk, which capital is proportional to the level of that risk and the risk appetite. In order to set the internal capital to cover the IRRBB, most banks consider a potential change of the economic value of equity, a change of income, or value-at-risk (VaR).

In 2020 (data as at June 2020, i.e. during the pandemic and shortly after the reduction of interest rate following the decision of the Monetary Policy Council), the ratio of the banks' internal capital for the IRRBB to their own funds increased dramatically.

Diagram 62 Breakdown of the ratio of internal capital for IRRBB to own funds in each year (sector)



The dots on the diagram correspond to outliers, the lower and upper lines correspond to the minimum and maximum values (excluding outliers), the line in the coloured rectangle corresponds to the median, the lower and upper lines of the rectangle correspond to the first and third quartiles, and the cross corresponds to the average value.

8. MREL for commercial banks

The method of determining MREL proposed by the Bank Guarantee Fund (BFG)

Under the Act of 10 June 2016 on the Bank Guarantee Fund, the deposit guarantee scheme and resolution (Act on the BFG), the BFG must determine the minimum requirement for own funds and eligible liabilities (MREL) for each bank. The requirement is imposed by way of a communication to the bank concerning the joint decision made by the resolution college (for subsidiaries of banks established in the EU) or a communication summarising the resolution plan (for other banks).

The level of the requirement depends on the results of the analysis of the impact of a bank's failure on the banking sector. If the failure is found not to have a potential impact on the sector, MREL corresponds to the requirements on own funds (the so-called MREL for loss absorption). Otherwise the bank is required to fulfil not only MREL for loss absorption but also MREL for recapitalisation. MREL for recapitalisation is used to restore capital as part of the resolution process: it is assumed that the instruments used to meet the requirement will be converted into equity instruments, which will allow to fulfil the requirements laid down in Article 92 of Regulation 575/2013.

In practice, this means that banks are required to meet MREL set as % of the total risk exposure amount (% of RWA) and as % of the total exposure measure (i.e. leverage ratio denominator, % of TEM). The own funds used to meet MREL must not be used to meet the combined buffer requirement, which means that the banks' actual demand for own funds and eligible liabilities corresponds to the sum of MREL and combined buffer requirement.

For banks for which the BFG has set MREL for recapitalisation, the requirement depends on the assessment whether recapitalisation is to apply to the balance sheet total or only a part of the bank's business should be subject to recovery to achieve the goals of the resolution. In general, banks for which the BFG has set MREL for recapitalisation must meet the requirement on a consolidated basis, and the consolidated RWA excludes RWA of mortgage banks that are in the group. For banks being members of European groups identified as global systemically important institutions (G-SIIs), an important factor in relation to MREL is the approach to resolution adopted within the whole group. Where the Single Point of Entry (SPE) strategy is implemented, the resolution process is launched simultaneously for all the entities by the group's resolution authority. Banks in a group have MREL determined at individual level and the instruments used to meet the requirement should be taken up by the parent entity or other entities in the group. Where the Multiple Point of Entry (MPE) strategy is implemented, it is assumed that the resolution process will be conducted for each entity separately by the local resolution authority. In such case, all banks in the group (provided that the resolution authority finds that the uncontrolled failure will have a negative effect on the sector) are required to meet not only MREL but also the requirement on TLAC, which is 18% of RWA and 6.75% of TEM. In practice, this means that banks must meet the higher of those requirements.

For banks whose failure is acceptable, MREL should be met at individual level.

In 2023, all banks for which the BFG set MREL are required to meet it, and the BFG set transitional periods for banks for which MREL for recapitalisation was set. The initial idea was that starting from 2022, MREL set as both % of RWA and % of TEM would increase gradually, but in September 2022 the BFG decided to renounce the second transitional period for MREL as % of RWA; the requirement applicable in 2023 is at the same level as in 2022.

The overall deficit of instruments used to meet MREL as % of RWA increased by the combined buffer requirement as at 31 December 2023 would amount to approx. PLN 15 billion (the amount estimated last year was PLN 12 billion). It should be emphasised that for banks being members of European G-SIIs, iMREL (internal MREL) should be met mainly by the instruments taken up by a shareholder or other entities in the group. The other banks should obtain own funds or eligible liabilities from third parties.

Structure of instruments used to meet MREL

The vast majority of MREL (92% this year, 95% last year) is met with own funds. Banks usually consider the issuance of senior non-preferred debt due to a relatively lower cost in comparison to instruments classified as own funds.

Banks' plans regarding the acquisition of MREL instruments

Instruments to be used to meet MREL are expected to be issued in 2023. At the same time, the BFG allows for temporary non-compliance with MREL also in 2024, provided that a compliance plan is submitted.

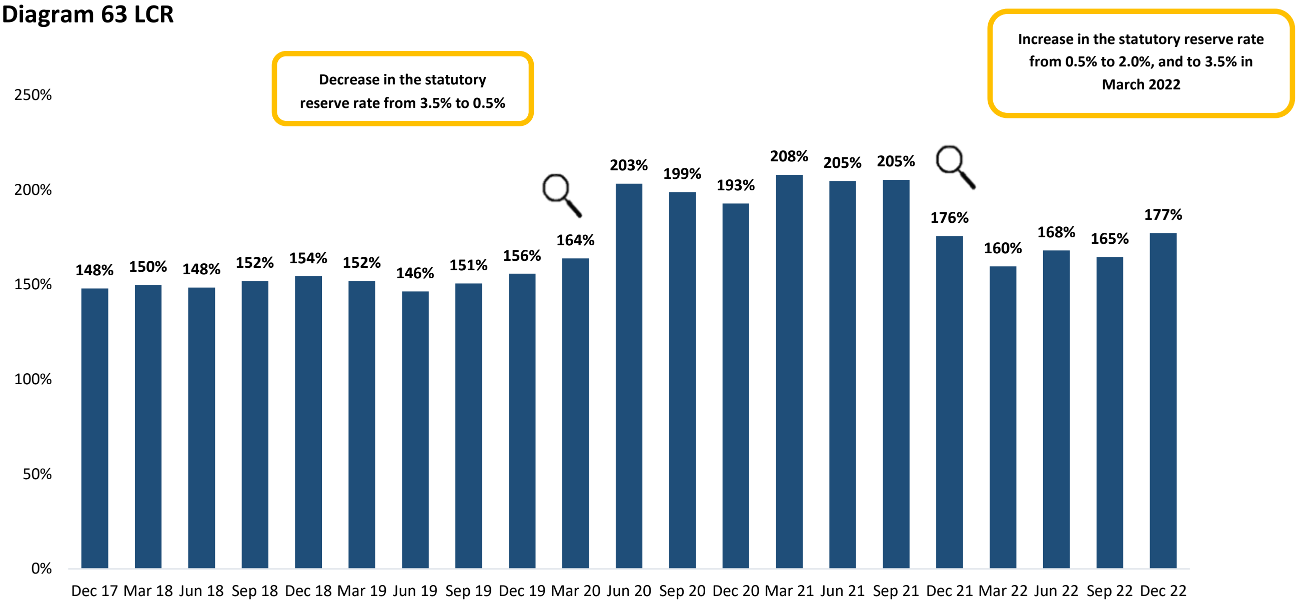
Potential barriers to compliance with the target MREL level:

- potential high costs of legal risk associated with CHF loans may discourage potential buyers of instruments issued by banks,
- the need to carry out an issue in an international market (higher costs of the issue, foreign exchange risk),
- the expiration of the transition period for the settlement under IFRS 9, COVID – more reductions of own funds.

9. Liquidity

At the end of 2022, all banks complied with the applicable short-term liquidity standard – LCR (commercial banks and cooperative banks operating outside the institutional protection schemes (IPSs) – individually, and banks participating in an institutional protection scheme – at IPS level). The average value of that ratio has for years exceeded the required minimum of 100%, reaching at the end of 2022 177% in the commercial banks sector and 314% in the cooperative banks sector (IPSs included).

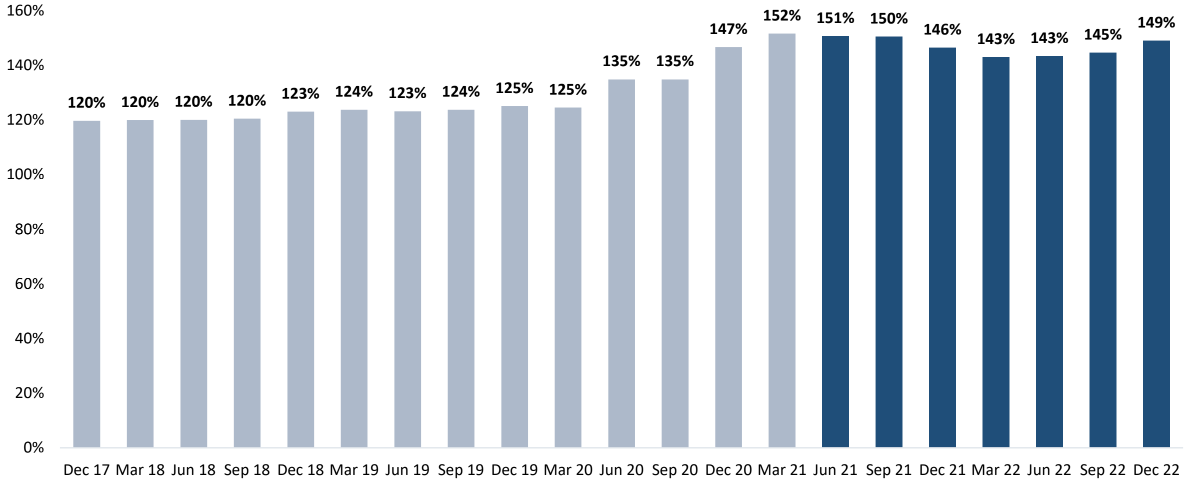
Diagram 63 LCR



In early 2022, the value of government bonds included in liquid assets decreased, which resulted mainly from their revaluation following a rapid increase in the expected rate of return.

The net stable funding ratio (NSFR), since it became a regulatory requirement for banks (i.e. since 28 June 2021), has been above the required 100%. At the end of 2022, the ratio reached 149% in the commercial banks sector and 183% in the cooperative banks sector (IPSs included).

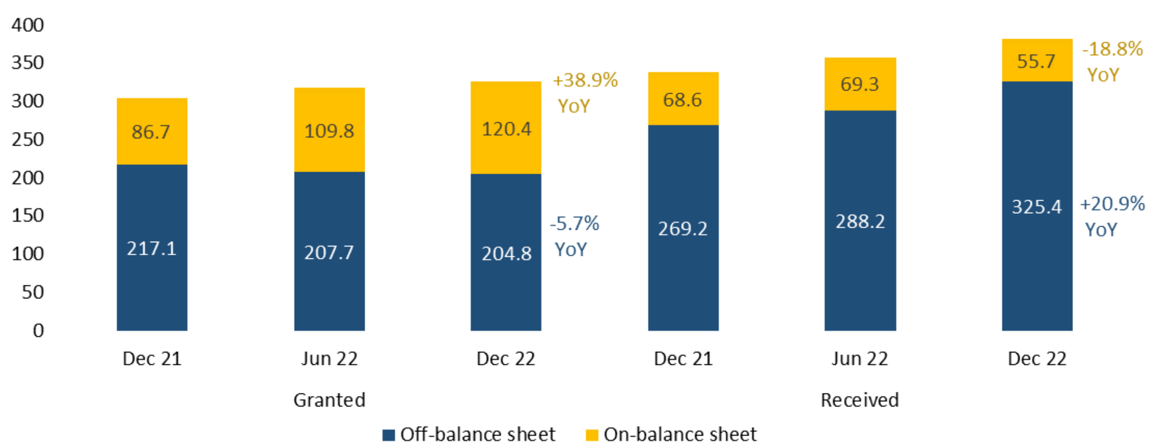
Diagram 64 NSFR



10. Financing as part of transactions with related parties

In December 2022, commercial banks provided the entities affiliated to them through capital with financing in the amount of PLN 325.8 billion (a YoY increase of 7.0%), of which 63.0% constituted off-balance-sheet financing. In turn, commercial banks received financing in the amount of PLN 381.8 billion (a YoY increase of 12.8%), of which 79.7% constituted off-balance-sheet financing. Notably, there was an increase in the on-balance-sheet financing granted (38.9% YoY), with an equally significant decrease in the on-balance-sheet financing received (-18.8% YoY). The total financing balance amounted to PLN 55.9 billion in 2022 and increased by PLN 21.9 billion YoY, mainly due to a significant increase in the off-balance-sheet financing received.

Diagram 65 Financing structure in PLN billion



On-balance-sheet financing

The amount of the on-balance-sheet financing received was PLN 55.7 billion and decreased by PLN 12.9 billion YoY. The value of on-balance-sheet financing granted increased by PLN 33.7 billion YoY, i.e. much more than in 2021 (PLN 17.8 billion).

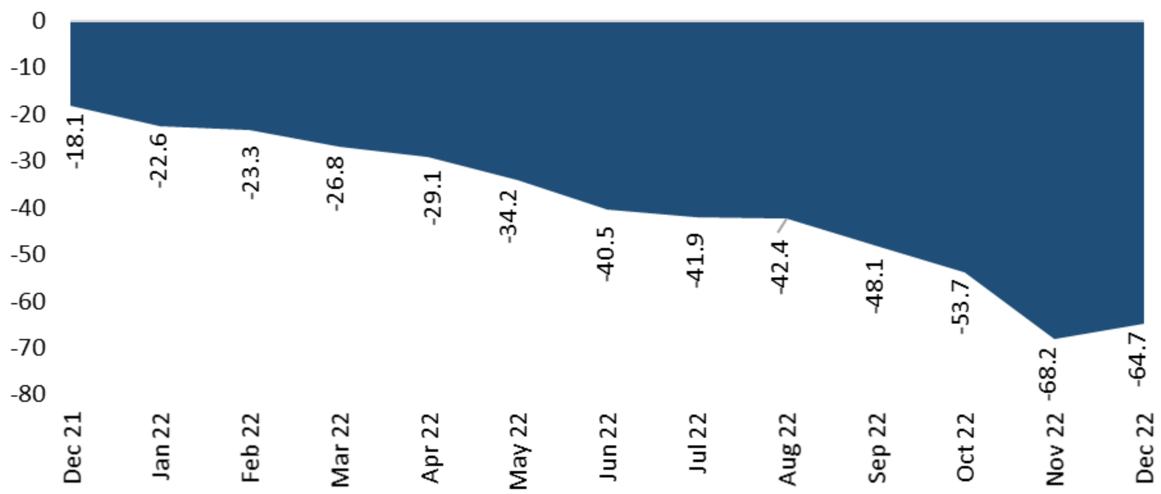
In 2022, the balance of on-balance-sheet financing remained negative and the deficit was growing over the year. The lowest level of the balance was recorded in November (PLN -68.2 billion).

The decrease in the balance was due to:
- an increase in the costs of swapping PLN for foreign currencies, particularly for EUR;
- seeking optimum allocation of a capital surplus (an increase in the value of reverse repo transactions concluded with parent banks).

Table 25 On-balance-sheet financing granted and received (PLN billion)

Type of financing	Dec 21	Dec 22	YoY change	YoY change (%)
Granted	86.7	120.4	33.7	38.9%
Received	68.6	55.7	-12.9	-18.8%
Balance	-18.1	-64.7	-46.6	

Diagram 66 Balance of on-balance-sheet financing in PLN billion by month



Non-residents represent the main source of on-balance-sheet financing as part of relations in the group (55.7%, a YoY decrease by 4.6 pp, as a continuation of the downward trend). As at December 2022, banks received PLN 31.0 billion from non-residents (a YoY decrease by PLN 10.3 billion). 81.6% of on-balance-sheet financing comes from parent banks (a YoY increase of 7.2 pp) but in monetary terms it is a YoY decrease by PLN 5.5 billion.

Residents are the main recipients of on-balance-sheet financing granted by banks; as at December 2022, they received PLN 96.9 billion from banks (a YoY increase by PLN 12.7 billion). Non-residents received PLN 23.5 billion from banks (a tenfold YoY increase).

Financing granted to parent banks increased from PLN 0.9 billion in December 2021 to PLN 21.6 billion in December 2022. This could indicate a growing role of some Polish banks as entities financing their parent banks.

Off-balance-sheet financing

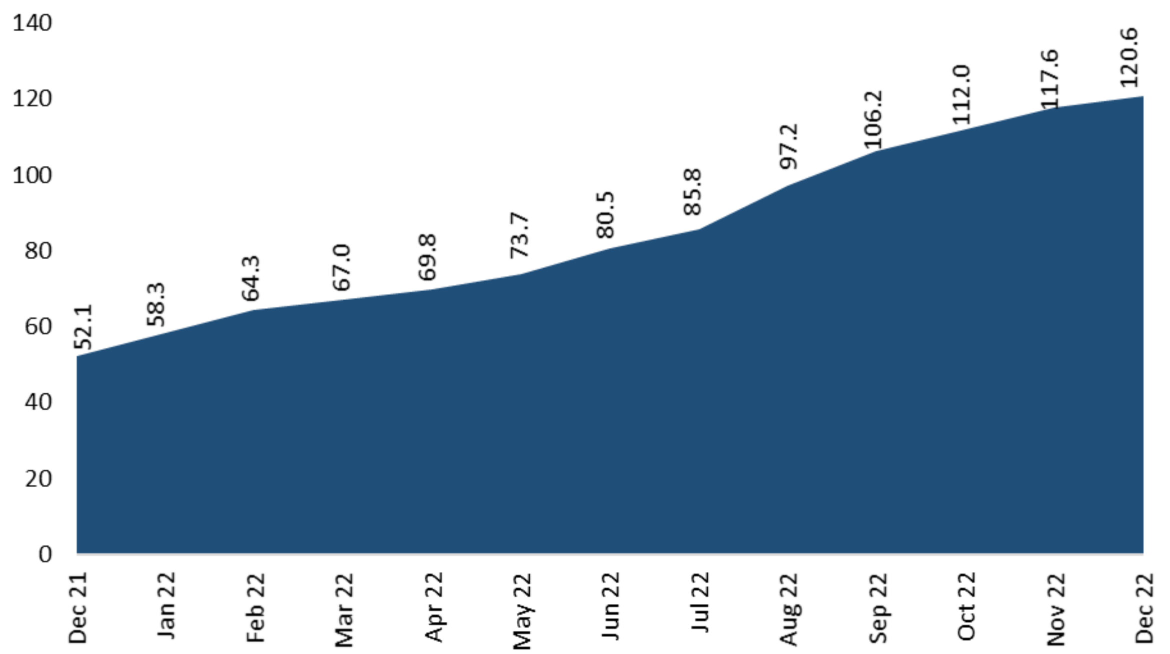
As at December 2022, the value of off-balance-sheet financing granted decreased YoY by PLN 12.3 billion to PLN 204.8 billion. The off-balance-sheet financing received increased YoY by PLN 56.2 billion.

Table 26 Off-balance-sheet financing granted and received (PLN billion)

Type of financing	Dec 21	Dec 22	YoY change	YoY change (%)
Granted	217.1	204.8	-12.3	-5.7%
Received	269.2	325.4	56.2	20.9%
Balance	52.1	120.6	68.5	131.5%

There was an upward trend regarding the excess of the financing received in comparison to the financing granted, due to a significant increase in the value of financing received. The excess reported in December was the highest excess over the year. The excess at the end of December 2022 amounted to PLN 120.6 billion and had more than doubled compared to the year before.

Diagram 67 Balance of off-balance-sheet financing in PLN billion by month



As at the end of December 2022, non-residents represented the main source of off-balance-sheet financing as part of relations in the group. Banks received 94.5% of financing, i.e. PLN 307.5 billion, from non-residents. The share of non-residents in overall off-balance-sheet financing received is stable. As regards financing from residents, banks received PLN 17.9

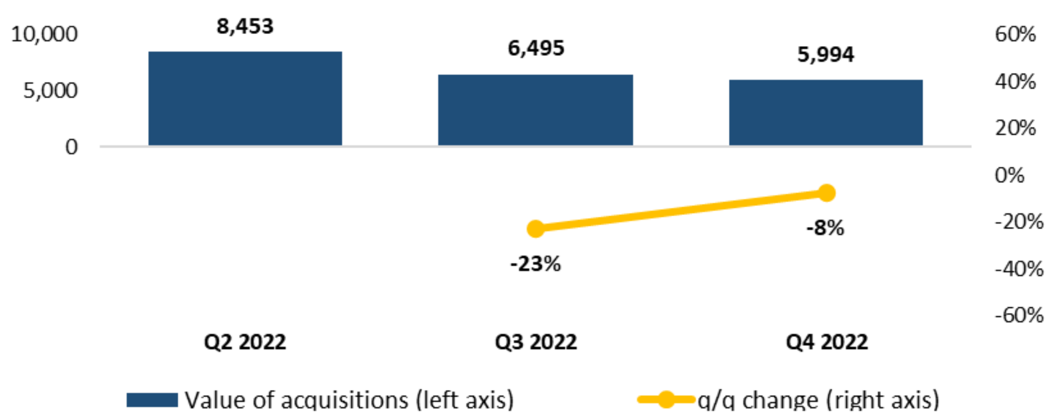
billion (a YoY increase by PLN 3.6 billion). PLN 262.0 billion of off-balance-sheet financing comes from parent banks (a YoY increase by PLN 64.7 billion).

Banks granted off-balance-sheet financing to residents in the amount of PLN 67.3 billion (a YoY increase by PLN 3.5 billion) and to non-residents in the amount of PLN 137.5 billion (a YoY decrease by PLN 15.8 billion). PLN 89.8 billion of off-balance-sheet financing was granted by banks to parent banks (a YoY decrease by PLN 8.3 billion).

11. Sales activities of the banks referred to in Article 70(2) of the Act on trading in financial instruments: retail clients

In the fourth quarter of 2022, retail clients of the banks referred to in Article 70(2) of the Act on trading in financial instruments acquired financial instruments (except for derivatives) for the amount of PLN 6.0 billion, i.e. 29.1% less than in the second quarter of 2022.[2] In 2022, the downward trend in the value of acquisitions caused by high interest rates continued.

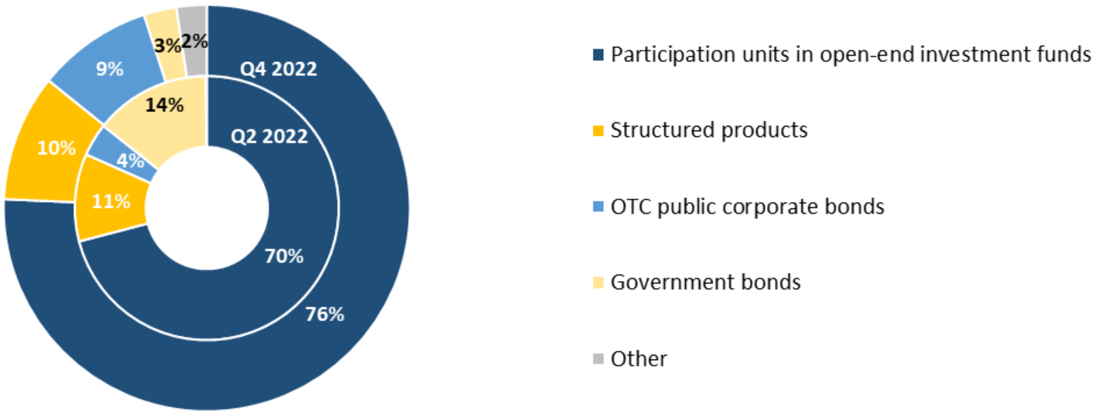
Diagram 68 Value of acquisitions of financial instruments by retail clients in Q2–Q4 2022 (PLN million)



The decrease in the total value of financial instruments acquired by retail clients during the period under assessment was caused by a decrease in the value of acquisitions of participation units in open-end investment funds (by PLN 1.4 billion) and government bonds (by PLN 1.0 billion). Participation units in open-end investment funds are still the main type of financial instrument being acquired.

[2] A new report form was introduced in the second quarter of 2022 for reporting sales activities. The scope of changes, including definitions, and the related process of agreeing with banks on the characteristics of data (e.g. during a CEDUR training session and in the form of new instructions) had a material effect on the values being recognised, both before and after the changes. Therefore, this report reviews only data from the first period covered by the new report form, i.e. from the second quarter of 2022 onwards.

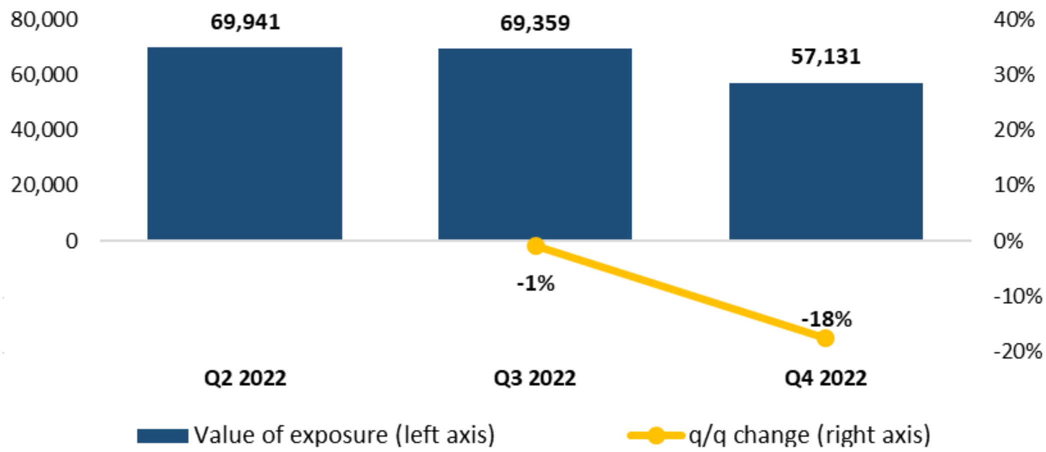
Diagram 69 Structure of acquisitions of financial instruments by retail clients in Q2–Q4 2022 (PLN million)



Although the value of acquisitions of financial instruments tends to decrease, the negative balance of net acquisitions is gradually decreasing.

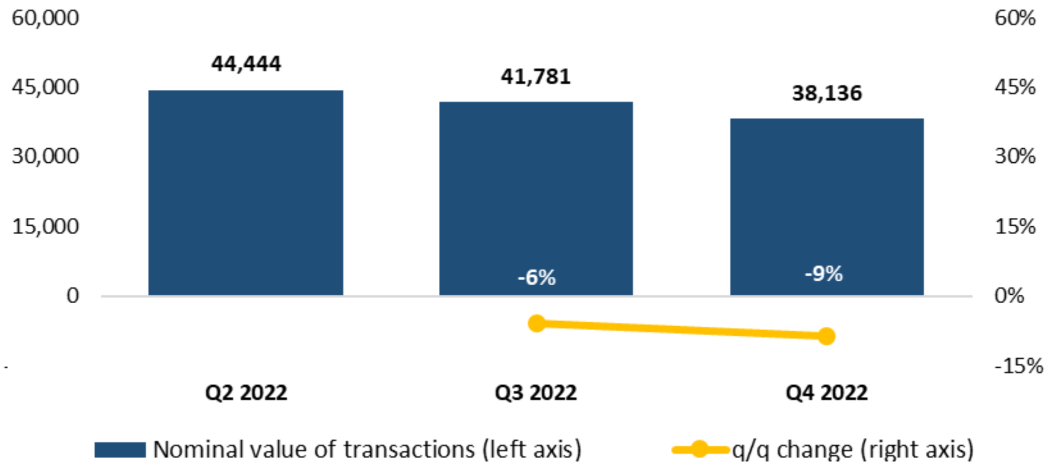
As regards trading in derivatives, the activity of retails clients is declining steadily, both in terms of the declining nominal value of the transactions and in terms of the value of clients' exposure.

Diagram 70 Value of exposure from derivatives of retail clients in Q2–Q4 2022 (PLN billion)



The declining activity of customers trading in derivatives can also be seen in the case of the nominal value of the transactions in the last quarter. Forward contracts represent a large share in the nominal value of the transactions in derivatives.

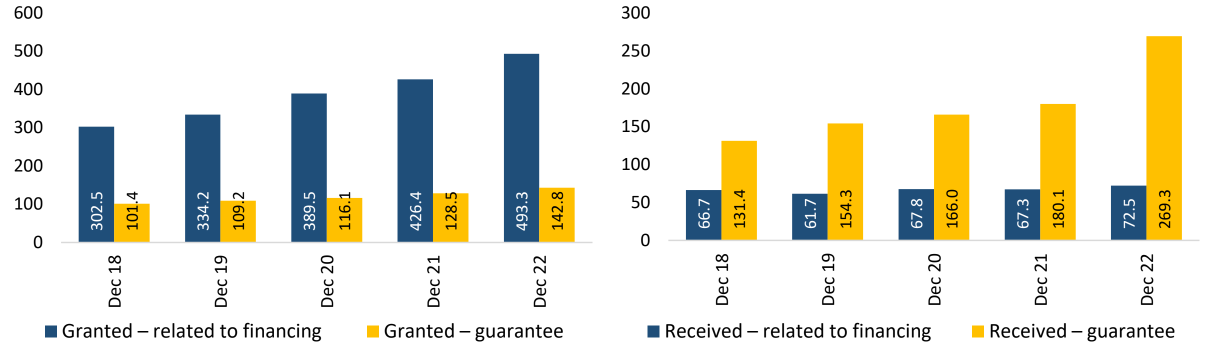
Diagram 71 Nominal value of transactions in derivatives of retail clients in Q2–Q4 2022 (PLN million)



12. Off-balance-sheet commitments

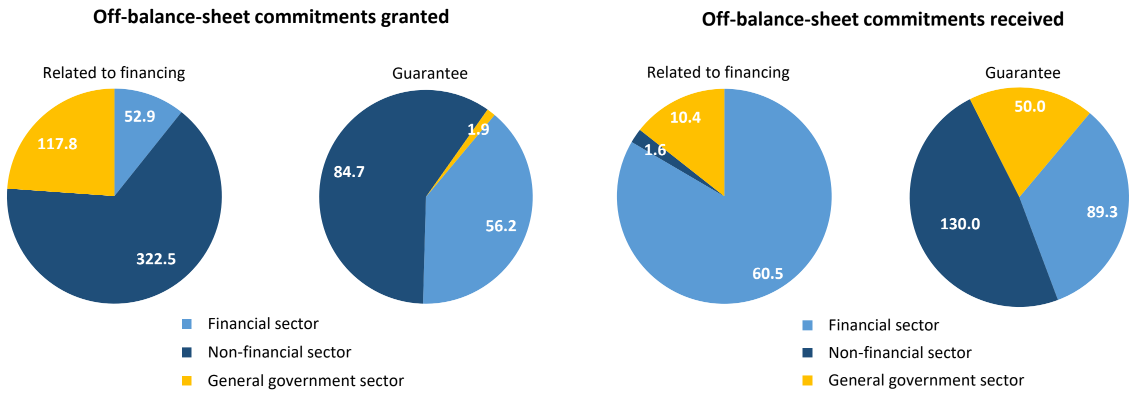
In 2022, in the banking sector, as in previous years, there continued the trend of a growing volume of off-balance-sheet financing commitments granted, and guarantee commitments received. About 60% of the financing commitments granted were credit lines, and a half of guarantees received were the guarantees of loan repayment.

Diagram 72 Off-balance-sheet commitments of the banking sector (PLN billion)



As in previous years, the structure of off-balance-sheet commitments by entity did not change in 2022. Commitments extended related to financing and guarantees for the non-financial sector continued to dominate. For commitments received, the guarantees were provided from the non-financial sector, while most of the commitments related to financing were from the financial sector.

Diagram 73 Off-balance-sheet commitments – structure by entity (December 2022, PLN billion)



13. Asset securitisation

In 2022, banks concluded eight asset securitisation transactions worth a total of PLN 22 billion. All the transactions were private transactions, that is transactions conducted without the requirement to draw up a prospectus, addressed to a small group of professional investors. Seven out of eight transactions were synthetic transactions, aimed at reducing risk, and consequently the capital requirements for certain asset portfolios, thus improving capital ratios. One transaction was a traditional securitisation transaction in which a bank obtained financing through the sale of assets to a special-purpose vehicle.

At the end of 2022, supervision was exercised over nine asset securitisation transactions, with an initial value of PLN 23.8 billion, executed by commercial banks. All the transactions were private. The year 2022, in which eight transactions were concluded, was therefore a record year for securitisation in the banking sector.

14. Payment transactions and fraudulent transactions at commercial banks in 2022[3]

The method of using banking services changes constantly, mostly due to the rapid development of the FinTech sector but also due to new legal regulations and growing needs of customers, who expect appropriate quality and availability of financial services at a convenient place and time. Much of the transformation can be seen in the communication between the customer and the bank, as a traditional visit to a bank's branch can be replaced with virtual contact, particularly by means of mobile devices, e.g. smartphones. The key impulse for the development of new solutions based on traditional banking services is the Payment Services Directive 2 (PSD2). The new Directive has changed the activity of payment service providers, including banks, by shifting it towards the open banking model using Application Programming Interface (API).

Major changes have taken place in recent years in the area of retail payments in terms of technological innovation. That has increased the volume of online payments (mainly in the area of mobile banking).

It is also important to note the emergence of new types of payment services, the so-called Access to Account services. In general, until now only customers of banks have had direct access to their payment accounts and could order payment transactions. Under the PSD2, the philosophy of access to payment accounts has changed immensely, as now authorised third party providers (TPPs) may gain access to information about the customer's account or order a payment on behalf of the customer. As a result, the year 2022 also marks another stage of completion of Open Banking, defined as a new payments market operated by both domestic banks and other non-bank service payment providers which can serve as a basis for creating smart finance applications in the future.

Background

The total number of payment transactions effected by commercial banks in 2022 is 17.7 billion operations (a YoY increase of 11.32%) worth a total of PLN 40.4 trillion (a YoY increase of 25.08%). The average value of a payment transaction was PLN 2 300 (a YoY increase of 13.3%).

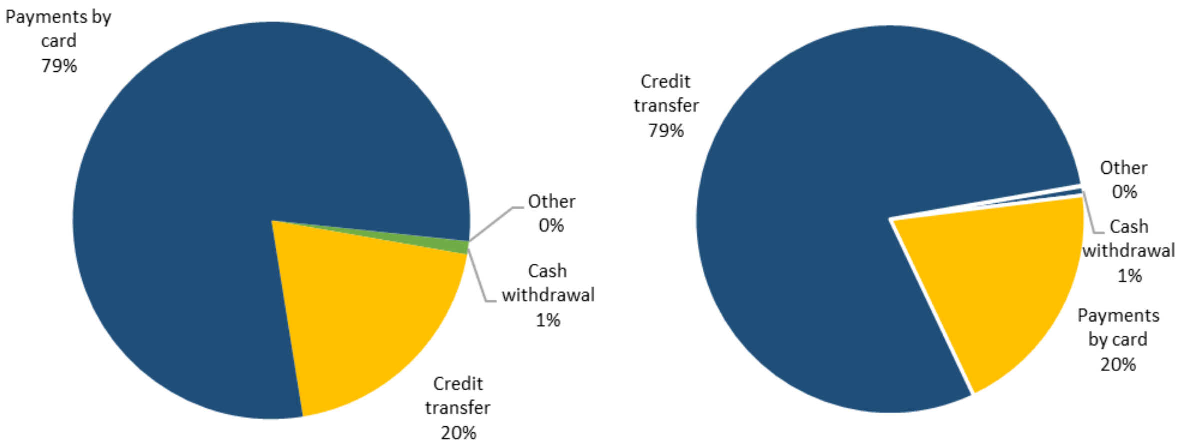
[3] The data for the 1st quarter of 2023; the data are updated by payment service providers on an ongoing basis.

Five supervised entities executed altogether more than 75% of the payment transactions of the entire banking sector.

Fraudulent transactions

The total number of fraudulent payment transactions effected by commercial banks in 2022 was 322 500 operations (a YoY increase of 10.94%) worth a total of PLN 401.0 million (a YoY increase of 9.89%). The average value of a fraudulent payment transaction was PLN 1 400 (a YoY increase of 12%).

Diagram 74 Number (the left circle) and value (the right circle) of fraudulent transactions in 2022



The largest group of fraudulent payment transactions are payments by card: 79% of all payment transactions (a YoY decrease of 2.83 pp), which is mainly due to the link between such type of fraud and the e-commerce market. However, in terms of the value generated by each type of fraudulent transaction, payments by card account for only 20% of all such types of fraud (a YoY decrease of 6.1 pp). Fraudulent payments by card are rather incidental, and payment organisations also ensure proper protection in the form of a chargeback. At the same time, the access to funds via a payment card is limited, since obtaining card details does not make it possible to modify the settings made by the online banking user or access the user's interface.

Although credit transfer accounts for only 20% of all fraudulent transactions (a YoY increase of 29.87 pp), it also accounts for as much as 79% of the value of all fraudulent transactions (a YoY increase of 2.3 pp). This is due to the possibility of siphoning much bigger sums than in the case of payments by card: increasing the trading limits at online banking level, setting up a trusted beneficiary, exercising various other rights in online banking. Other types of fraudulent transactions include payment transactions initiated by payment transaction initiation service providers, acquired payments by card, credit transfer, payment transactions using electronic money, and money remittance.

Diagram 75 Fraudulent payment transactions in 2022 – non-remote transfers (the left circle) and remote transfers (the right circle)

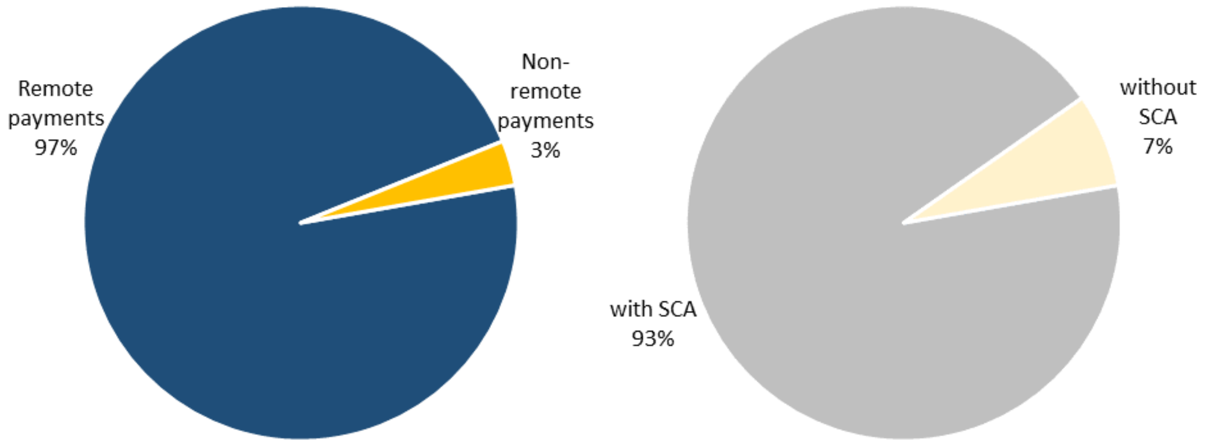
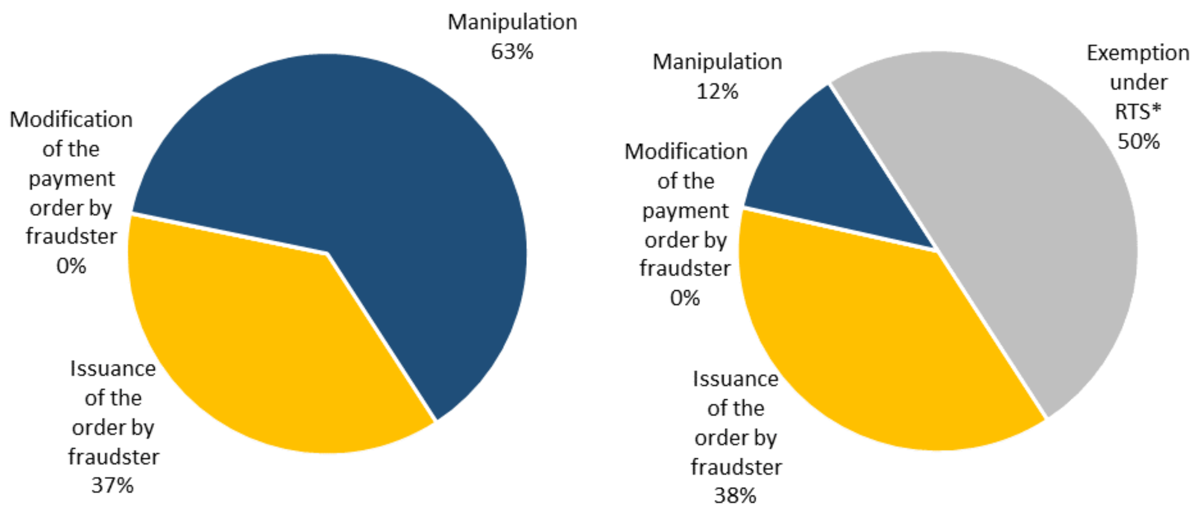


Diagram 76 Fraudulent payment transactions in 2022 – remote transfers with SCA (the left circle) and remote transfers without SCA (the right circle)



* The exemption from the requirement to use strong customer authentication provided for in Commission Delegated Regulation (EU) 2018/389 of 27 November 2017 supplementing Directive (EU) 2015/2366 of the European Parliament and of the Council with regard to regulatory technical standards for strong customer authentication and common and secure open standards of communication.

In regard to credit transfers, the predominant fraudulent transactions are those executed as part of remote payments. Similarly, payments by card are also dominated by fraudulent transactions effected as part of remote payments but to a lesser extent than transfers, due to a mobile nature of that payment instrument. Under the PSD2, ‘remote payment transaction’ means a payment transactions initiated via internet or through a device that can be used for distance communication. Such transactions are usually executed through strong customer authentication (SCA) and the most common method used by fraudsters (*modus operandi)* is the fraudster's act of issuing an order individually or manipulating the payer to do so. Also where the SCA is not applied, similar methods are the most common ones. For this type of transactions, no relevant number of cases of fraud has been seen for transactions exempted from the SCA under the provisions of the Delegated Regulation and the Directive[4].

Diagram 77 Fraudulent payment transactions in 2022 – payment by card (the left circle) and remote payments by card (the right circle)

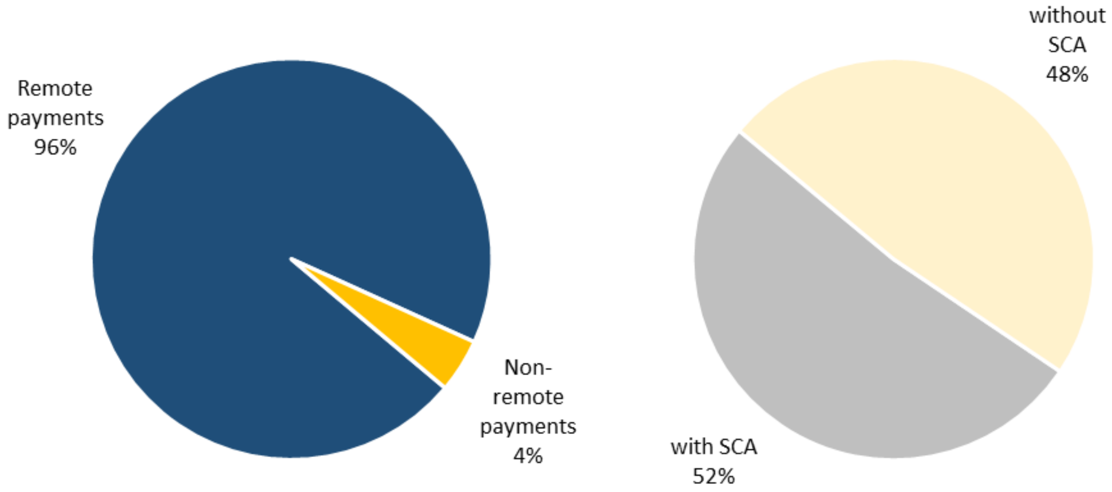
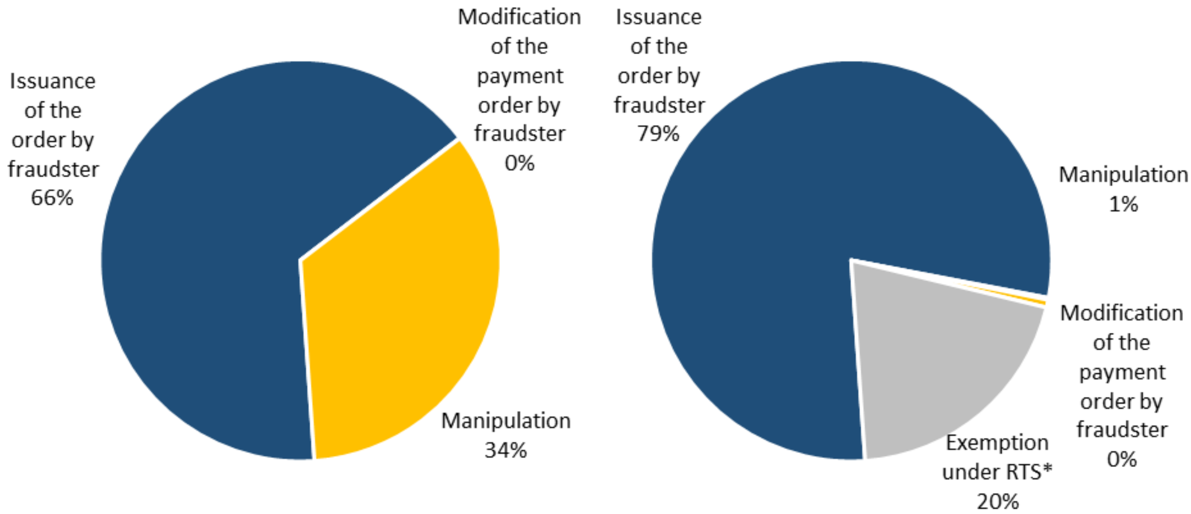


Diagram 78 Fraudulent payment transactions in 2022 – by card, remote, SCA (the left circle) and by card, remote, without SCA (the right circle)



[4] Low value, trusted beneficiary, recurring transaction, application of secure corporate payment processes and protocols, transaction risk analysis

Open Banking

2022 was marked by a material increase when it comes to banks using API access interfaces and providing the payment initiation service.

Diagram 79 Banks as payment initiation service providers (value)

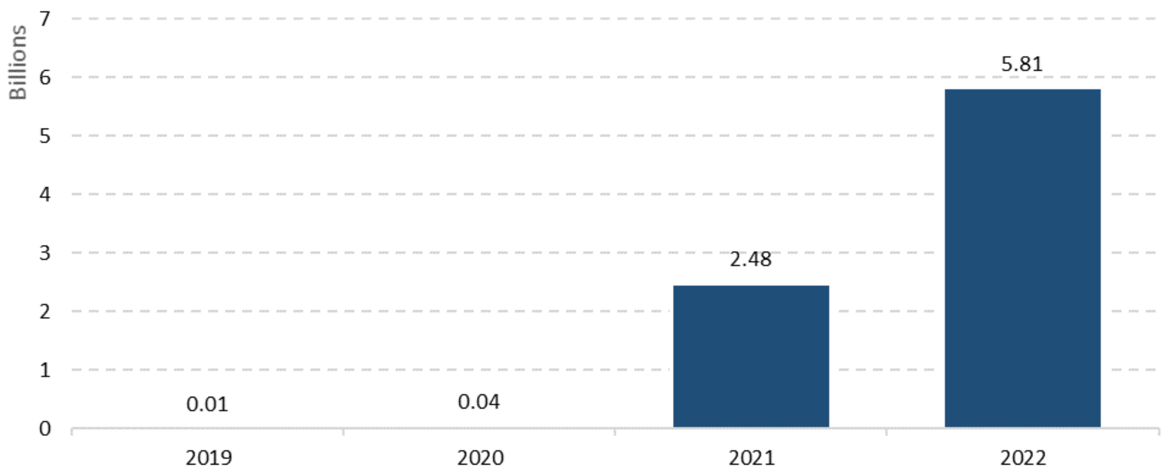
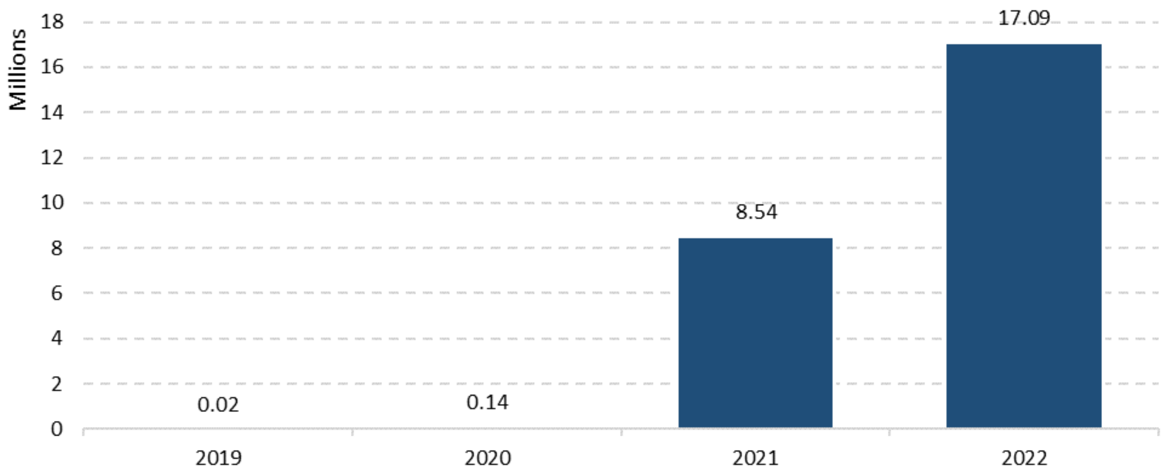


Diagram 80 Banks as payment initiation service providers (number)



The payment initiation service (PIS) consists in an entity authorised to provide such service initiating, at the request and on behalf of a user, a payment order (credit transfer) from a payment account of a user available online. In practice, the PIS is used in electronic commerce, where a third party provider (TTP) acting as a payment initiation service provider (PISP) supports the user in the process of making payments via internet, without the PISP entering into possession of the funds.

If the user (defined as payer) wishes to use the PIS, after placing an order at an online store (a defined merchant), the user is redirected to the website of the PISP, where they are asked to indicate the accounting servicing payment service provider (ASPSP, the payer's bank), from which the payment is to be initiated. Then, with the user's explicit consent, the PISP gains access to the user's online banking account, where the PISP fills in all the details necessary to order a payment and then asks the user to confirm the instruction to execute the transfer to the account of the payee (merchant). After the payer's bank confirms the completion of the transaction, the PISP immediately notifies the merchant that the payment has been initiated, and then the merchant proceeds to execute the order and delivers the goods or service to the user.

New commercial banks have recently begun implementing the PISP solutions for business purposes by adapting their rules and offering the initiation of payment at bank B through online banking of bank A. The solution offers new possibilities related to the execution of instant transfers. The total value of transactions reported as executed by a bank acting as a PIS amounted to PLN 5.8 billion, which is a significant increase compared to previous years.

15. ESG risks

Monitoring of ESG risks

In the fourth quarter of 2022, a survey was conducted on a representative sample of commercial banks in relation to compliance with regulations on the management of ESG risks.

The survey also explored the status of implementation of good practices for banks in the area of management of ESG risks, indicated by the European Banking Authority in its publication: *EBA Report on management and supervision of ESG risks for credit institutions and investment firms*[5].

The results of the UKNF's survey allowed to conclude that as at the date of the survey the domestic commercial banks selected for the sample showed a high level of awareness of the ESG regulations and were relatively well prepared to comply with the requirements in question. Very few entities failed to comply with certain requirements.

The survey also revealed some banks' difficulties in the collection and processing of data on environmentally sustainable financial products they were offering. As regards the part of the survey relating to quantitative data, in the case of some entities the data were not available.

Remuneration and gender pay gap[6]

In 2022, five members of management staff at commercial banks and branches of credit institutions[7] received total remuneration of more than EUR 1 million.

[5] https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Reports/2021/1015656/EBA%20Report%20on%20ESG%20risks%20management%20and%20supervision.pdf

[6] The diagram does not include information about the entities that did not submit quantitative data or the ones that do not have a representative sample of relevant staff members.

[7] In accordance with the Banking Law, banks and branches of credit institutions must submit relevant reports in relation to persons whose professional activity has a material effect on the entity's risk profile.

An increase by two individuals in this category compared to 2021. For employees of commercial banks, the average remuneration was slightly higher in relation to 2021 (EUR 1.16 million vs EUR 1.1 million).

In 2022, as regards the gender pay gap, the relation of the average total remuneration of women to the average total remuneration of men was:

- 91% in the sub-sector of commercial banks
- 83% in the sub-sector of branches of credit institutions.

Diagram 81 Relation of average remuneration of women to average remuneration of men

The level of the pay gap in 2022 was similar to the level in 2021 (91% and 85%, respectively).

In relation to the gender pay gap, banks and branches submitted information inconsistently (both qualitative and quantitative information, which was partly supplemented with the UKNF's own calculations based on information submitted by the banks and branches). As at the date of this report, the legislation did not specify the manner of reporting the gender pay gap.[8]

[8] Article 9ca(5) of the Banking Law stipulates only that the bank must submit information about the gender pay gap.

LIST OF TABLES

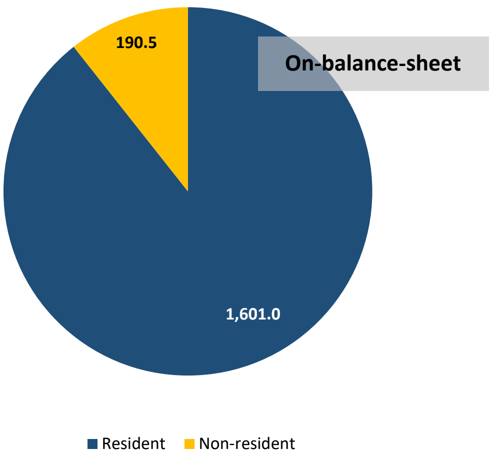
LIST OF DIAGRAMS

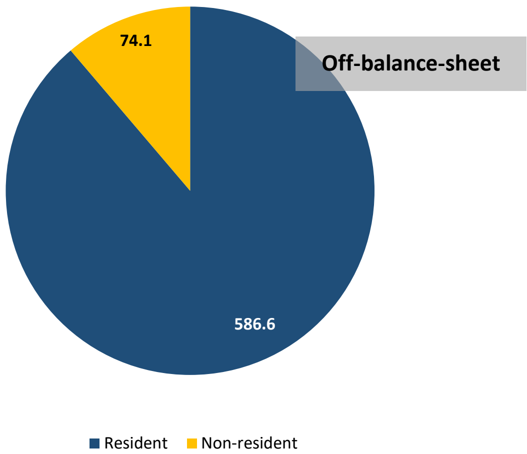
Appendix 1. Commitment of banks[1] to the financing of various industries as at the end of December 2022 and its evolution in the years 2017–2022

The data used in the analysis are derived from the NB300 form on significant exposures in which loans worth more than PLN 500 000 for commercial banks and PLN 100 000 for affiliated cooperative banks are recognised.

At the end of 2022, the total exposure of the banking sector amounted to PLN 2 452.2 billion, which corresponds to an annual increase of 14.6%. The increase concerned both the on-balance-sheet commitment (+12.8%) and off-balance-sheet exposure (+19.8%).

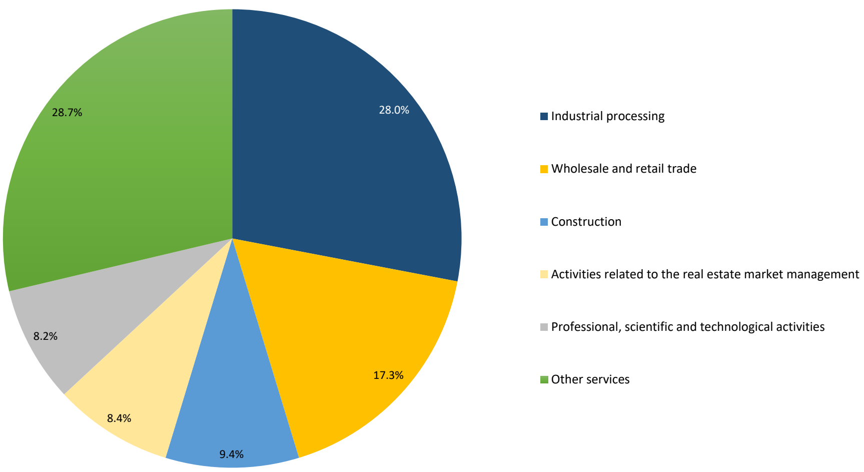
Diagram 1 On-balance-sheet and off-balance-sheet exposures (PLN billion – December 2022)





The financing of the general government sector and financial sector is characterised by good quality due to lower exposure to risk (at the end of 2022, the share of Stage 3 receivables amounted to 0.23% and 0.11%, respectively) – this is why the further analysis focuses on the financing of the non-financial sector.

Diagram 2 Exposure to the non-financial sector (PLN billion – December 2022)

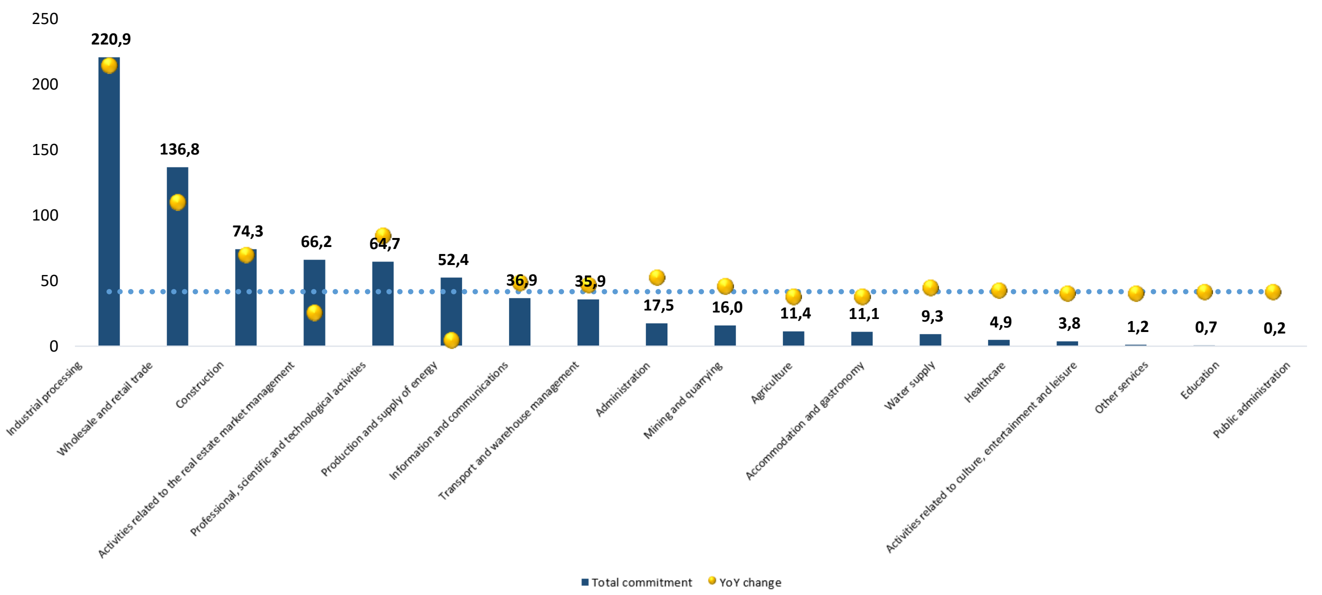


At the end of 2022, the highest engagement of funds to the non-financial sector occurred for industrial processing (PLN 220.9 billion). This industry also recorded the highest YoY increase

[1] Understood as commercial banks, branches of credit institutions, and branches of foreign banks.

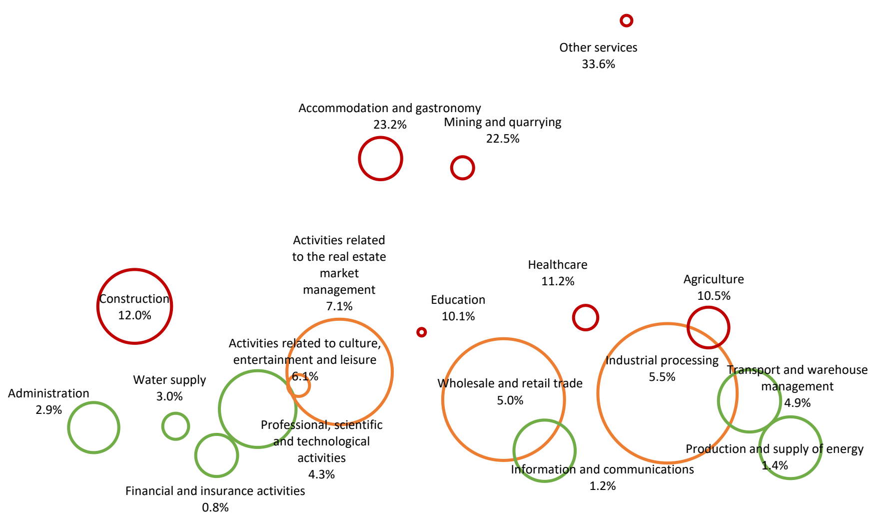
in financing (by PLN 41.5 billion, i.e. 23.2%); a material YoY increase occurred also in the financing of professional activities industry (by PLN 10.3 billion, i.e. 18.9%).

Diagram 3 Exposure to the non-financial sector – value at the end of 2022 and the YoY change (PLN billion)



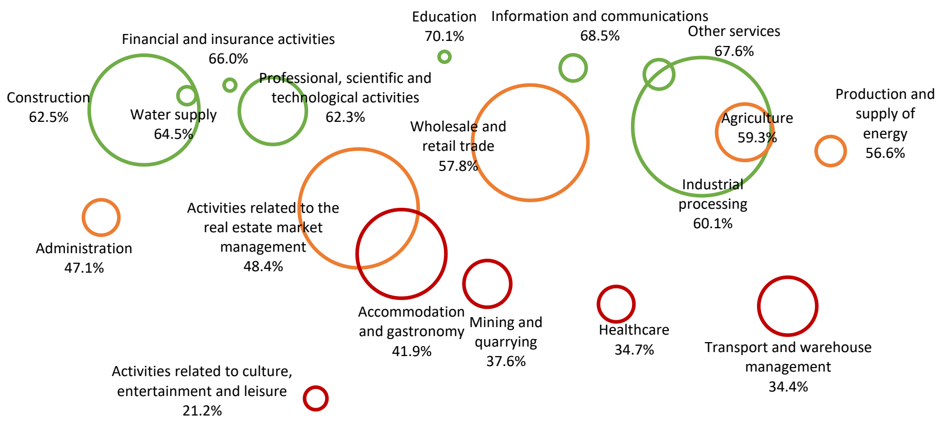
In terms of quality of receivables, the worst results are recorded in accommodation and gastronomy, and mining, where the shares of Stage 3 receivables exceeds 20%. There was a material deterioration of quality of exposures to the other services industry (however, the low total exposure amount should be taken into account). The average share of Stage 3 receivables in all industries is 6.1%, with the level of 5–6% in industries with the highest exposure amount.

Diagram 4 Value of loans and share of Stage 3 loans (December 2022)



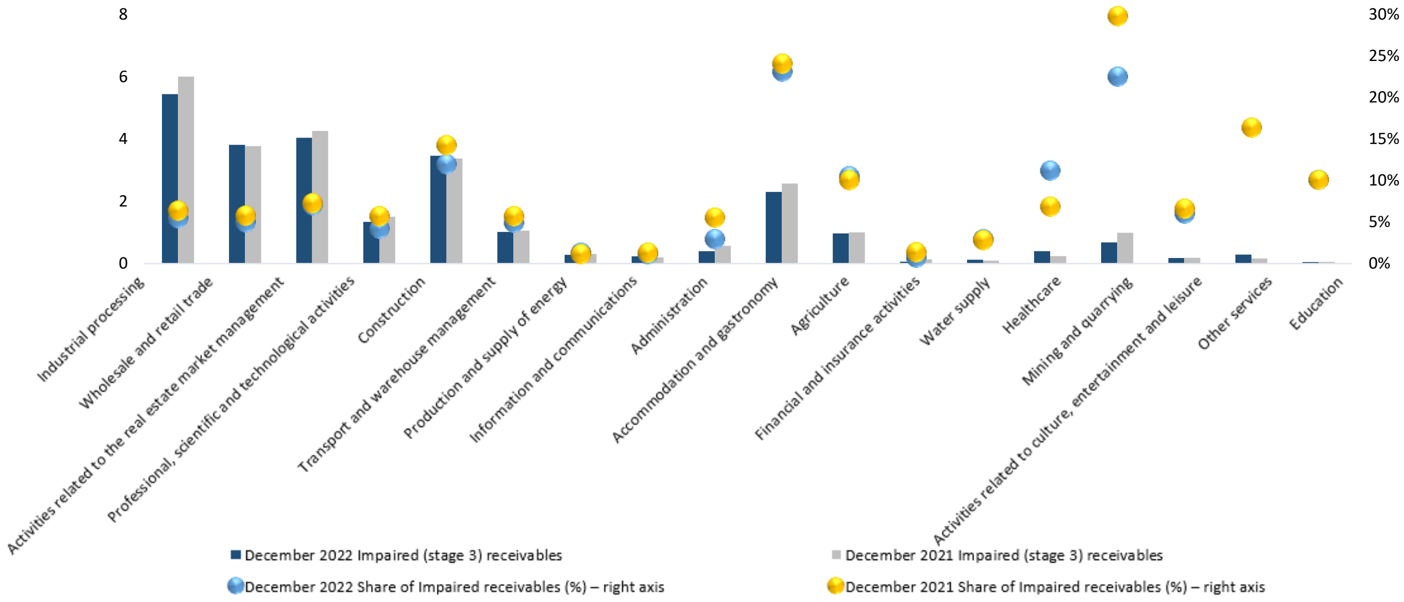
The average Stage 3 receivables to write-offs ratio at the end of 2022 was 54%, with a quite low ratio in transport and warehouse management (34.4%), mining and quarrying (37.6%), accommodation and gastronomy (41.9%). High ratios occur in construction (62.5%), professional activities (62.3%), and industrial processing (60.1%).

Diagram 5 Stage 3 loans to write-offs (December 2022)



In 2022, a slight decrease could be seen in the value and share of Stage 3 receivables for major industries. A material improvement of quality of receivables can be seen in mining and quarrying and an improvement in accommodation and gastronomy.

Diagram 6 Value and share of Stage 3 receivables (PLN billion and %)

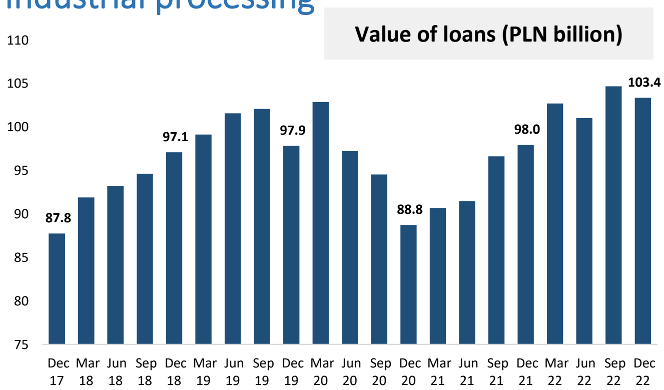


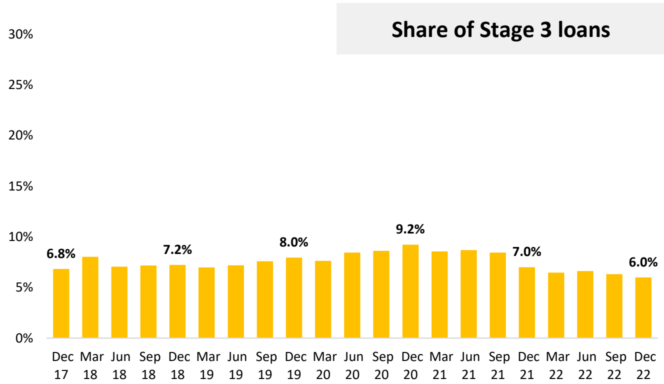
The further part shows the evolution of the level of financing of various industries and the quality of related receivables in the last 5 years. Due to the specificity of entities classified into financial activities and insurance activities, and public administration, these sections have not been included in the breakdown below, and the analysis is limited to non-financial sector entities. The diagrams show the total carrying amount of loans and other receivables of each industry and the quality of the loan portfolio measured by the share of exposures classified as Stage 3 in the total exposures[2]. Differences in the values in relation to the data shown on previous pages results from the inclusion of cooperative banks, while diagrams 1–6 were related to commercial banks, branches of credit institutions, and branches of foreign banks.

During the period under assessment, the hierarchy of industries according to the value of exposure was stable. Between the end of December 2017 and the end of December 2022, the fastest increase in the value of exposures was recorded in relation to entities in the administration section. The value of exposures of the banking sector to the entities in that industry increased by 62.8%, from PLN 8.8 billion at the beginning of the period to PLN 14.3 billion at the end of the period. Three industries recorded a decrease in financing in the last five years: mining (-55.9%), education (-4.8%) and other services (-3.5%).

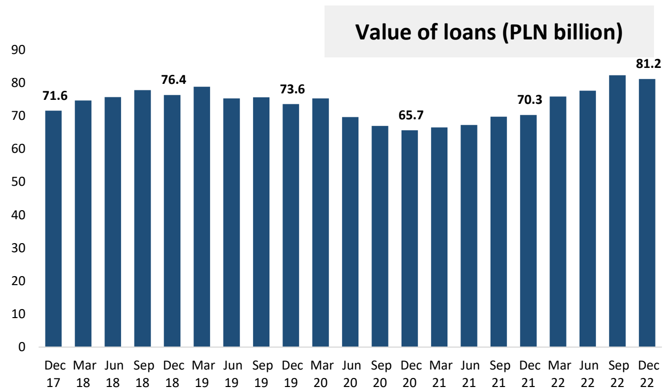
During the period under assessment, the hierarchy of industries according to the credit quality remained stable, although with certain exceptions. The industries with the lowest credit quality still included mining and quarrying, accommodation and gastronomy; there was a material improvement in the quality of exposure to entities in the construction industry, production and supply of energy, as well as quality of loans granted to entities engaged in professional, scientific and technological activities, which is related to, among other things, the fastest growth in lending activities for that industries.

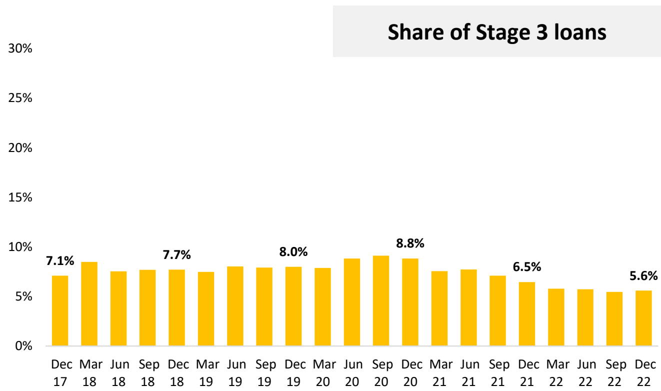
Industrial processing





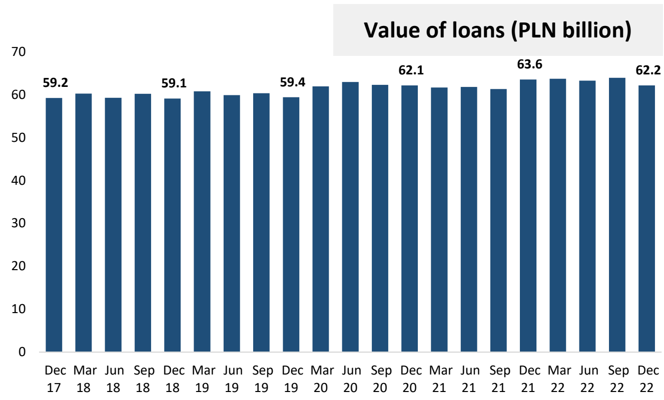
Wholesale and retail trade

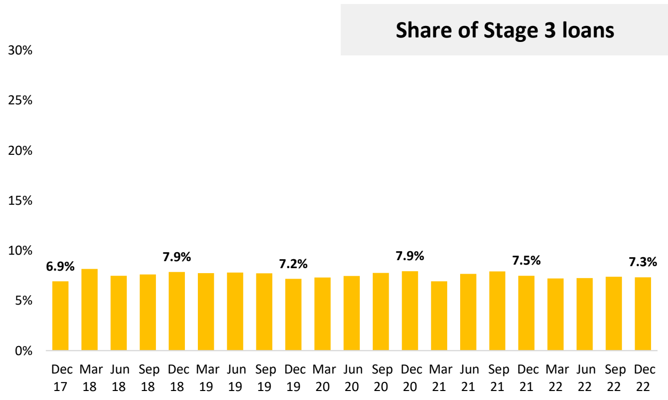




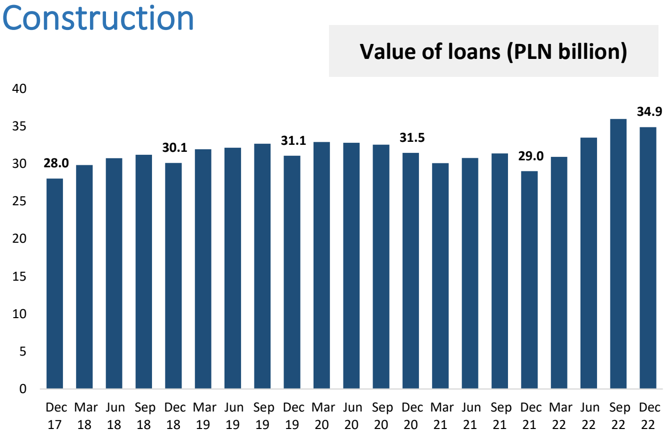
[2] Due to differences in the value of exposures to each industry, various scales have been used in the diagrams showing the value of exposures. To facilitate the comparison of credit quality in each industry, a single scale (0–30%) has been used in the diagrams showing the share of Stage 3.

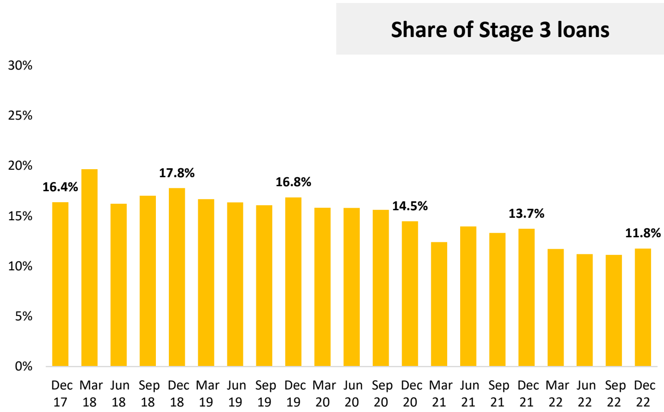
Activities related to the real estate market management



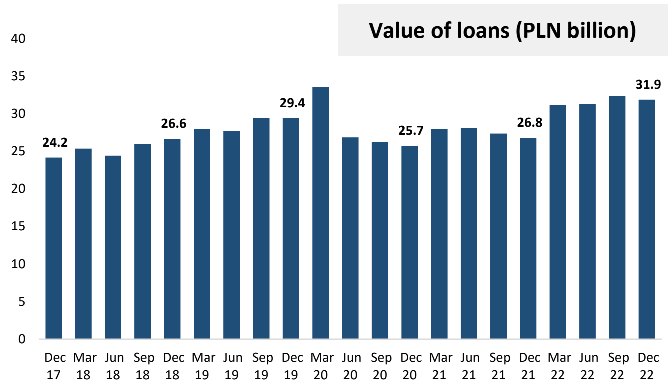


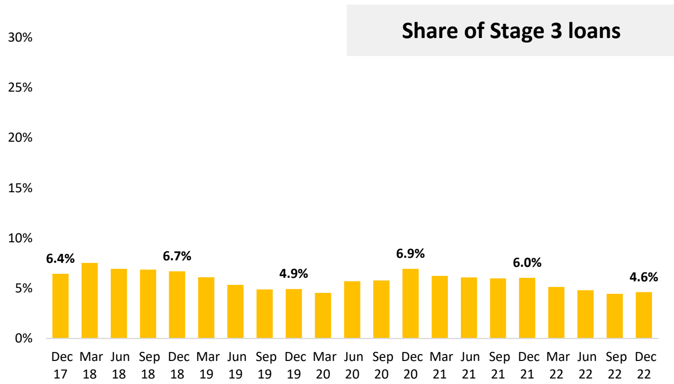
Construction



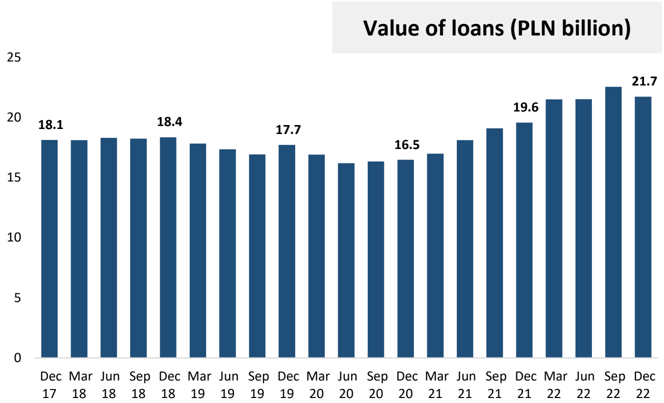


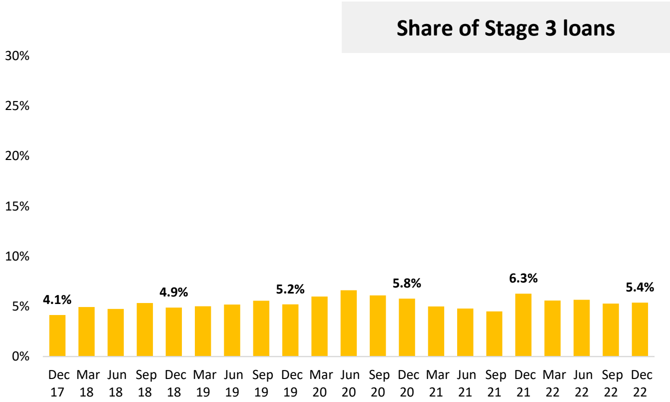
Professional, scientific and technological activities



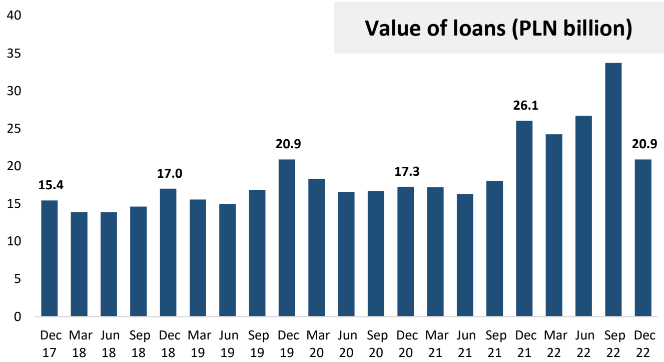


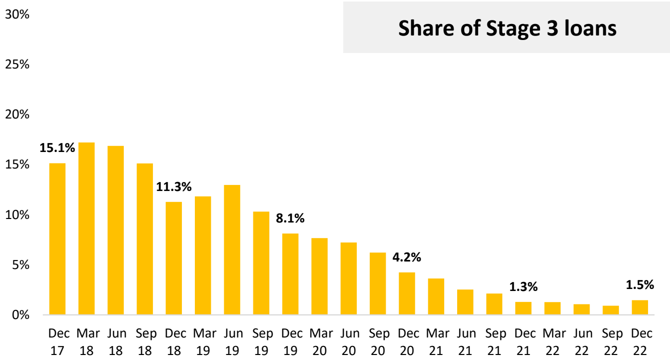
Transport and warehouse management



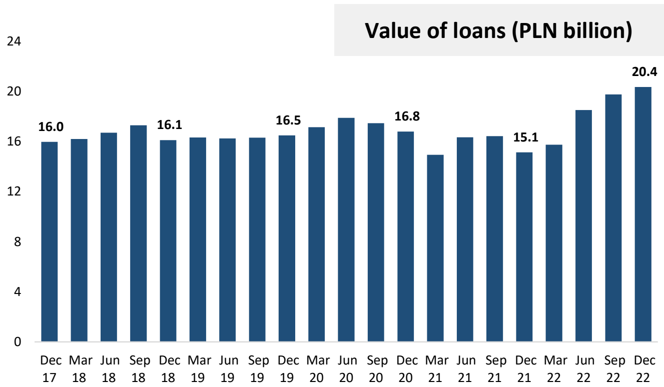


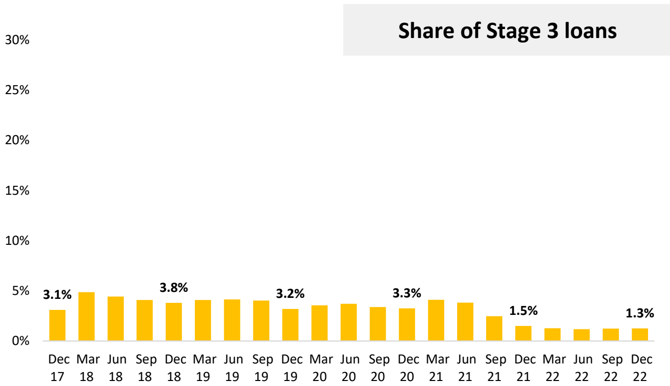
Production and supply of energy



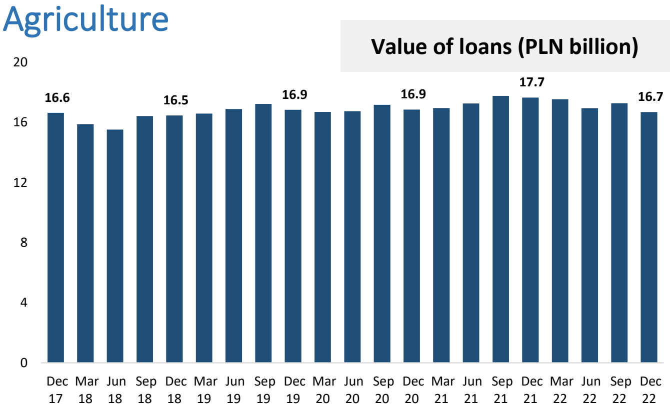


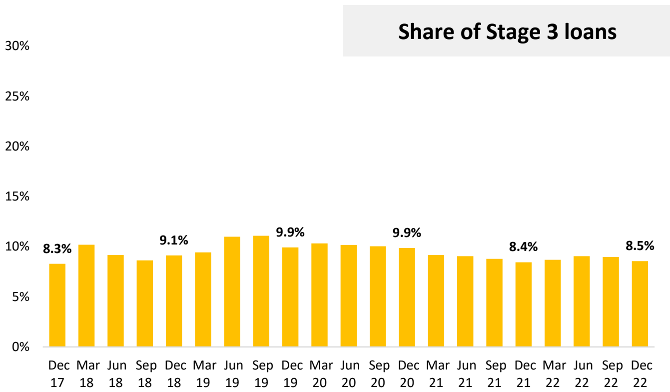
Information and communications



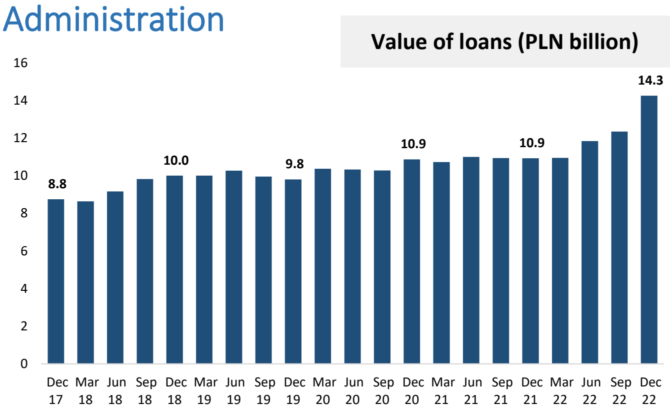


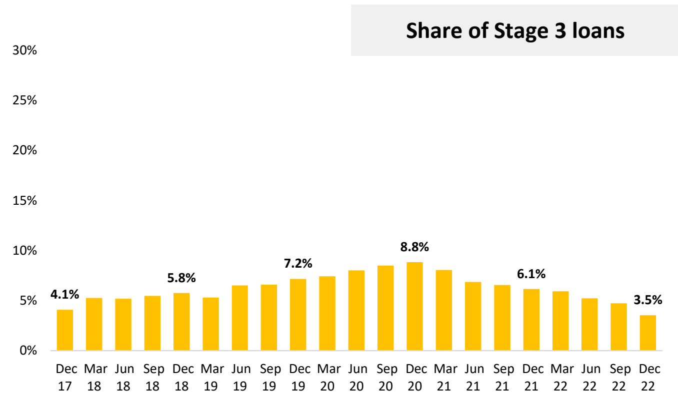
Agriculture



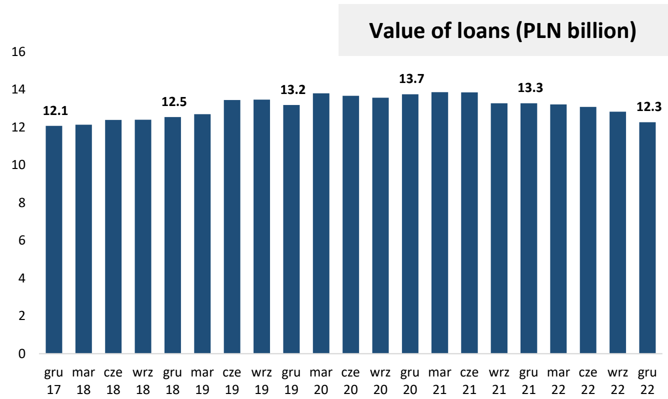


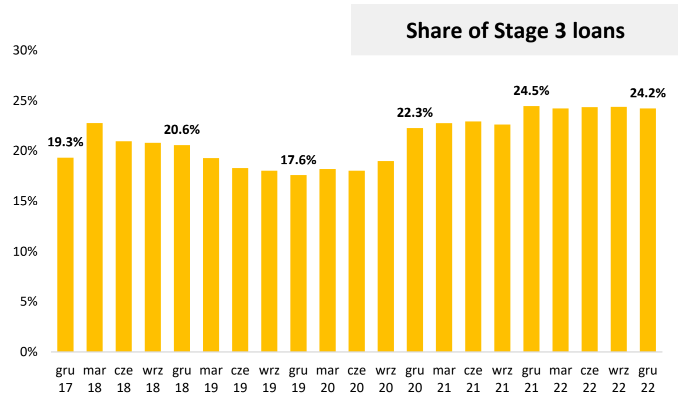
Administration



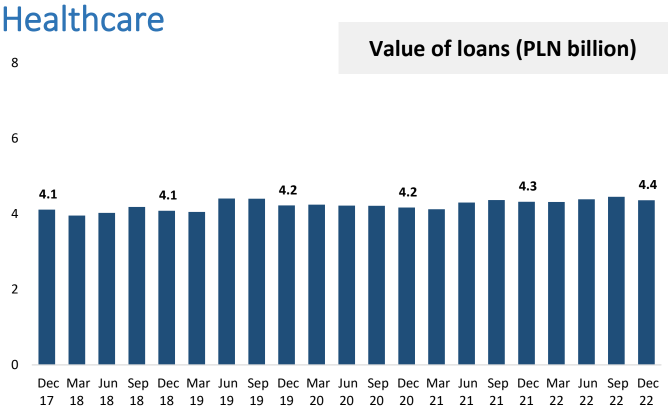


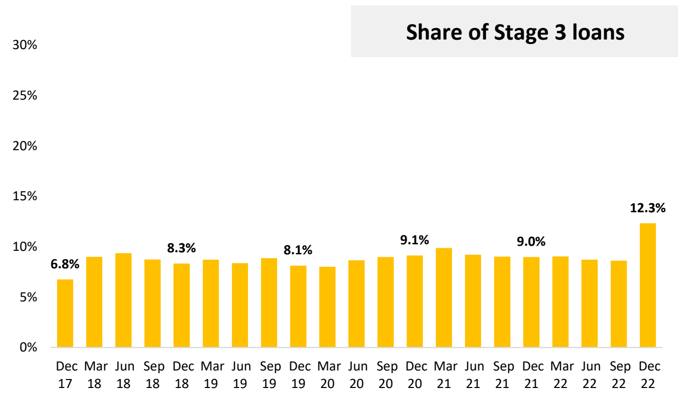
Accommodation and gastronomy





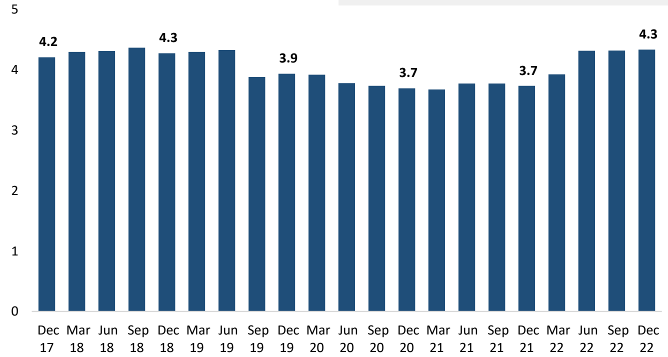
Healthcare



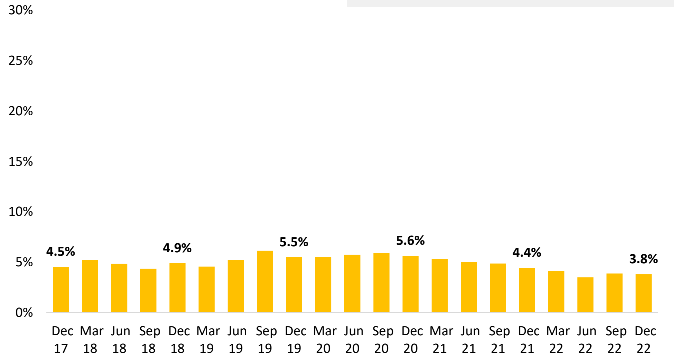


Water supply

Value of loans (PLN billion)

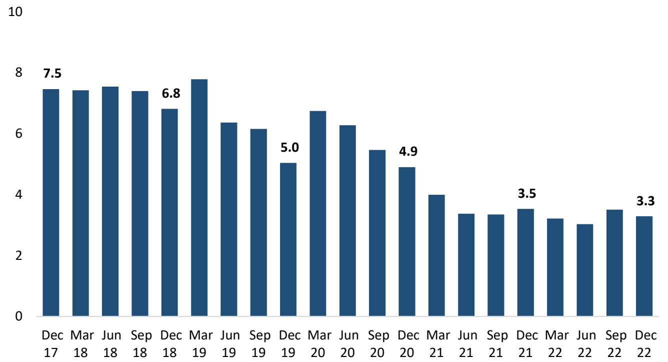


Share of Stage 3 loans

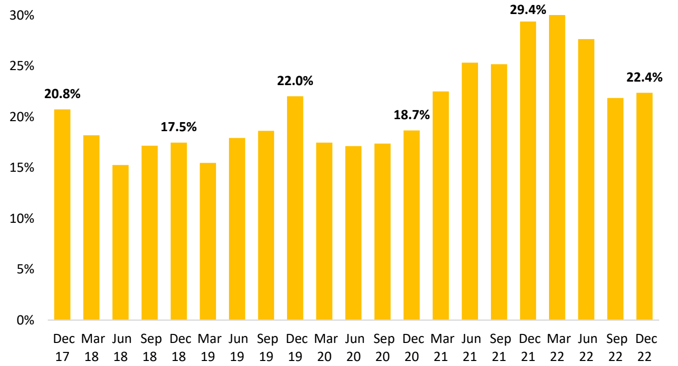


Mining and quarrying

Value of loans (PLN billion)

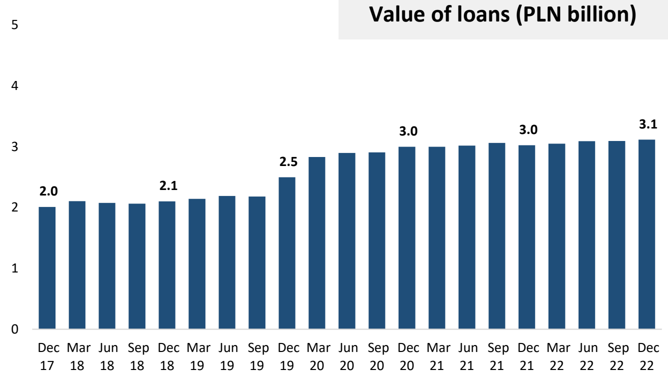


Share of Stage 3 loans

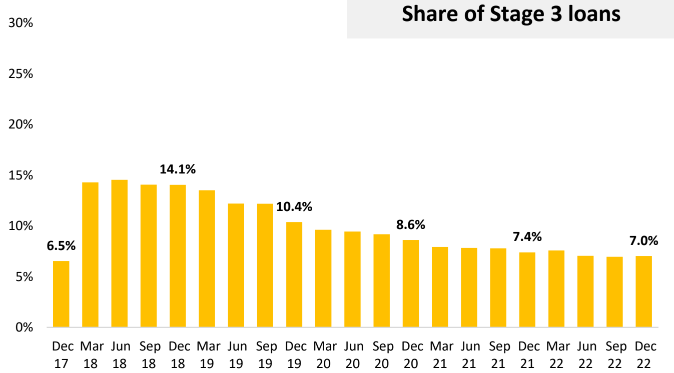


Activities related to culture, entertainment and leisure

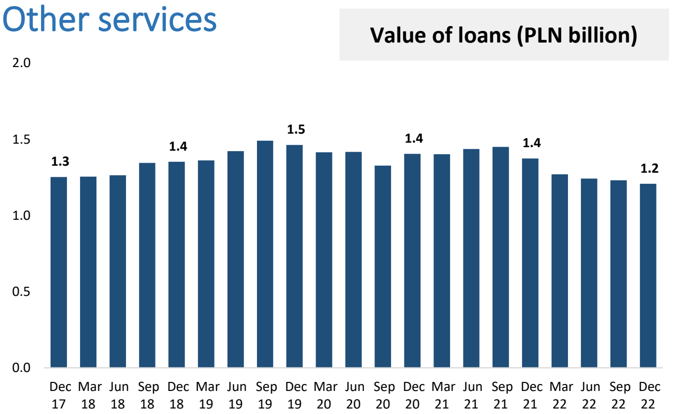
Value of loans (PLN billion)

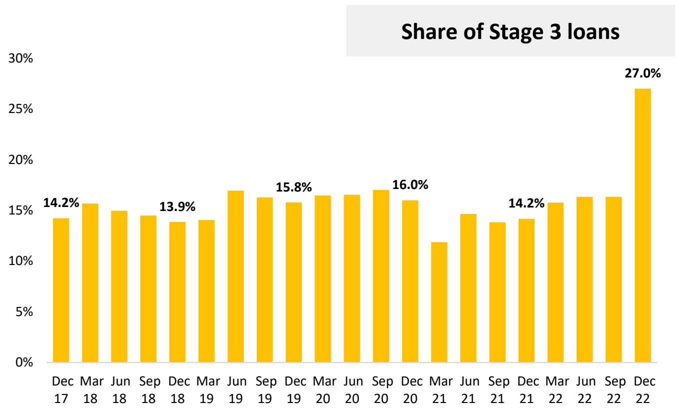


Share of Stage 3 loans

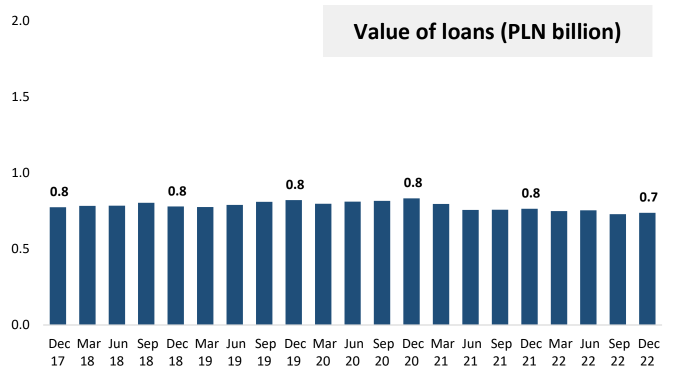


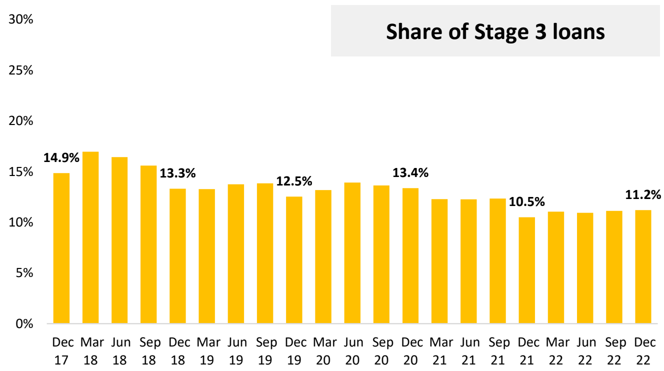
Other services





Education





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