UKNF URZĄD KOMISJI NADZORU FINANSOWEGO

INFORMATION ON THE SITUATION OF THE BANKING SECTOR IN 2021

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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 2021. The events that occurred after the cut-off date have not been included in the report.

Essential information

The situation of the Polish banking sector in 2021 was affected mainly by the consequences of the recovery of the Polish economy from the COVID-19 pandemic and the persisting legal risk related to the portfolio of mortgage-backed foreign-currency home loans (hereinafter: 'RRE (FX) portfolio'). The most important factors affecting the performance of banks included:

- acceleration in lending, mostly in the area of real estate loans to households;
- a threefold rise in the reference rate announced by the Monetary Policy Council on: 7 October (by +0.40 pp); 4 November (by +0.75 pp), and 9 December (by +0.50 pp) up to 1.75%;
- expiration of moratoria (the active moratoria at the end of 2021 in the amount of PLN 935 million accounted for only 0.1% of the entire portfolio of loans to the non-financial sector);
- a material increase in the number of court cases related to the RRE (FX) portfolio, resulting in a material increase in the level of provisions of banks exposed to the risk arising from that portfolio;
- acceleration of the process of entering into settlement agreements by borrowers who contracted foreign-currency mortgage loans, and the related process of converting foreign-currency loans into loans in the Polish currency.

In 2021, Komisja Nadzoru Finansowego (hereinafter: 'KNF' or 'supervisory authority') took actions to improve the security of the banking sector by strengthening the banks' capital base.

In its Communication of 16 December 2020, the KNF called on commercial banks to refrain from paying the dividend in the first half of 2021 and from taking other actions, in particular those outside the scope of the current business and operational activities, which might reduce their capital base. In its Position on the dividend policy of commercial banks in the second half of 2021, published on 24 June 2021, the KNF found it necessary to incorporate, in the dividend policy, criteria relating to specific risks related to the portfolio of foreign-currency home loans and to the COVID-19 pandemic. In the KNF's Position of 9 December 2021 on the dividend policy of commercial banks for 2022, the criteria were extended to include credit risk related to the increase in interest rates.

The most important data on the banking sector in 2021:

- Stable structure of the banking sector: no change in the number of commercial banks, an increase in the number of branches of credit institutions by 1, a reduction in the number of cooperative banks by 19 – in accordance with the trend prevailing in recent years.

- 2021 was another year marked by a reduction of the banking network and a decline in the employment rate.
- 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 2021 amounted to PLN 5 976.0 million and was higher by PLN 6 298.0 million than in 2020, when the banking sector reported a loss.
- Material improvement in banks' efficiency. ROE increased over the year from -0.1% to 3.1% at the end of December 2021.
- Gross receivables (except for debt securities) from the non-financial sector increased over the year by PLN 55 billion (by 4.8%).
- The quality of receivables (except for debt securities) from the non-financial sector improved: the share of Stage 3 receivables decreased from 6.95% at the end of 2020 to 5.77% at the end of 2021, and the improvement occurred for receivables from both enterprises and households.
- Deposits of the non-financial sector increased by PLN 114.4 billion (+8.0% YoY) on a yearly basis, which caused the loan-to-deposit ratio to decrease in that period by 2.0 pp to 74.2% at the end of 2021.
- In 2021, the equity situation of the banking sector remained stable. The value of the sector's own funds at the end of 2021 was equal to PLN 218.8 billion (-5.3% YoY). The total capital ratio (TCR) at the end of 2021 for the entire banking sector was 19.3% (-1.4 pp YoY).
- The total amount of exposure to risk increased by 1.4% YoY.
- At the end of 2021, 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 176% at the end of 2021.
- In 2021, the very rapid increase in liquid assets (resulting from the inflow of aid measures applied in response to the outbreak of the COVID-19 pandemic) slowed down but the liquidity position in the commercial banks sector in 2021 was very good.
- The net stable funding ratio (NSFR) in the commercial banks sector has been above 100% for years. At the end of 2021, the ratio reached 147%[1].

[1] The NSFR became the standard for banks in June 2021.

1. Banking sector structure

At the end of 2021, 578 entities were active in the banking sector.

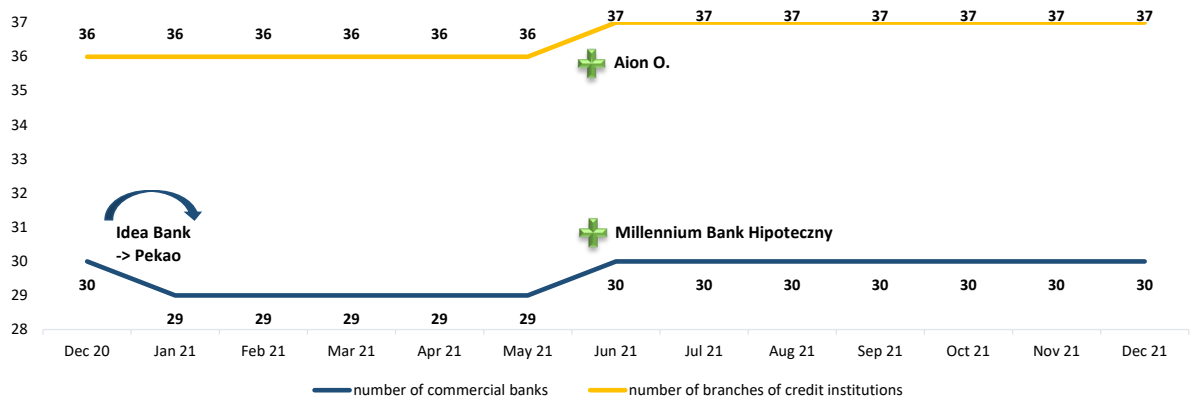
Table 1 Number of banking sector entities

Number of banking sector entities	Dec 21	Dec 20	change
Commercial banks	30	30	0
Branches of credit institutions	37	36	1
Cooperative banks	511	530	-19
Total	**578**	**596**	**-18**

In the recent year, no major changes occurred in the banking sector structure. However, a few transformations took place in 2021:

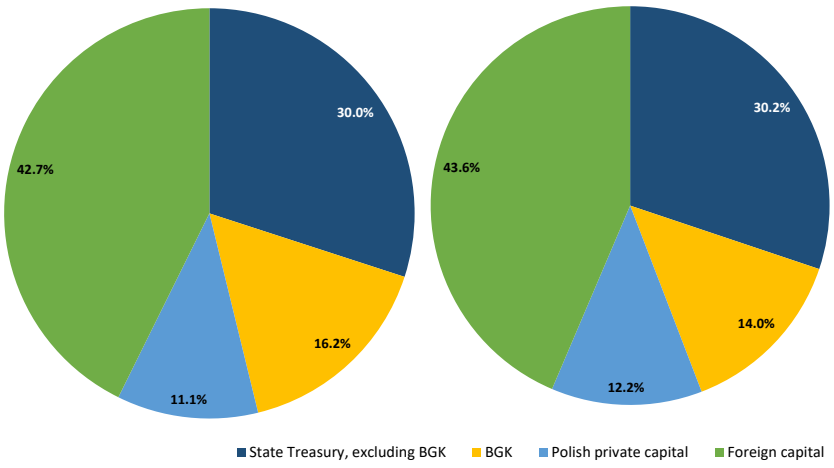
- the compulsory restructuring of Idea Bank and its take-over by Pekao,
- the start of activities of Millennium Bank Hipoteczny,
- the start of activities of Aion Oddział w Polsce.

Diagram 1 Change in the banking sector structure



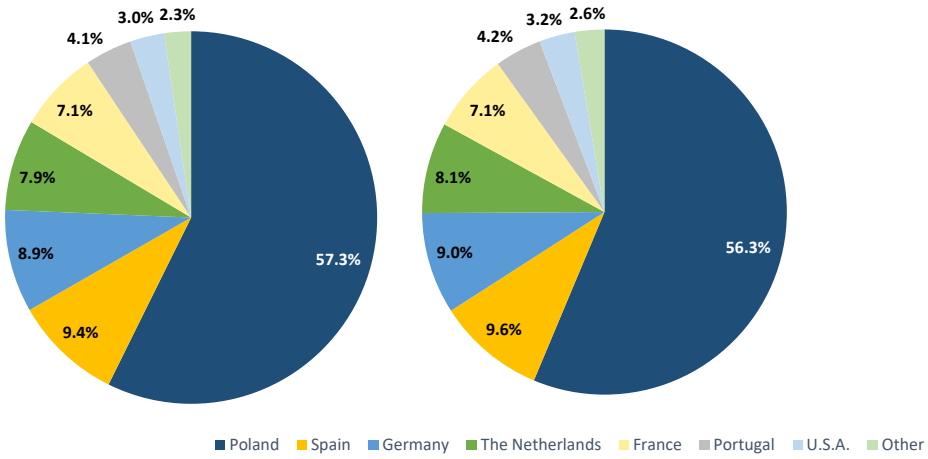
The changes did not greatly affect the structure of the banking sector's assets by country of origin of capital.

Diagram 2 Capital origin (share in assets – December 2021 and December 2020)



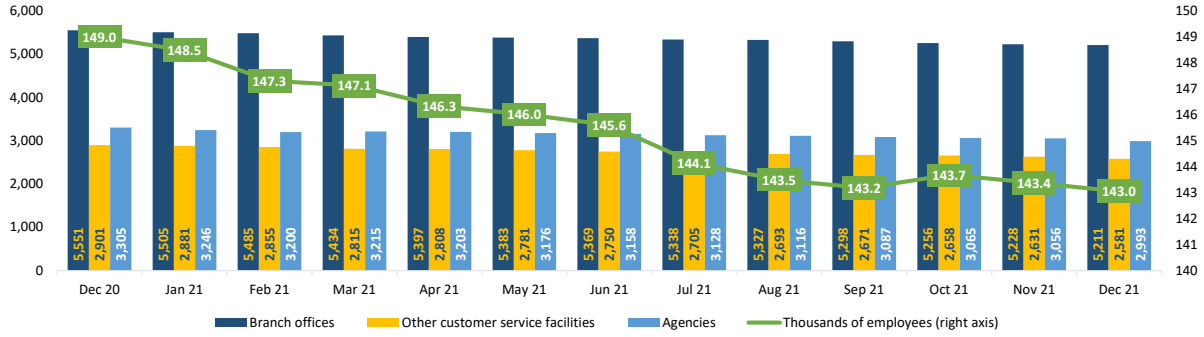
For years, the major sources of capital from foreign investors have been Spain, Germany, the Netherlands, and France. The distribution of investors (by country of origin) has not changed significantly. In 2021, there was a slight decrease in the share of investors from all major countries being present in the Polish banking sector (except for France).

Diagram 3 Country of origin of capital (share in assets – December 2021 and December 2020)



2021 was another year marked by a reduction of the banking network and a decline in the employment rate. In recent years, the phenomenon was mainly driven by the development of online and mobile distribution channels and the efforts to improve viability through cost reduction. In the years 2020–2021, the factors were further reinforced by measures to adapt to the reality of the pandemic.

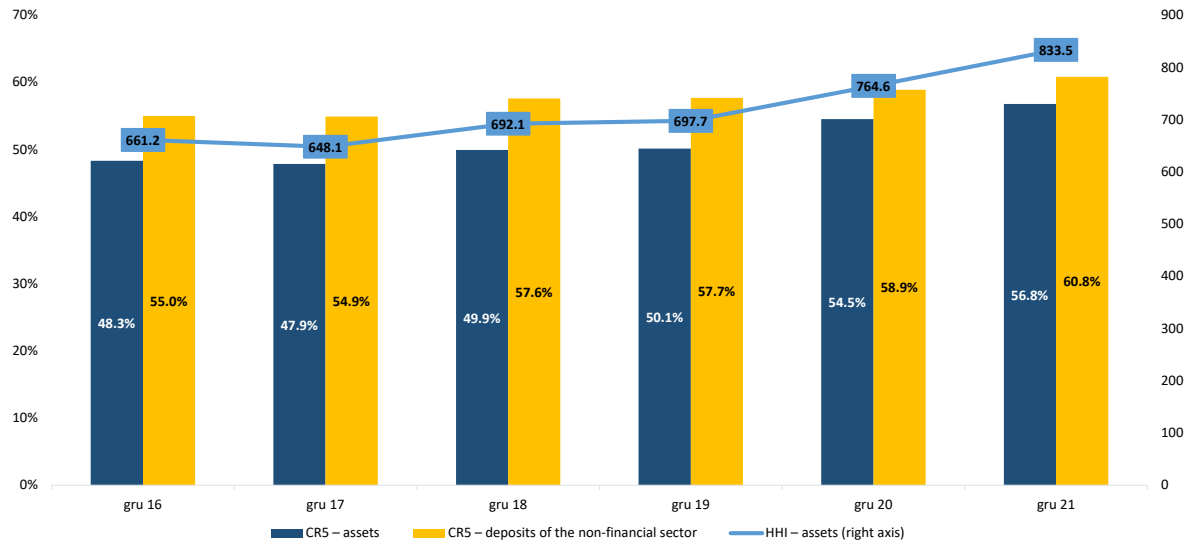
Diagram 4 Banking network and employment in the banking sector



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 833.5. 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 (in PLN million)

Item	Dec 16	Dec 17	Dec 18	Dec 19	Dec 20	Dec 21	YoY change 2021/2020	
	(PLN million)						(PLN million)	(%)
Total operating income	**61 771.8**	**64 013.9**	**64 565.1**	**70 627.0**	**61 964.2**	**67 371.6**	5 407.5	**8.7%**
net interest income	38 024.1	42 618.9	44 820.3	49 115.7	47 138.9	46 607.5	-531.3	-1.1%
net fees and commission income	12 591.8	13 764.3	12 306.1	13 363.4	14 849.8	17 155.7	2 305.9	15.5%
dividend income	1 308.3	1 168.5	1 505.7	2 129.6	916.3	1 452.4	536.0	58.5%
other	9 847.7	6 462.2	5 933.0	6 018.4	-940.8	2 156.0	3 096.9	-
Operating expenses and depreciation	**34 575.4**	**36 010.2**	**36 365.9**	**39 247.4**	**39 299.7**	**40 096.8**	**797.2**	**2.0%**
staff expenses	15 727.2	16 643.2	16 991.0	17 748.4	17 450.3	18 337.9	887.5	5.1%
other administrative expenses	15 935.5	16 418.2	16 469.8	17 069.9	17 256.3	17 121.2	-135.1	-0.8%
depreciation	2 912.6	2 948.8	2 905.1	4 429.1	4 593.0	4 637.8	44.7	1.0%
Provisions	1 133.5	728.4	628.9	2 405.5	5 495.9	8 317.4	2 821.5	51.3%
Impairment	7 977.9	8 860.3	9 430.5	9 566.1	13 348.2	7 147.2	-6 201.1	-46.5%
NET FINANCIAL RESULT	**13 897.7**	**13 686.6**	**13 046.2**	**13 806.2**	**-322.0**	**5 976.0**	**6 298.0**	**-**
commercial banks	12 982.6	12 652.3	12 215.5	13 242.5	-652.0	6 121.3	6 773.3	-
cooperative banks	580.4	629.0	638.0	588.1	472.6	703.1	230.5	48.8%
branches of credit institutions	334.6	405.3	192.8	-24.4	-142.7	-848.4	-705.7	-

Net financial result of the banking sector in 2021 amounted to PLN 5 976.0 million and was higher by PLN 6 298.0 million than in 2020, when banks reported a loss. The higher results in 2021 were reported by both commercial banks and cooperative banks, while loss of branches of credit institutions increased. The decrease in interest expenses by PLN 5 076.1 million in relation to 2020 did not compensate for the decrease in interest income by PLN 5 607.5 million. The total net interest income was by PLN 531.4 million lower (-1.1%) than a year before. That was determined by decisions of the Monetary Policy Council, which gradually reduced interest rates in 2020 due to the COVID-19 pandemic. The record low interest rates persisted until October 2021, when the Monetary Policy Council began tightening the monetary policy. The interest rate increase – due to a short period remaining until the end of the year – had a limited impact on the increase in the YoY net interest income.

The result was materially improved by higher fees and commissions (+PLN 2 305.9 million YoY), lower provisions and write-offs (-PLN 3 379.6 million YoY), and an increase in other operating income (+PLN 3 096.9 million YoY).

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

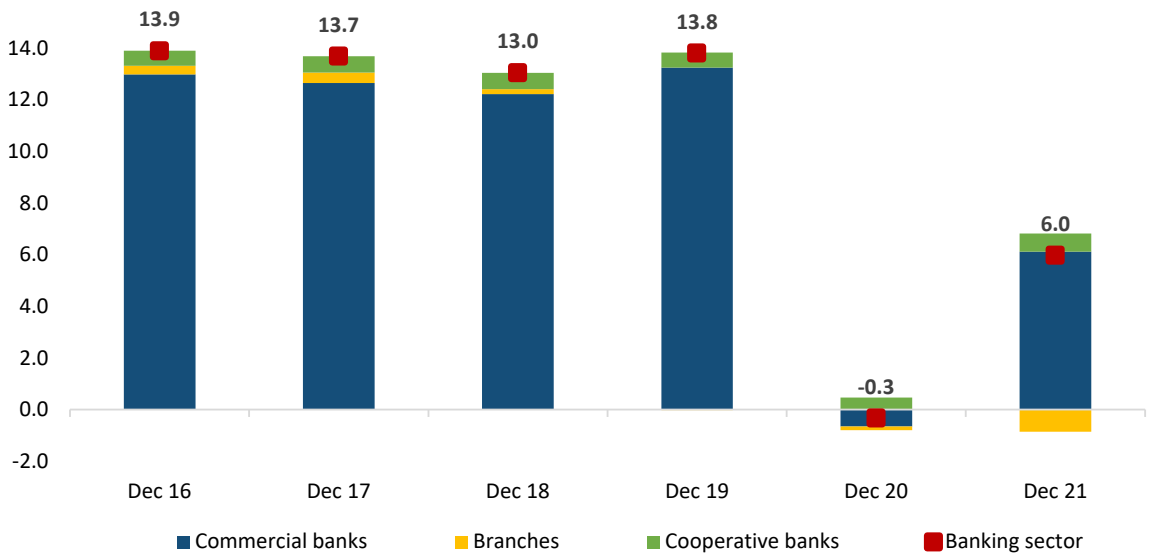


Diagram 7 Banking sector: the net financial result at the end of the period (cumulatively, in PLN million)

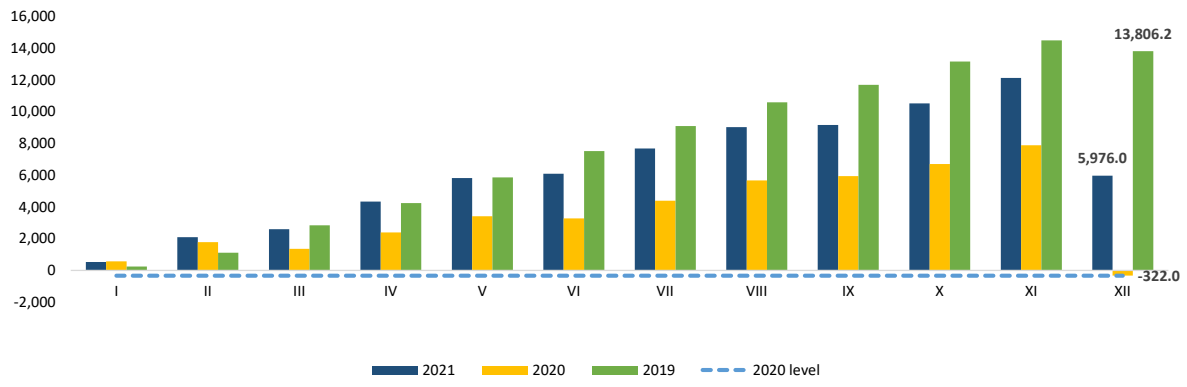


Table 3 Selected items of administrative expenses

Selected items of administrative costs	Dec 16	Dec 17	Dec 18	Dec 19	Dec 20	Dec 21	YoY change 2021/2020	
	(PLN million)						(PLN million)	(%)
Staff expenses	15 727.2	16 643.2	16 991.0	17 748.4	17 450.3	18 337.9	887.5	5.1%
Bank Guarantee Fund	2 396.7	2 102.9	2 116.1	2 760.1	3 221.2	2 256.1	-965.1	-30.0%
Banking tax	3 198.0	3 630.7	3 628.5	4 056.8	4 496.0	4 690.3	194.3	4.3%
IT costs	1 782.5	1 981.4	1 977.9	2 274.0	2 371.4	2 566.9	195.5	8.2%
Third-party services – other	1 903.2	1 952.4	1 962.2	1 994.2	1 923.3	2 046.4	123.1	6.4%
Marketing	1 032.2	1 058.2	1 249.7	1 289.9	905.7	1 019.7	114.0	12.6%
Rents	2 639.6	2 625.6	2 459.8	1 259.9	1 241.5	1 228.8	-12.8	-1.0%
Third-party services – under the Banking Law	719.4	755.1	834.2	821.2	708.0	746.2	38.3	5.4%
Other general management costs	2 264.1	2 311.8	2 241.4	2 613.8	2 438.4	2 566.8	177.7	7.4%

The largest share in banks' administrative costs was taken by staff expenses, which in 2021 increased by 5.1% (i.e. PLN 887.5 million). Most items of general management costs increased moderately. A decrease was recorded in the amount of fees paid for the Bank Guarantee Fund (BGF) by 30.0% (-PLN 965.1 million YoY), which was caused by the decision of the BGF Council to determine a lower contribution to be paid by banks to the BGF in 2021.

Diagram 8 Banking sector: components of the financial result at the end of December 2021 (in PLN million)

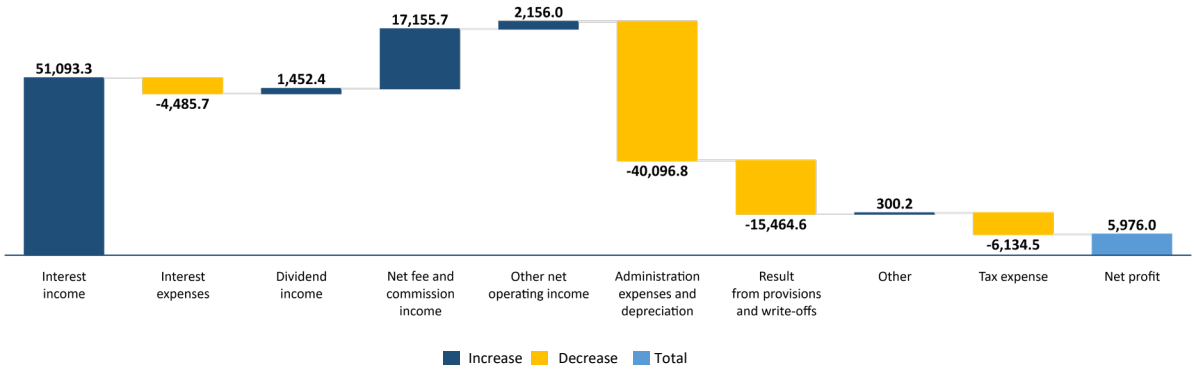
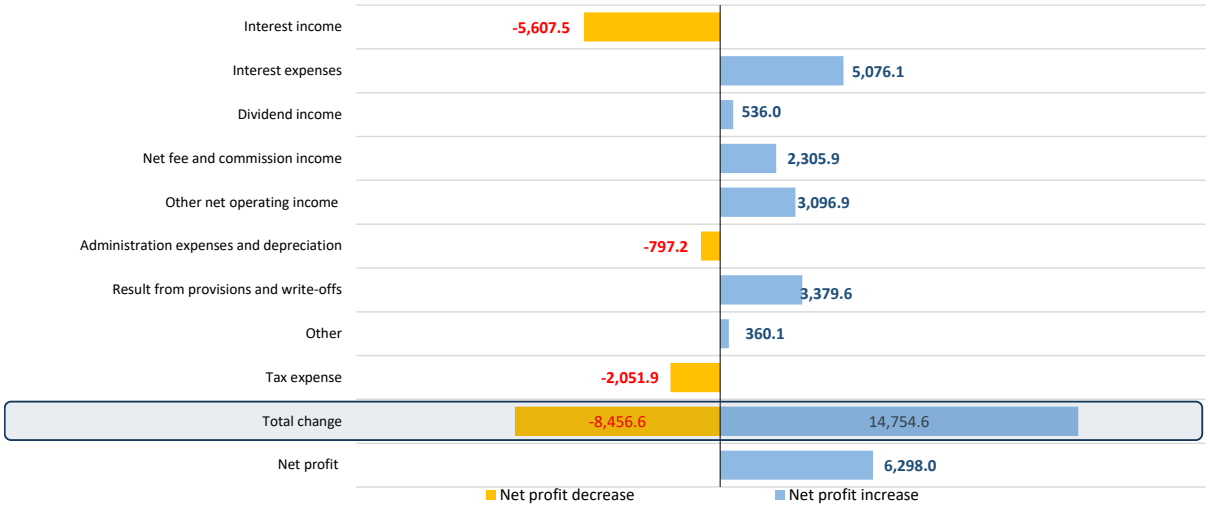


Diagram 9 Banking sector: YoY change of the result (in PLN million)



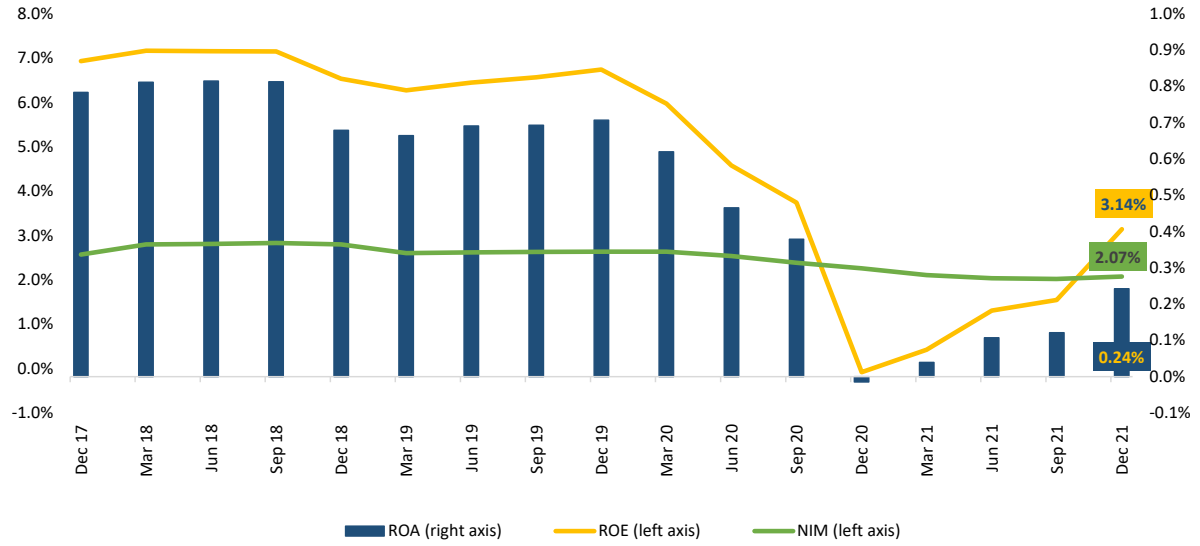
The share of loss-making entities in the assets of the banking sector at the end of 2021 was 15.9%.

4. Profitability of the banking sector

A material improvement in profitability could be seen in 2021. Return on equity (ROE), after reaching the lowest level in December 2020, increased gradually, reaching 3.1% at the end of 2021.

Further improvement of the sector's efficiency is expected in 2022, along with a growing impact of the restrictive monetary policy through interest income on the financial result. Only a slight increase in net interest margin could be seen in the recent year. On the one hand, from October banks' interest income increase, while the costs adapted at a slower rate, which have positive impact on the net interest margin. On the other hand, the share of high-margin products (e.g. consumer loans) systematically decreased in relation to low-margin products (e.g. home loans), which halted the margin increase.

Diagram 10 Efficiency ratios in the banking sector (in %)



ROA and ROE ratios: the relations between the financial result in the last 12 months to average assets and average capital, respectively, in the same period.
ROE refers to the aggregate of commercial and cooperative banking sector (excluding branches of credit institutions), and ROA refers to the entire banking sector.
NIM (net interest margin): the relation between net interest income over the last 12 months to average interest assets in the same period.

Both the most prominent decrease in 2020 and the most prominent improvement in profitability in 2021 occurred in the commercial banks sector. Cooperative banks were characterised by a relatively lower return on assets, and branches of credit institutions reported (in all but one quarter) a negative return on assets.

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

Date	ROA-12M				Net interest margin			
	Sector	Commercial	Branches	Cooperative	Sector	Commercial	Branches	Cooperative
Dec 19	0.71%	0.76%	-0.06%	0.41%	2.63%	2.68%	1.00%	2.83%
Mar 20	0.62%	0.66%	-0.05%	0.41%	2.64%	2.69%	1.00%	2.81%
June 20	0.46%	0.49%	-0.15%	0.41%	2.54%	2.59%	0.97%	2.66%
Sept 20	0.38%	0.39%	0.04%	0.37%	2.38%	2.44%	0.99%	2.42%
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%
June 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%

The cost to operating income ratio decreased in 2021 due to, for example, an increase in the fees and commission income, and higher other operating income. Commercial banks represented the most efficient part of the sector; their cost to income ratio was 56.9%. Both, cooperative banks and branches, were characterised by higher relative operating costs. On

the other hand, the operating income at cooperative banks was less encumbered by the costs of creating new provisions.

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

Date	C/I – costs/income				R/I - (provisions and write-offs)/income			
	Sector	Commercial	Branches	Cooperative	Sector	Commercial	Branches	Cooperative
Dec 19	55.57%	53.24%	79.43%	66.71%	16.95%	17.15%	13.58%	16.91%
Mar 20	64.37%	62.68%	89.39%	67.21%	22.23%	23.71%	14.64%	9.63%
June 20	59.10%	56.73%	81.46%	71.60%	25.02%	27.08%	11.94%	8.88%
Sept 20	58.43%	55.82%	81.36%	73.01%	22.98%	24.98%	9.64%	8.35%
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%
June 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	59.52%	56.89%	78.74%	72.61%	22.95%	23.25%	34.08%	7.67%

C/I ratio: the relation between 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 between 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 2021, the aggregated balance sheet total of the banking sector amounted to PLN 2 572.4 billion and had increased over the year by PLN 222.3 billion (+9.5%), with no material change in the structure of the sector's aggregated balance sheet.

The low interest rate on deposits, including term deposits, throughout 2021 and loans (for the most part of the year – an increase in the NBP reference rate by 1.65 pp in the 4th quarter of 2021) combined with higher inflation and negative real interest rates translated into a significant increase in the volume of residential real estate loans in PLN to households (+PLN 45.8 billion, i.e. +12.8% YoY). The increase in the NBP reference rate also resulted in a significant reduction in the valuation of securities on banks' balance sheets and had a negative impact on their capitals.

Table 6 Balance sheet of the banking sector

	Dec 19	Dec 20	Dec 21	YoY change 2021/2020	
	(PLN billion)			(PLN billion)	(%)
Sector's assets	2 000.1	2 350.0	2 572.4	222.3	9.5%
commercial banks	1 780.2	2 106.0	2 307.9	201.8	9.6%
cooperative banks	150.7	167.2	185.0	17.8	10.7%
branches of credit institutions	69.3	76.8	79.6	2.7	3.5%

Diagram 11 Product structure of the balance sheet (assets – left and liabilities – right) – banking sector; December 2021 (in PLN billion)

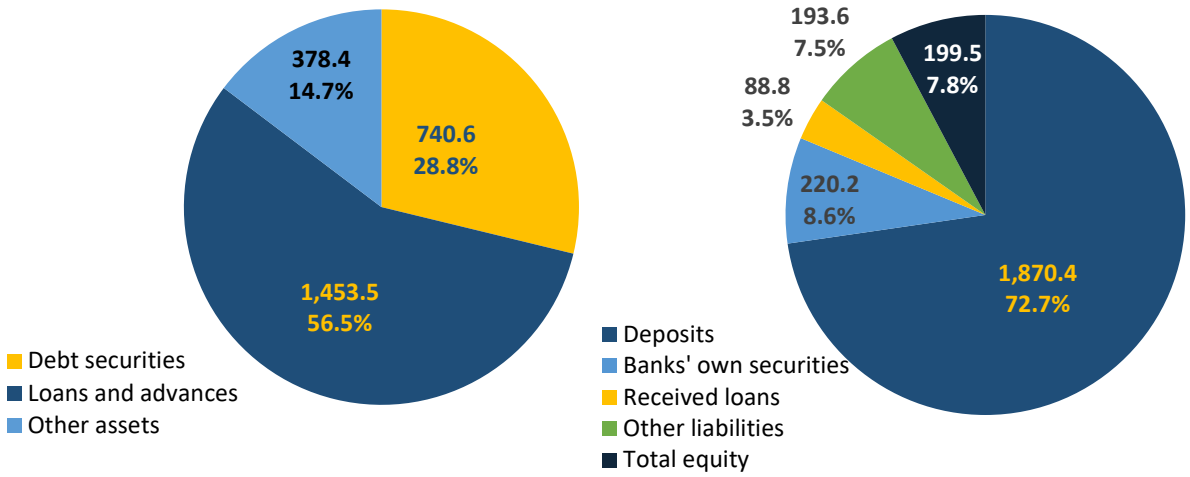


Table 7 Structure of the balance sheet of the banking sector – ASSETS

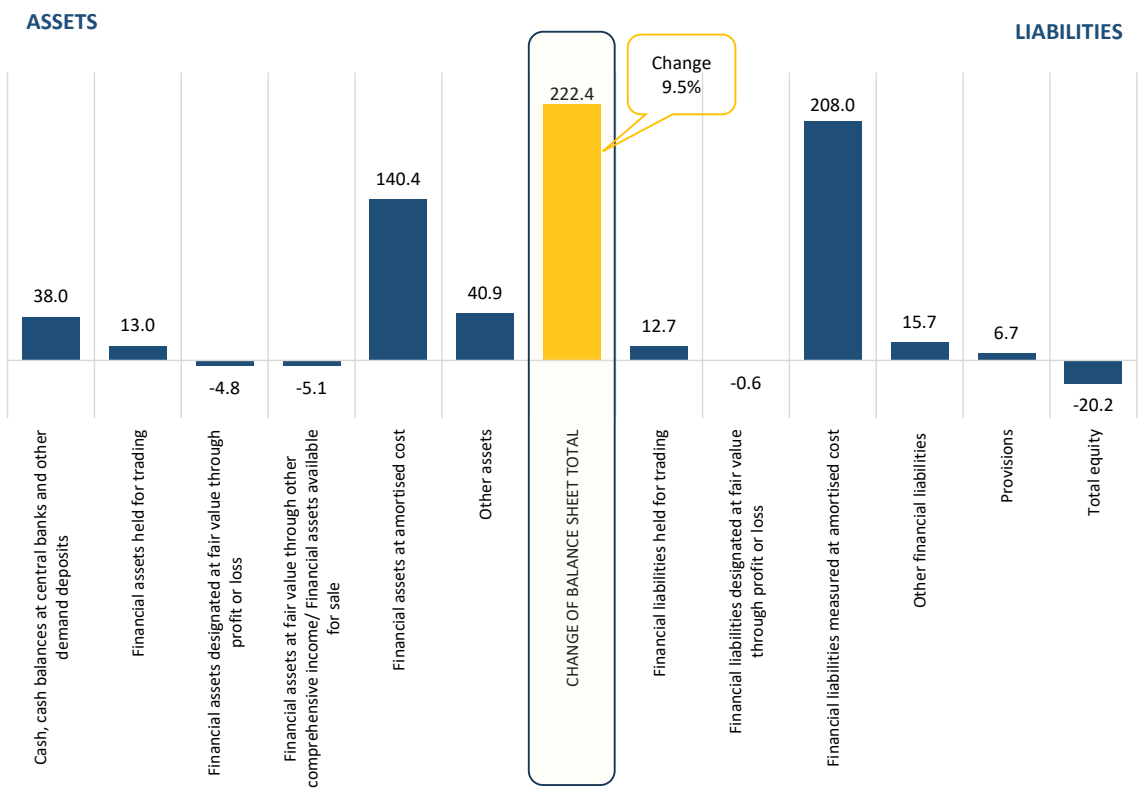
	Dec 19	Dec 20	Dec 21	YoY change 2021/2020	
	(PLN billion)			(PLN billion)	(%)
Cash, cash balances at central banks and other demand deposits	115.2	112.6	150.7	38.0	33.8%
Debt securities	457.8	695.1	740.6	45.5	6.5%
Equity instruments	6.0	6.4	6.0	-0.4	-6.1%
Loans and advances designated at fair value	48.8	55.8	66.8	10.9	19.5%
Loans and advanced at amortised cost	1 291.9	1 288.5	1 363.9	75.4	5.8%
Other assets	80.5	191.6	244.6	53.0	27.7%

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

Table 8 Banking sector balance sheet structure – LIABILITIES

	Dec 19	Dec 20	Dec 21	YoY change 2021/2020	
	(PLN billion)			(PLN billion)	(%)
Deposits	1 487.4	1 697.9	1 870.4	172.5	10.2%
Debt securities issued	92.3	191.1	220.2	29.1	15.2%
Loans from the financial sector	87.3	90.6	88.8	-1.8	-2.0%
Other liabilities and provisions	123.8	150.9	193.6	42.8	28.3%
Total equity	209.3	219.7	199.5	-20.2	-9.2%

Diagram 12 Portfolio structure of the banking sector balance sheet – change in 2021



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.

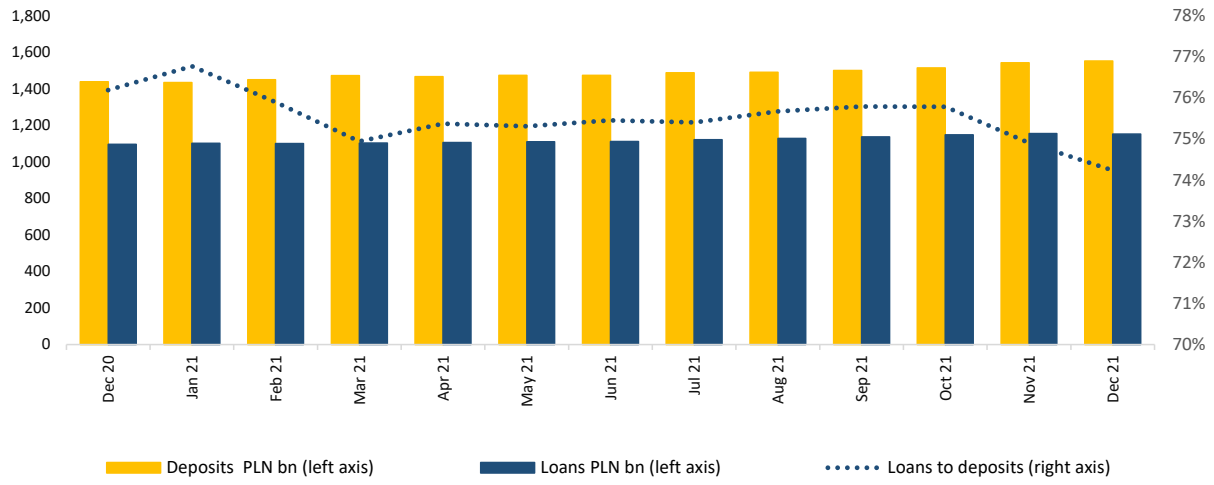
Bank assets are dominated by the 'Loans and advances' category, whose share in the assets at the end of 2021 was 56.5%, 1.5 pp less compared to the end of 2020 due to greater share of items such as: 'Financial assets held for trading' and 'Cash, cash balances at central banks and other demand deposits'.

Table 9 Structure of loans and advances

	Dec 19	Dec 20	Dec 21	YoY change 2021/2020	
	(PLN billion)			(PLN billion)	(%)
Financial sector	177.4	173.9	206.6	32.7	18.8%
General governments sector	104.3	106.7	102.8	-4.0	-3.7%
Non-financial sector	1 083.3	1 083.2	1 144.1	60.9	5.6%

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

Diagram 13 Deposits vs receivables from the non-financial sector (in PLN billion)



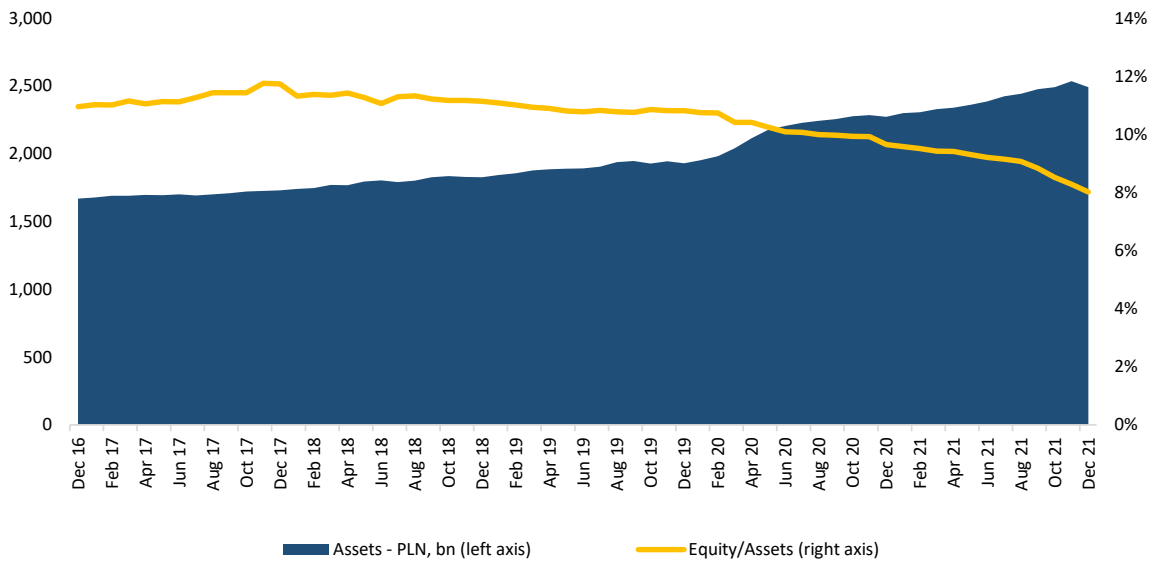
Loans and advances at carrying amount, excluding debt instruments

The second largest category in terms of share in assets is represented by debt securities, which account for 28.8% the sector's balance sheet total. Their share in assets decreased over the year by 0.8 pp, bearing in mind, however, the material impact of interest rate rises in the 2nd half of 2021 on the reduction in the carrying amount of part of the debt securities.

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

	Dec 19	Dec 20	Dec 21	YoY change 2021/2020	
	(PLN billion)			(PLN billion)	(%)
Financial sector, including:	79.7	232.8	303.7	70.9	30.4%
issued by central banks	54.8	121.2	177.2	56.0	46.2%
Non-financial sector	20.0	16.8	18.2	1.4	8.3%
General governments sector, including:	358.1	445.5	418.7	-26.8	-6.0%
issued by central governments	334.0	420.1	393.5	-26.6	-6.3%
issued by local governments	24.1	25.4	25.2	-0.2	-0.8%

Diagram 14 Capitals vs balance sheet total – commercial and cooperative banks



5.1. Receivables from the non-financial sector

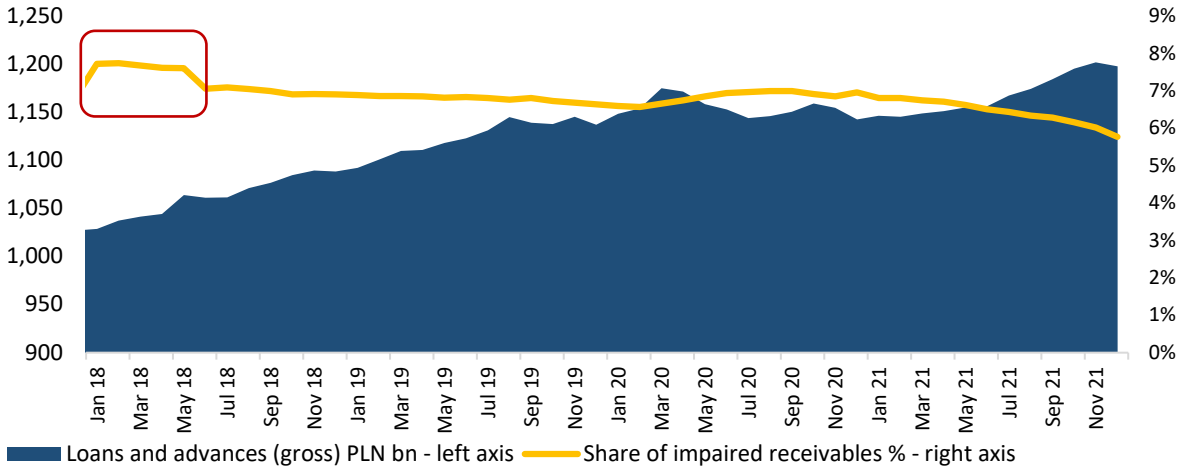
At the end of 2021, the gross carrying amount of loans and advances (in Portfolio B[2]) granted to non-financial sector entities reached the value of PLN 1 197.5 billion, growing during the year 2021 by PLN 55.0 billion, or 4.8%.

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

	Dec 19	Dec 20	Dec 21	YoY change 2021/2020	
	(PLN billion)			(PLN billion)	(%)
Total non-financial sector	1 136.8	1 142.5	1 197.5	55.0	4.8%
Enterprises	383.9	367.6	386.0	18.4	5.0%
Households	745.3	766.8	803.1	36.3	4.7%

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

Diagram 15 Quality of receivables from the non-financial sector – Portfolio B



The anomalies shown in the red box in the diagram are the consequences of changes (concerning classification of receivables to 'Stage 3/impaired' category) to banks' mandatory reporting to the NBP (FINREP) and banks' adjustments related to the obligation to add interest on Stage 3 receivables to the gross carrying amount. At the end of May 2018, a significant part of that interest was written off against provisions.

The quality of receivables from the non-financial sector, measured by the ratio of the gross carrying amount of loans and advances classified as Stage 3/impaired to the total gross carrying amount of loans and advances, improved in 2021, after a period of certain deterioration in 2020 due to the outbreak of the COVID-19 pandemic.

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

	Dec 19	Dec 20	Dec 21	YoY change 2020/2019	YoY change 2021/2020
	(%)			(pp)	
Total non-financial sector	6.63%	6.95%	5.77%	0.32 pp	-1.18 pp
Enterprises	8.58%	9.03%	7.34%	0.45 pp	-1.69 pp
Households	5.68%	6.01%	5.06%	0.33 pp	-0.95 pp

Table 13 Stage 3 receivables coverage ratio – non-financial sector – Portfolio B

	Dec 19	Dec 20	Dec 21	YoY change 2020/2019	YoY change 2021/2020
	(%)			(pp)	
Total non-financial sector	58.31%	59.38%	60.01%	1.08 pp	0.63 pp
Enterprises	50.25%	52.71%	54.55%	2.46 pp	1.83 pp
Households	64.58%	64.21%	63.83%	-0.38 pp	-0.37 pp

5.1.1. Enterprises

2021 brought an increased credit for enterprises demand, as a result of an increase in receivables from large enterprises, while the volume of loans for SMEs fell back to the 2016 level, and their share in total loans for enterprises fell below 50%.

Table 14 Non-financial enterprises loans and advances – Portfolio B

	Dec 19	Dec 20	Dec 21	YoY change 2021/2020	
	(PLN billion)			(PLN billion)	(%)
Total enterprises	383.9	367.6	386.0	18.4	5.0%
Large enterprises	178.5	169.7	196.7	27.0	15.9%
SMEs	205.4	197.9	189.3	-8.6	-4.3%

Diagram 16 Receivables from non-financial enterprises – Portfolio B (in PLN billion)

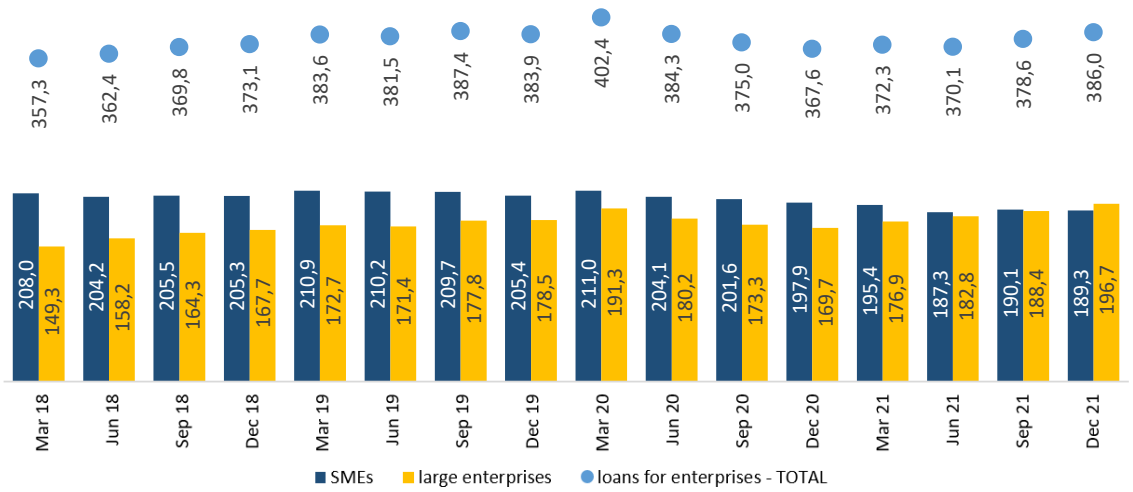


Diagram 17 Quality of receivables (share of Stage 3/impaired receivables) from enterprises in the non-financial sector – Portfolio B

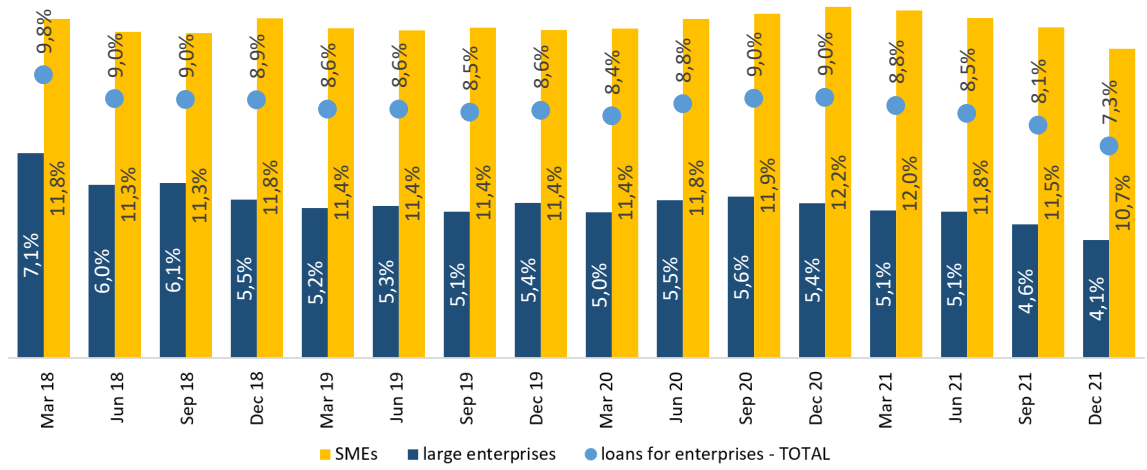
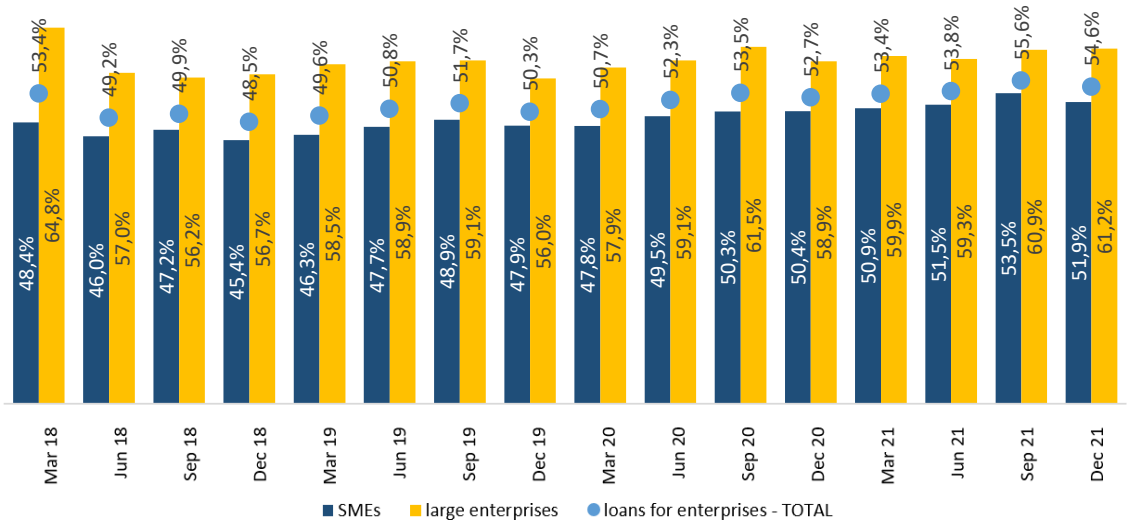


Diagram 18 Stage 3/impaired receivables from enterprises in the non-financial sector to write-offs – Portfolio B



5.1.2. Households

Diagram 19 Gross receivables from households – Portfolio B (PLN billion)

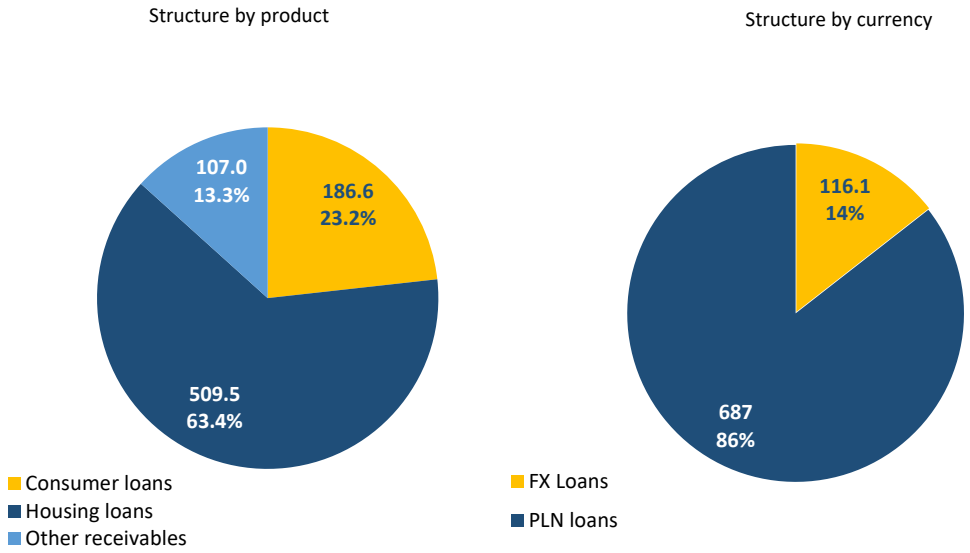


Table 15 Gross receivables from households – Portfolio B

	Dec 19	Dec 20	Dec 21	YoY change 2021/2020	
	(PLN billion)			(PLN billion)	(%)
Households, including:	**745.3**	**766.8**	**803.1**	**36.3**	**4.7%**
Sole traders	79.3	74.4	71.2	-3.3	-4.4%
Private individuals	633.9	661.2	701.0	39.8	6.0%
Individual farmers	32.1	31.3	31.0	-0.3	-0.9%
Housing loans in PLN	324.8	357.9	403.7	45.8	12.8%
Housing loans in CHF	98.1	91.4	77.7	-13.7	-15.0%
Housing loans – other currencies	26.0	28.2	28.1	-0.1	-0.4%
Consumer loans	179.4	178.5	186.6	8.1	4.5%
Other	117.0	110.8	107.0	-3.8	-3.4%

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 to households shows a growing tendency and was 87.3% at the end of December 2021. 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 at the end of 2021 was 70.6%, with consumer loans accounting for 27.7%.

Diagram 20 Quality of receivables from households (share of Stage 3/impaired receivables); banking sector – entities; Portfolio B

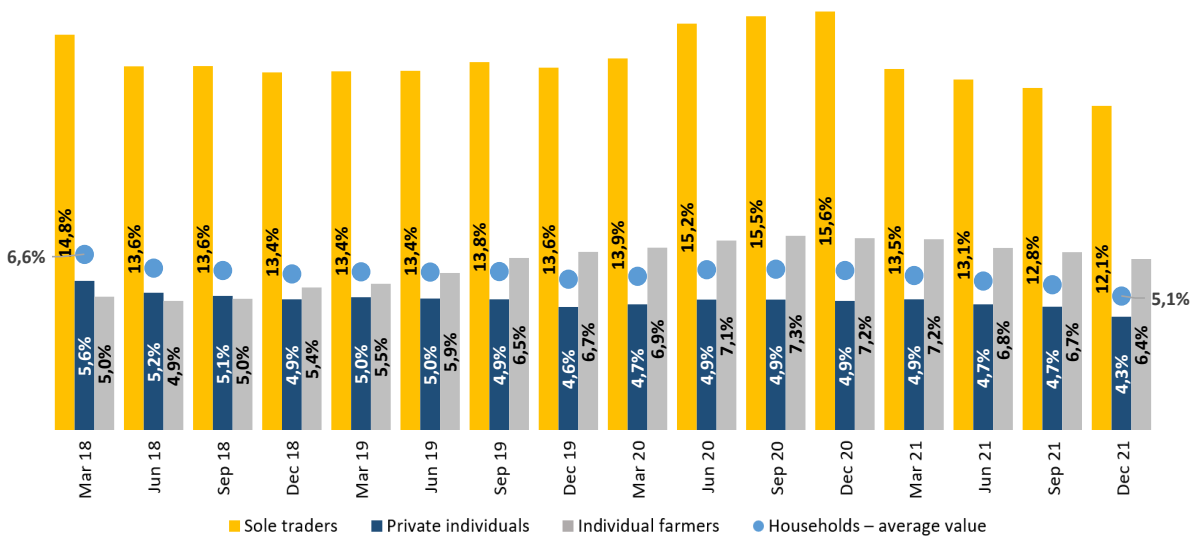


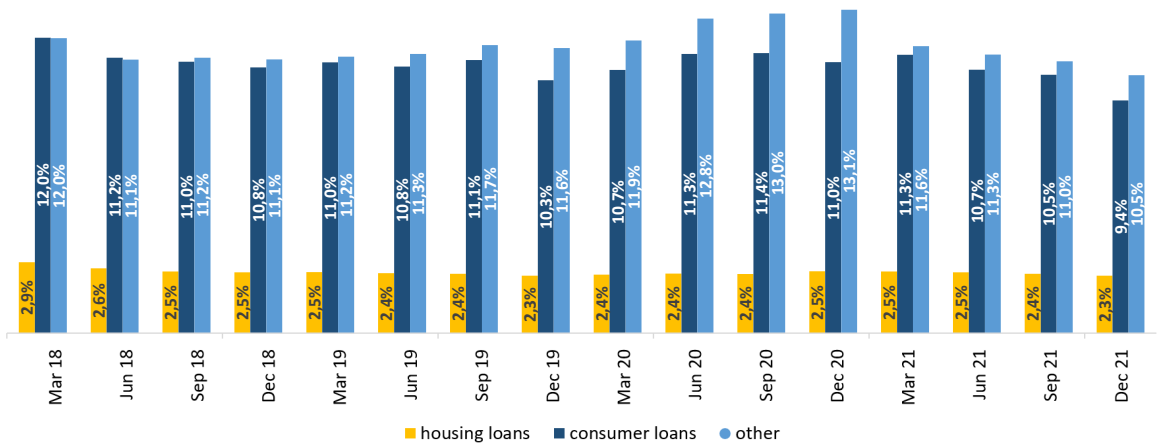
Table 16 Quality of receivables from households (share of Stage 3) – entities; Portfolio B

	Dec 19	Dec 20	Dec 21	YoY change 2020/2019	YoY change 2021/2020
	(%)			(pp)	
Households, including:	**5.68%**	**6.01%**	**5.06%**	**0.33 pp**	**-0.95 pp**
Sole traders	13.56%	15.65%	12.12%	2.09 pp	-3.53 pp
Private individuals	4.65%	4.87%	4.28%	0.22 pp	-0.59 pp
Individual farmers	6.70%	7.20%	6.43%	0.50 pp	-0.78 pp

Table 17 Stage 3 receivables from households to write-offs – entities; Portfolio B

	Dec 19	Dec 20	Dec 21	YoY change 2020/2019	YoY change 2021/2020
	(%)			(pp)	
Households, including:	**64.58%**	**64.21%**	**63.90%**	**-0.38 pp**	**-0.31 pp**
Sole traders	67.62%	68.49%	63.65%	0.87 pp	-4.84 pp
Private individuals	64.83%	63.99%	64.72%	-0.84 pp	0.73 pp
Individual farmers	45.97%	45.15%	52.58%	-0.82 pp	7.43 pp

Diagram 21 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) – products; Portfolio B

	Dec 19	Dec 20	Dec 21	YoY change 2020/2019	YoY change 2021/2020
	(%)			(pp)	
Housing loans	2.33%	2.51%	2.33%	0.18 pp	-0.18 pp
Consumer loans	10.25%	10.99%	9.43%	0.74 pp	-1.56 pp
Other	11.56%	13.12%	10.46%	1.55 pp	-2.65 pp

Table 19 Stage 3 receivables from households coverage ratio – products; Portfolio B

	Dec 19	Dec 20	Dec 21	YoY change 2020/2019	YoY change 2021/2020
	(%)			(pp)	
Housing loans	56.20%	53.96%	55.74%	-2.24 pp	1.77 pp
Consumer loans	69.68%	70.08%	70.61%	0.40 pp	0.53 pp
Other	64.13%	64.71%	61.75%	0.58 pp	-2.97 pp

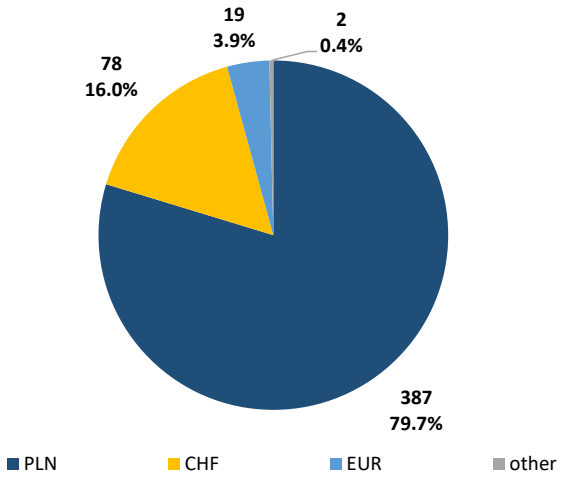
5.1.2.1. Housing loans to households

This sub-section contains information based on a survey which is not part of mandatory reporting and which regards housing loans to households. The survey covered 28 credit institutions (banks and branches of credit institutions) with more than 96% of all housing loans granted to households by the banking sector.

Size and structure of the portfolio

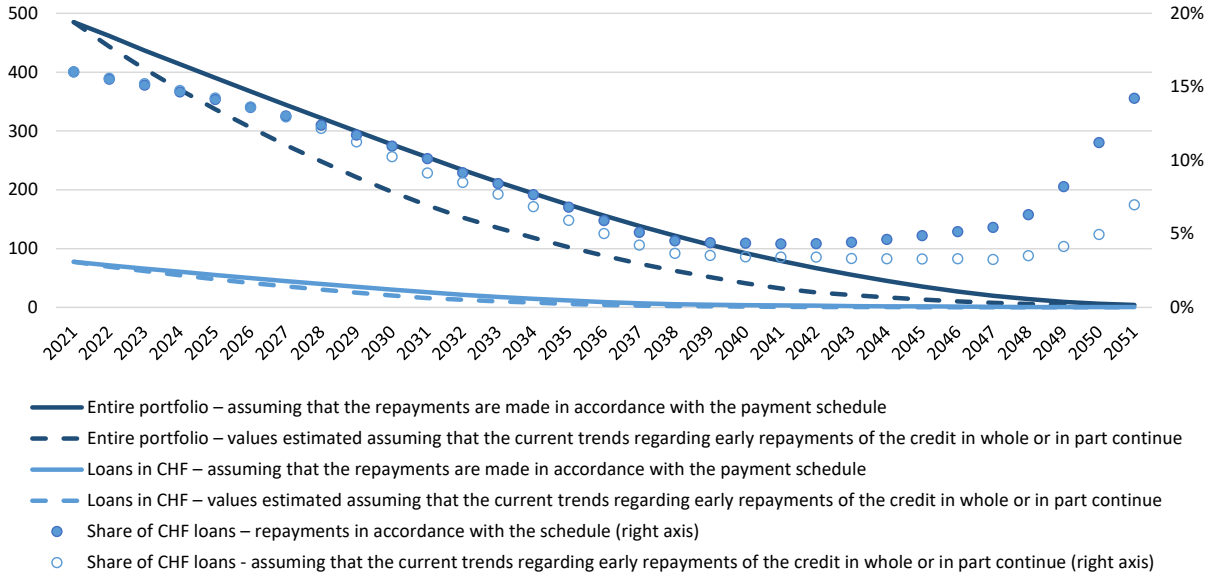
The gross carrying amount of the portfolio of housing loans to households stood at PLN 485.0 billion at the end of 2021 and the number of loans was 2.47 million. Compared to the end of 2020, both values increased by 4.8% from PLN 462.7 billion and by 4.7% from 2.36 million, respectively. PLN loans accounted for 79.7%, and CHF loans for 16.0% of the gross carrying amount of the housing loan portfolio.

Diagram 22 Structure of the housing loan portfolio by currency of credit at the end of 2021 (the gross carrying amount in PLN billion, share by gross carrying amount)



The diagram below shows the timing of repayments of the entire current housing loans portfolio and its part in CHF in two cases: assuming that repayments are made according to the current payment schedule as at the end of 2021 and assuming that the current trends regarding early repayment of all or part of the loan continue. The diagram does not take into account the loans that banks have granted or are planning to grant after 2021.

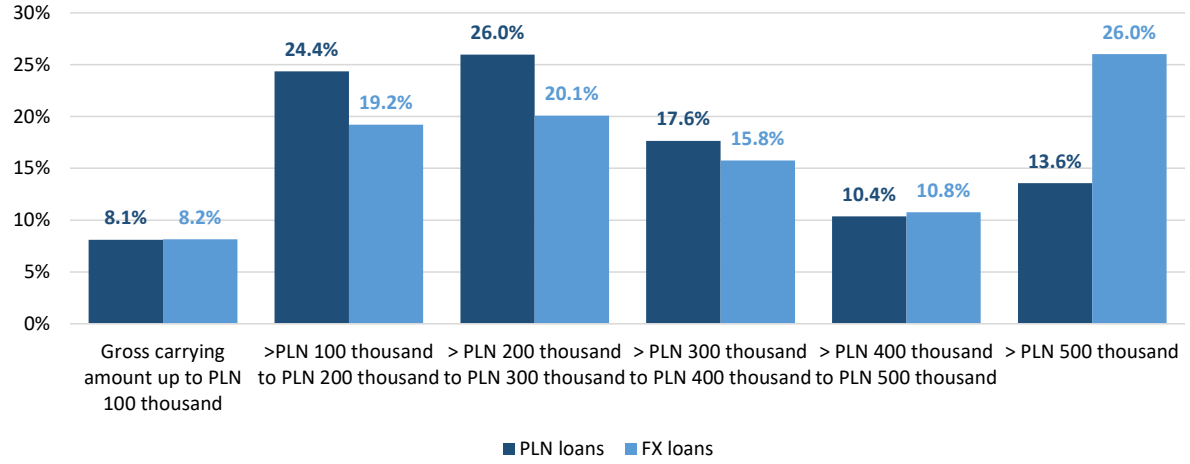
Diagram 23 Evolution (course of repayment) of the housing loans portfolio and its component in CHF as at the end of 2021 by gross carrying amount* (in PLN billion); share of loans in CHF in the housing loan portfolio by gross carrying amount (in %)



* assuming that the interest rates and currency exchange rates do not change as compared to the rates at the end of 2021

At the end of 2021, the average gross carrying amount of a loan in CHF was PLN 207.8 thousand and a loan in PLN was PLN 192.3 thousand. Large share of loans in CHF has gross carrying amount over PLN 500 thousand. Those loans accounted for 26.0% of the portfolio of all housing loans in CHF (13.6% for loans in PLN) and the average gross carrying amount of a loan in that range was PLN 773.2 thousand (PLN 686.3 thousand for loans in PLN).

Diagram 24 Breakdown of housing loans in PLN and CHF in relation to the gross carrying amount of loans on banks' balance sheets at the end of 2021. The breakdown is presented according to the share of loans from a given range for all housing loans in PLN and CHF (share by gross carrying amount).

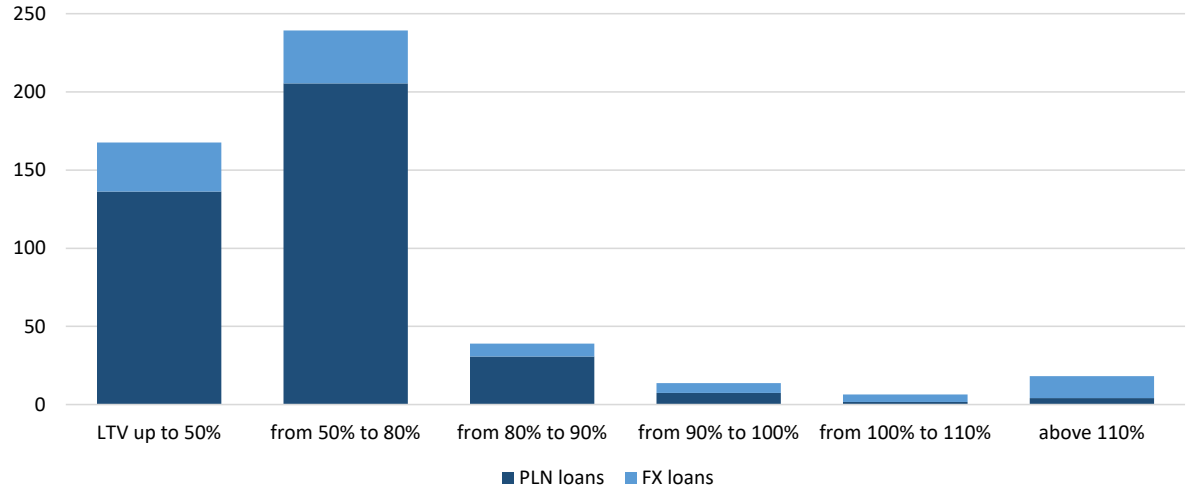


Loan-to-Value (LTV)

Loans with LTV below 80% account for 84.0% of the housing loans portfolio, 88.6% of the portfolio of housing loans in PLN and 66.2% of housing loans in foreign currencies (share by

gross carrying amount). 19.1% of foreign-currency housing loans are loans with LTV above 100%. For loans in PLN, the same ratio is only 1.5%.

Diagram 25 Breakdown of housing loans in PLN and foreign currencies in relation to the LTV ratio by gross carrying amount at the end of 2021 (in PLN billion)



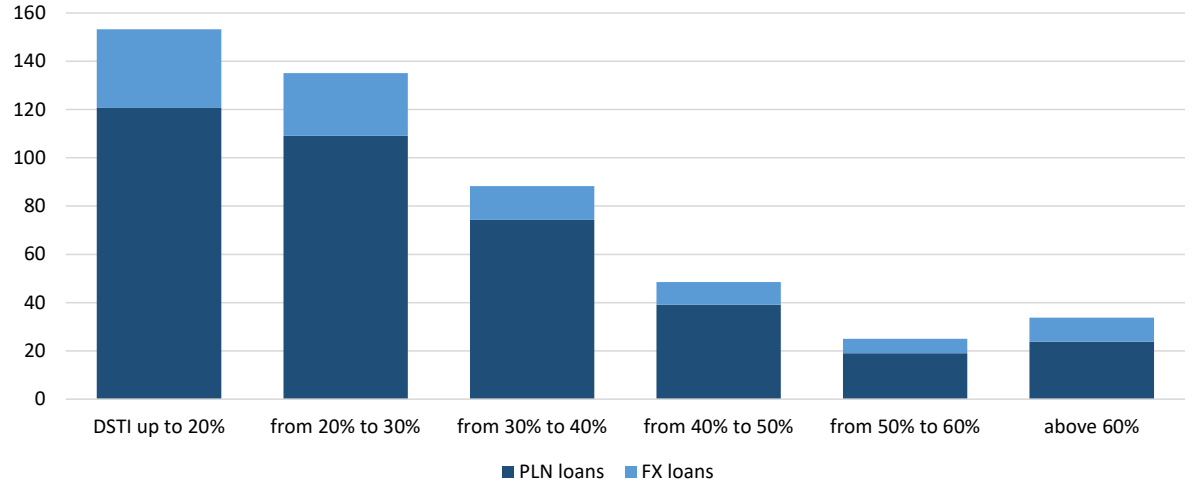
The average LTV for housing loans in the banking sector weighted by the gross carrying amount of those loans at each bank at the end of 2021 was 61.3%.

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 housing loan but also all other credit charges.

The median DSTI at the end of 2021 was between 20% and 30%.

Diagram 26 Breakdown of housing loans in PLN and foreign currencies in relation to the DSTI ratio by gross carrying amount at the end of 2021 (in PLN billion)

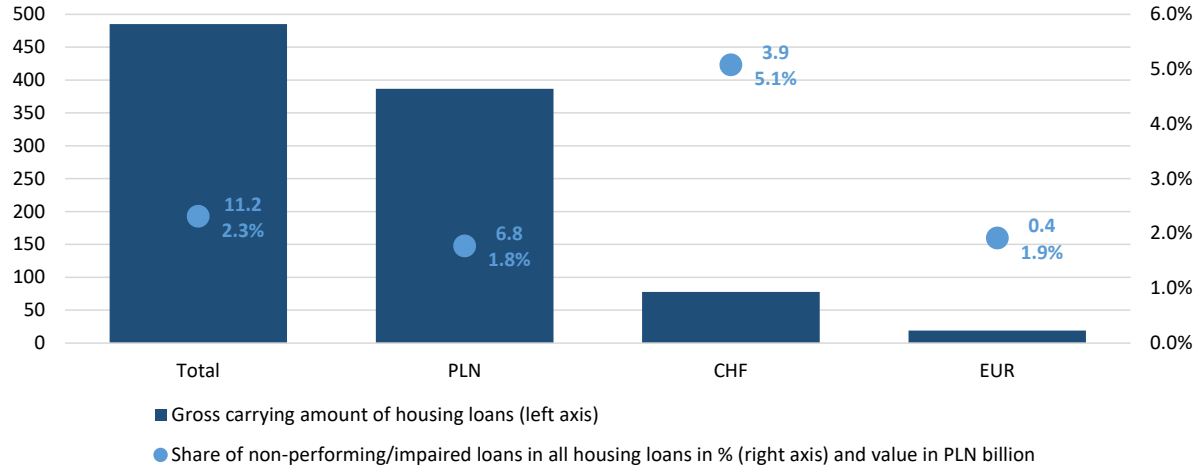


The average DSTI ratio for the banking sector, weighted by the gross carrying amount of housing loans at each bank, was 30.0% at the end of 2021. The average values of DSTI for customers with a housing loan in PLN were close to the DSTI values for customers with a loan in a foreign currency.

Quality of housing loans

The value of Stage 3 loans amounted to PLN 11.2 billion and accounted for 2.3% of the total value of housing loans at the end of 2021.

Diagram 27 Gross carrying amount of housing loans (in PLN billion) by currency and value (in PLN billion), and share of non-performing/impaired loans in the housing loan portfolio, by gross carrying amount (in %)



The gross carrying amount of Stage 3 housing loans decreased as compared to 2020. The reduction of the share of Stage 3 loans in the total value of housing loans was determined by the rapid rise in banks' lending activity in 2021.

Credit quality deteriorates on a linear basis as the portfolio matures but for housing loans granted in 2008 there is an incremental increase in the share of Stage 3 loans. The loans granted in 2008, currently on banks' balance sheets, are characterised by low quality as compared to other years.

Diagram 28 Housing loans in PLN by year of disbursement – the gross carrying amount (in PLN billion) and share of Stage 3 loans in the housing loans portfolio, by gross carrying amount (in %)

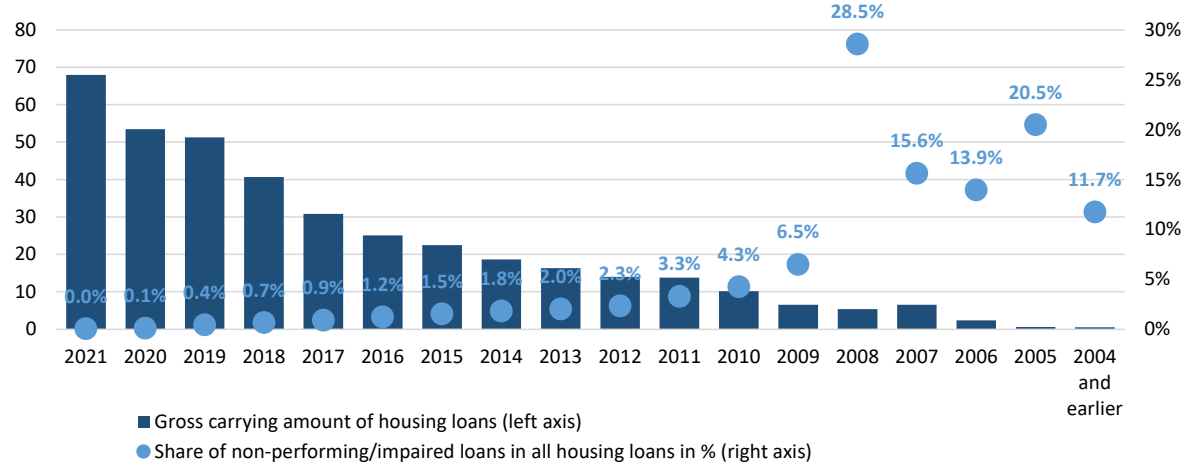
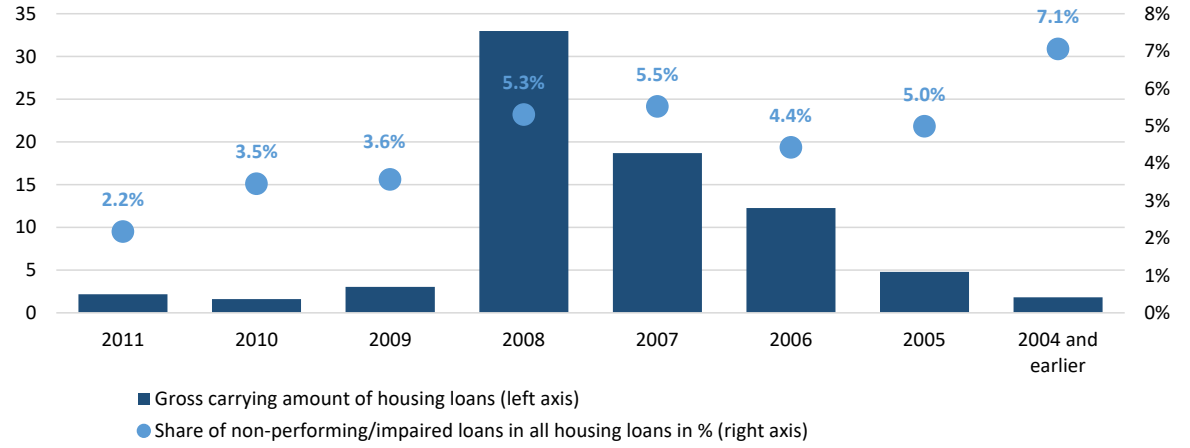


Diagram 29 Housing loans in CHF by year of disbursement (limited to 2011 due to the minor scale in subsequent years) – the gross carrying amount (in PLN billion) and share of Stage 3 loans in the housing loans portfolio, by gross carrying amount (in %)



Additional characteristics

Loans maturing at the retirement age of the borrower accounted for 45.0% of the housing loans on the balance sheets of the banks surveyed. Among the housing loans granted in 2021, the share of those loans was higher and was 49.0%. The gross carrying amount of the loans maturing at the retirement age of the borrower was PLN 218.4 billion at the end of 2021.

In the group of the banks surveyed, in 2021, 42.0% of housing loans (the share according to gross carrying amount) were granted assuming the minimum or lower subsistence costs, and 75.6% of loans were granted assuming that the subsistence costs at the time of granting the loan did not exceed 1.5 times the minimum subsistence figure.

Credit currency conversion

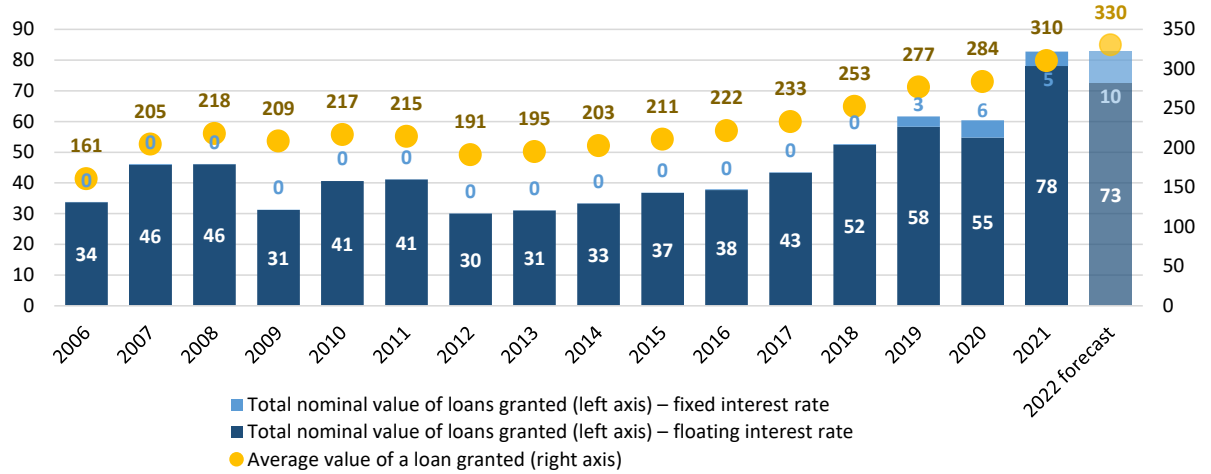
In 2021, 17.2 thousand loans were converted from foreign currencies to the Polish currency (8.2 thousand in 2020 and 7.5 thousand in 2019). The gross carrying amount of those loans at

the end of 2021 was PLN 4.2 billion (PLN 2.9 billion at the end of 2020 and PLN 2.8 billion at the end of 2019). 56.5% of loans converted from a foreign currency to PLN (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 2021

In 2021, banks granted 266.6 thousand housing loans (212.5 thousand in 2020) with total nominal value of PLN 82.7 billion (PLN 60.4 billion in 2020). The share of loans with temporarily fixed interest rate in the total nominal value of loans granted in 2021 was 5.7% (9.3% in 2020).

Diagram 30 Total nominal value of loans (in PLN billion) and average value of a loan (in PLN thousand) granted in the years 2006–2021 and the forecast for 2022



The banks surveyed granted most loans in the third quarter. In the fourth quarter of 2021, there was an increase in customers' interest in fixed-rate loans and an increase in the value and number of loans with temporarily fixed interest rate granted.

Diagram 31 Fixed-rate housing loans – demand and supply, nominal value (in PLN billion), percentage share in the value of loans applied for

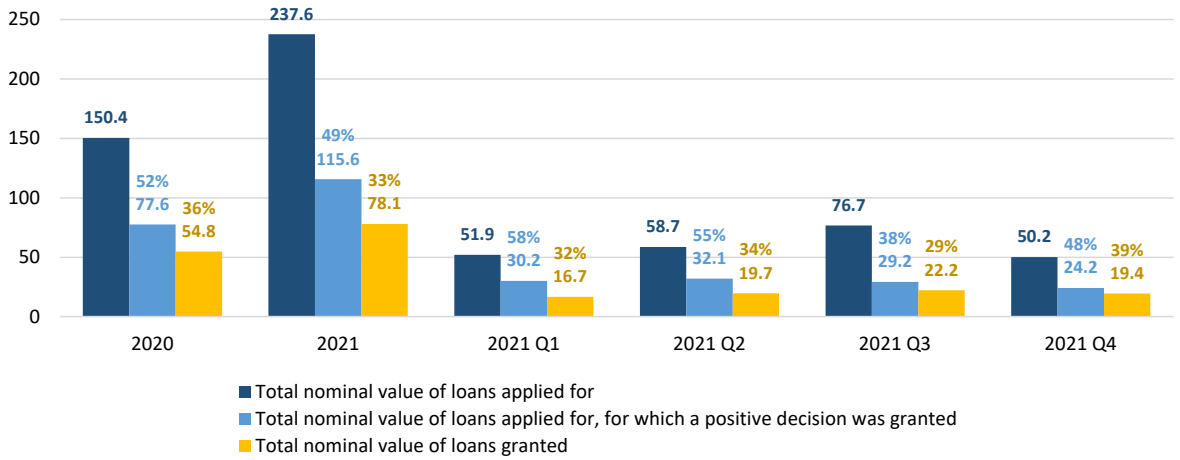
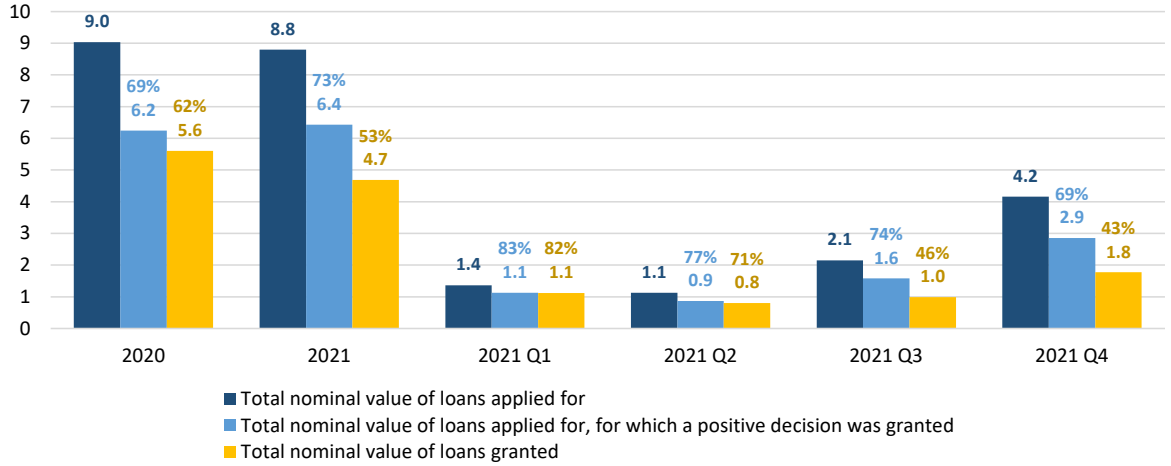
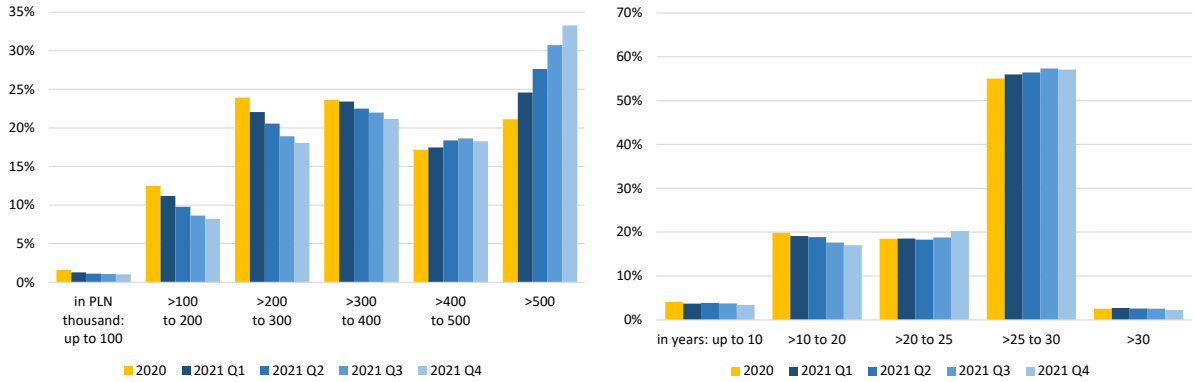


Diagram 32 Housing loans based on a temporarily fixed rate – demand and supply, nominal value (in PLN billion), percentage share in the value of loans applied for



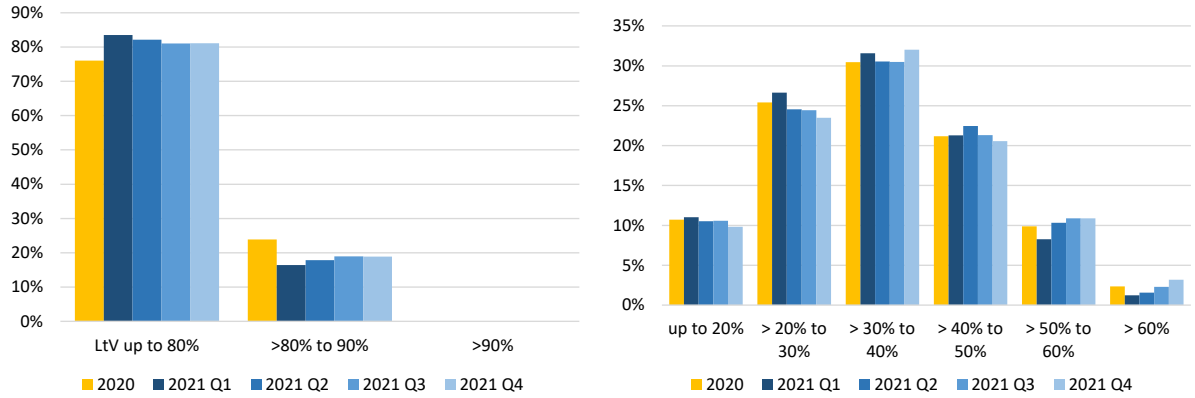
In subsequent quarters of 2021, the share of loans with nominal value exceeding PLN 500 thousand was increasing. Such loans accounted for 29.3% of all loans granted in 2021 in relation to 21.1% granted in 2020. There was also a minor increase in the share of loans granted for a period of more than 25 years.

Diagram 33 Breakdown of the total contract value of loans granted in 2021 and 2020 (in %) by nominal value of the loan granted (the left diagram) and by initial lending period (the right diagram)



Loans with LTV above 80% at the moment of disbursement accounted for 18.2% of the total nominal value of loans granted in 2021. The share of those loans decreased as compared to the loans granted in 2020.

Diagram 34 Breakdown of the total contract value of loans granted in 2021 and 2020 (in %) 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 2021 was 2.21%, and the average commission was 0.18%. For loans with temporarily fixed interest rate, the average interest rate was 3.79%, and the average commission was 0.10%.

Diagram 35 Nominal value (PLN billion) and average margin for floating-rate loans granted in the period from January to December 2021

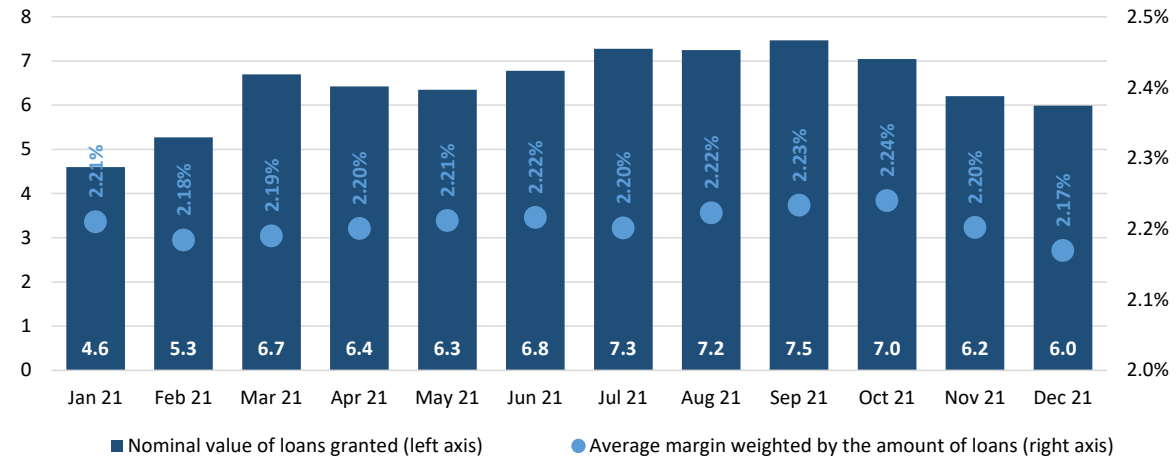
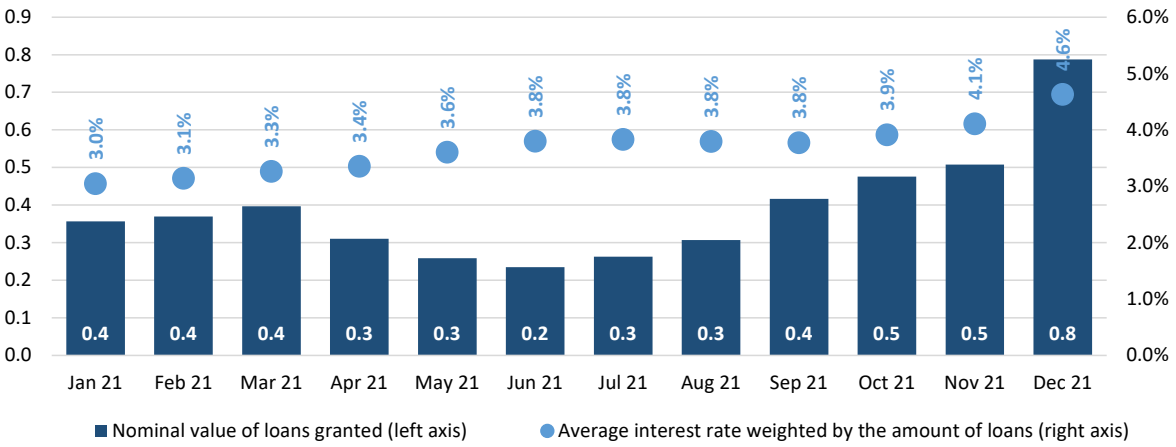


Diagram 36 Nominal value (PLN billion) and average interest rate on loans with temporarily fixed interest rate granted in the period from January to December 2021



The loans with temporarily fixed interest rate were not relevant across the commercial banks sector at the end of 2021. Their share in the gross carrying amount of housing loans of the banks surveyed is 2.75%, with loans granted in 2021 accounting for 0.84%. The gross carrying amount of those loans at the end of 2021 was PLN 13.3 billion. The most frequent duration of temporarily fixed interest rate offered is 5 years.

5.1.2.2. Legal risk of the portfolio of FX mortgage loans

The UKNF conducts a survey which is not part of mandatory reporting and which covers 16 commercial banks and 2 branches of credit institutions (their portfolios of foreign-currency housing loans account for 99.9% of the portfolio of foreign-currency housing loans of the sector); as part of the survey the entities provide monthly information about the portfolio of mortgage-backed loans in the Swiss franc and euro to households. In 2021, the legal risk associated with the portfolio of foreign-currency housing loans, particularly in the Swiss franc, represented one of the main risks in the banking sector and a material determinant of the banks' financial standing. The legal acts performed by borrowers against banks resulted in a consistent increase in the number of foreign-currency housing loans, particularly in the Swiss franc, being the subject-matter of a court dispute and in an increase in the value of claim. The increase in the value of claim in 2021 in the sector amounted to PLN 13.2 billion (+142.2% in relation to the value at the end of 2020), while the number of loans in dispute increase by nearly 40 thousand (an increase of 92.3% per year).

At the same time, most banks significantly increased their provisions for legal risk related to that portfolio. Their value increased by PLN 17.7 billion (an increase of 317.2% in relation to the figure at the end of 2020) and reached PLN 23.3 billion, i.e. an amount higher than the total value of claim. Such action could result from both the expectations that courts would rule to the disadvantage of the banks and the activities related to the offering of settlement agreements to the borrowers. As part of the total amount of provisions for legal risk, PLN 6 billion represented the special provisions for the settlement agreements concluded by the banks with the borrowers.

Diagram 37 Number of loans in dispute – all banks

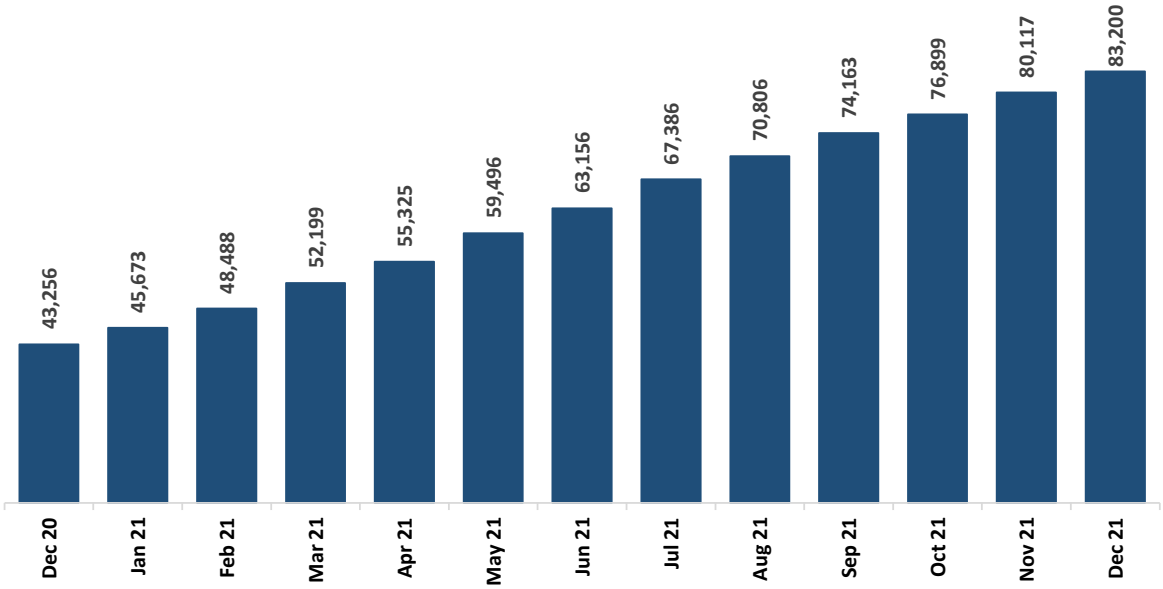
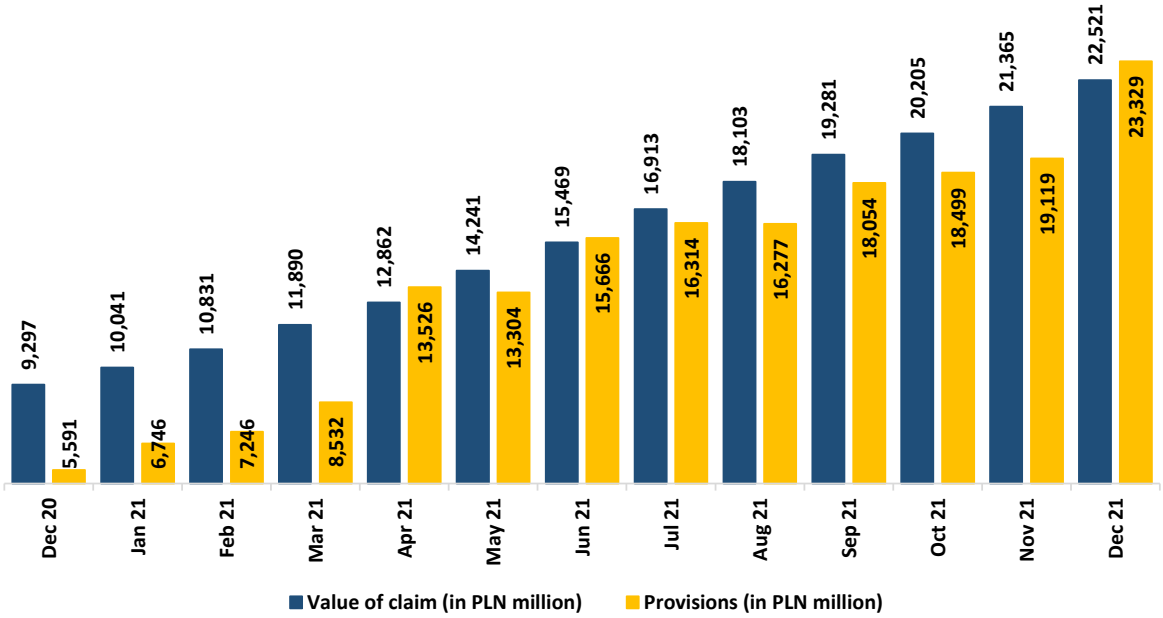
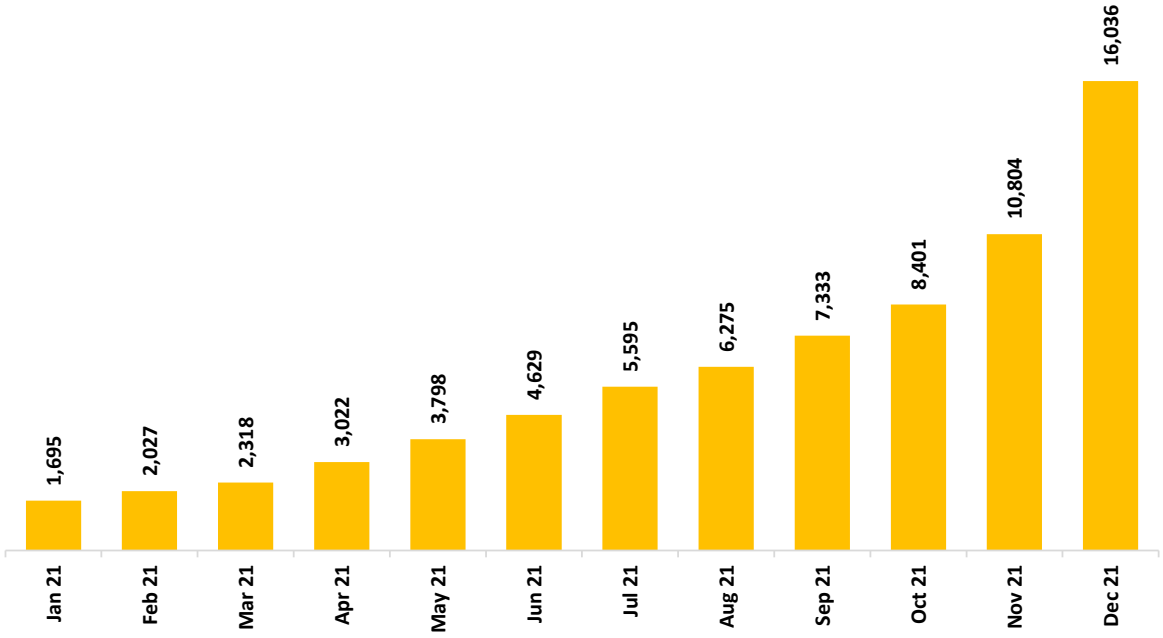


Diagram 38 Value of claim and value of provisions – all banks



In December 2020, the Chair of the KNF presented a proposal for settlement agreements on CHF mortgage loans conversion, as an alternative to court litigation. Mediations between the banks and borrowers were conducted through the Arbitration Court at the PFSA. The costs of the entire process are borne by the banks. A few banks are now offering voluntary settlement agreements on the terms consistent with the proposal of the Chair of the KNF and some banks offer and conclude settlement agreements on their own terms.

Diagram 39 Number of settlement agreements concluded – all banks



5.1.2.3. Consumer loans to households

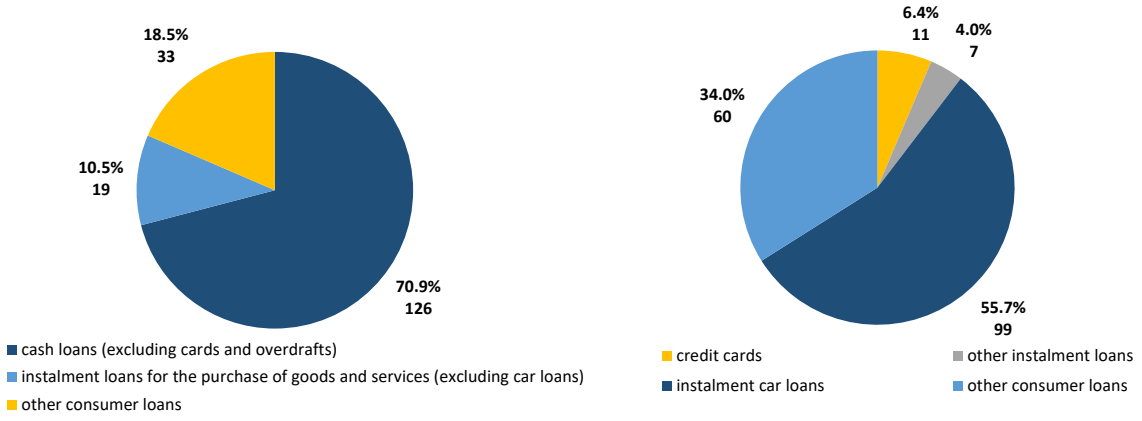
This sub-section contains information based on a survey which is not part of mandatory reporting and which concerns consumer loans to households. 27 financial institutions (banks and branches of credit institutions) took part in the survey.

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 178.0 billion at the end of 2021. Compared to the end of 2020, there was an increase in the value of the portfolio by PLN 6.9 billion (+4.0%).

The most significant item were cash loans (excluding cards and overdrafts) accounting for 70.9% 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) – 59.6%.

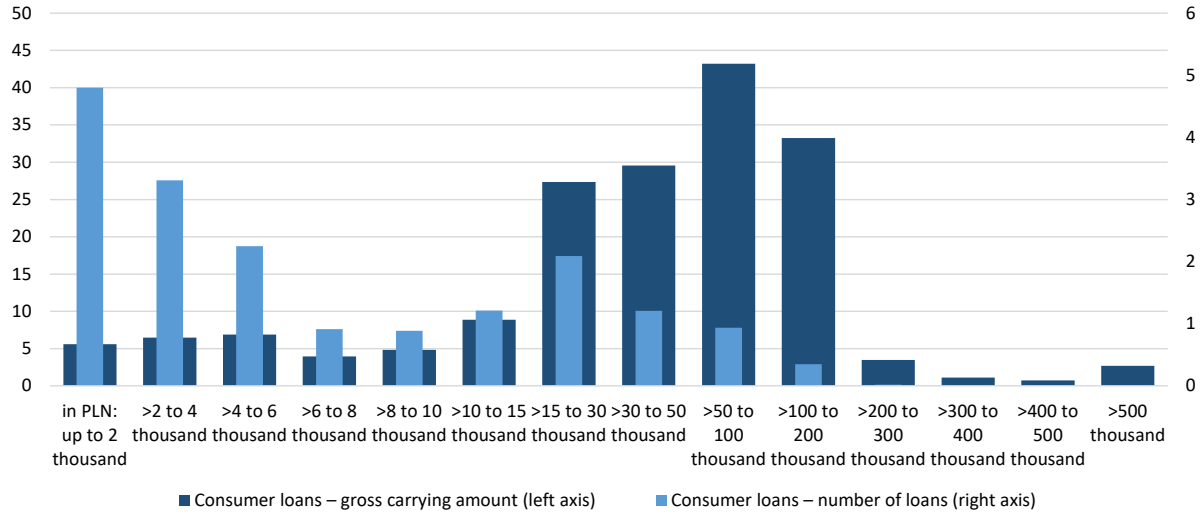
Diagram 40 Structure of the portfolio of consumer loans at the end of 2021, gross carrying amount (in PLN billion), share in total consumer loans by gross carrying amount (in %); Classification according to FINREP (the right diagram)



The decrease in the gross carrying amount of consumer loans at selected banks is the consequence of the sale of a part of the portfolio or of the transfer to off-balance-sheet records. In 2021, loans with total value of PLN 4.9 billion were written off the banks' balance sheets due to sale, and loans with total value of PLN 1.0 billion were written off due to the transfer to off-balance-sheet records.

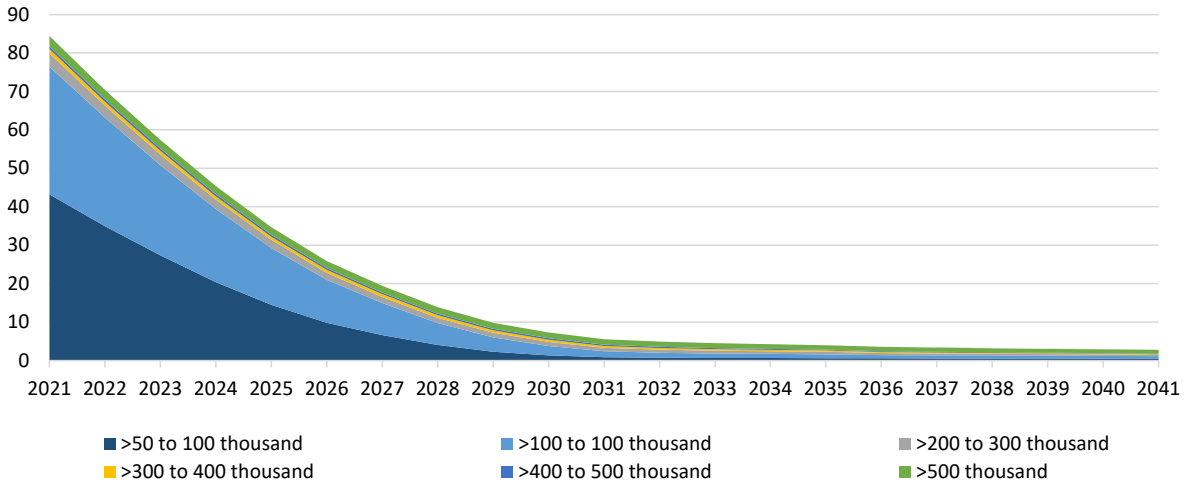
In terms of figures, the banks' balance sheets were dominated by loans with nominal value of up to PLN 2 thousand at the time of granting, with the highest gross carrying amount of loans with a nominal value between PLN 50 thousand and PLN 100 thousand.

Diagram 41 Gross carrying amount (in PLN billion) and number (in 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 2021 will halve by 2025. The timing of repayment of that portfolio is shown in the diagram below.

Diagram 42 Timing of repayment of the consumer credit portfolio as at the end of 2021 with an initial value of more than PLN 50 thousand, under the assumption that repayment takes place in accordance with the schedule The timing concerns the gross carrying amount (in PLN billion) broken down by initial nominal value of loans (in PLN).



Quality of the consumer credit portfolio

Stage 3 loans at the end of 2021 accounted for 9.6% of the total gross carrying amount of consumer loans (11.2% at the end of 2020, 9.9% at the end of 2019). Loans with no delay in repayment accounted for 87.4% of the portfolio (85.4% at the end of 2020, 84.8% at the end of 2019). The remaining part of the portfolio (3.1%) were loans with a delay in repayment but without recognised impairment.

Table 20 Gross carrying amount of consumer loans, Stage 3 consumer loans (in 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 thous.	**>8 thous. to 15 thous.**	**>15 thous. to 30 thous.**	**>30 thous. to 50 thous.**	**>50 thous. to 100 thous.**	**>100 thous.**
Gross carrying amount of consumer loans						
up to 2 years	10.44	3.44	3.02	1.60	1.26	0.75
> 2 years to 5 years	8.04	6.86	13.24	10.95	8.78	2.55
>5 years to 8 years	1.56	2.01	7.12	10.13	15.70	9.23
above 8 years	2.83	1.43	3.96	6.80	17.48	28.79
Gross carrying amount of non-performing/impaired consumer loans						
up to 2 years	0.58	0.26	0.33	0.27	0.40	0.42
> 2 years to 5 years	0.42	0.51	1.02	0.85	0.68	0.56
>5 years to 8 years	0.11	0.17	0.52	0.76	1.00	0.98
above 8 years	0.14	0.09	0.29	0.62	1.54	4.50
Share of non-performing/impaired loans in all consumer loans (gross carrying amount)						
up to 2 years	6%	8%	11%	17%	32%	55%
> 2 years to 5 years	5%	7%	8%	8%	8%	22%
>5 years to 8 years	7%	9%	7%	8%	6%	11%
above 8 years	5%	6%	7%	9%	9%	16%

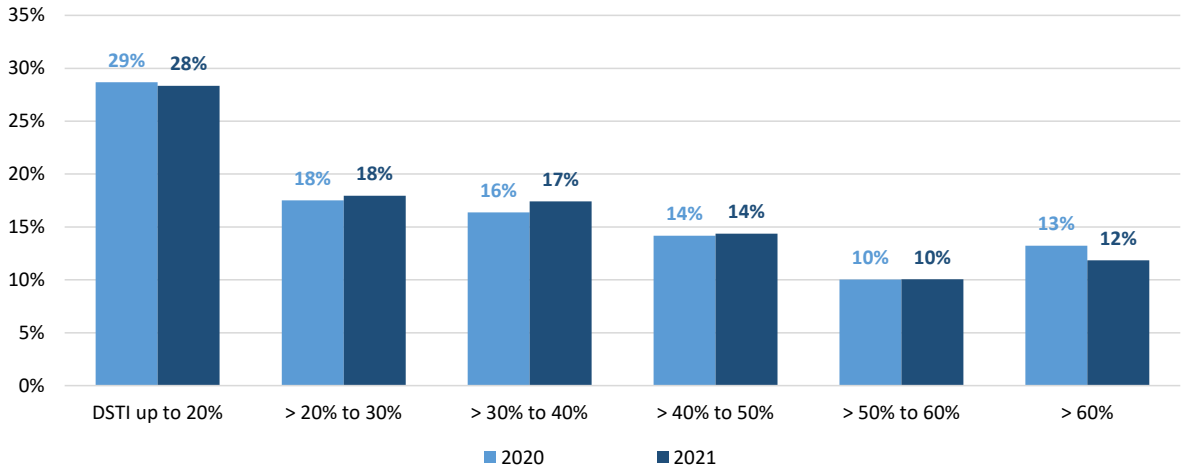
The gross carrying amount of Stage 3 loans on the balance sheets of the banks involved in the survey was PLN 17.0 billion (PLN 19.1 billion at the end of 2020, PLN 17.0 billion at the end of

2019), of which 8.0% were high-value loans (with a nominal value of more than PLN 50 thousand) and with a long initial period of repayment (more than 5 years).

DSTI

At the end of 2021, the consumer credit portfolio was dominated by loans for which DSTI did not exceed 20%. In 2021, the share of loans with DSTI above 60% decreased but the increase in interest rates results in a rise in DSTI for floating-rate loans.

Diagram 43 Breakdown of the gross carrying amount of consumer loans according by DSTI at the end of 2020 and 2021

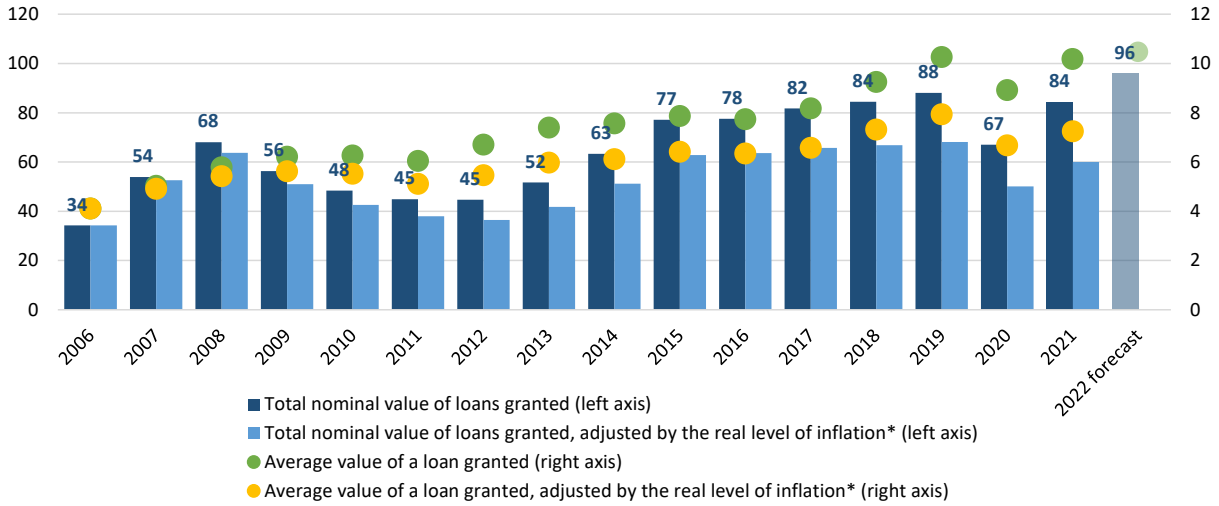


The value of consumer loans for which the DSTI ratio estimated for the end of 2021 exceeded 50% amounted, for the entire group of banks, to approx. PLN 39.0 billion, which accounts for 21.9% of the value of all consumer loans.

Lending activity in 2021

The total nominal value of consumer loans granted in 2021 amounted to PLN 84.3 billion (an increase of PLN 17.2 billion and 25.7% YoY). The average nominal value of a consumer loan granted in 2020 was PLN 10.2 thousand.

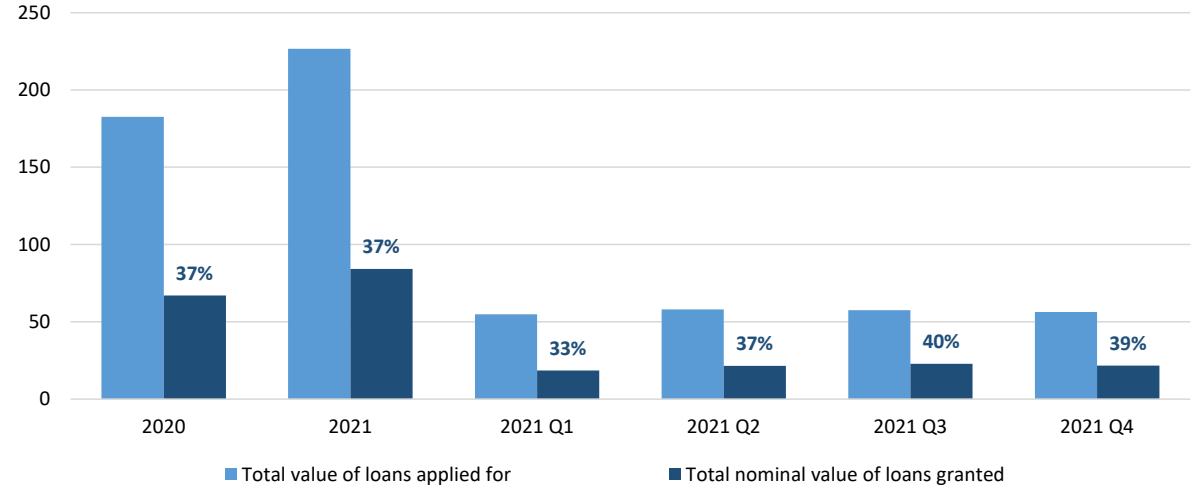
Diagram 44 Total nominal value of loans granted (in PLN billion), average value of a loan granted (in PLN thousand) in the years 2006–2021 and the forecast for 2022



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

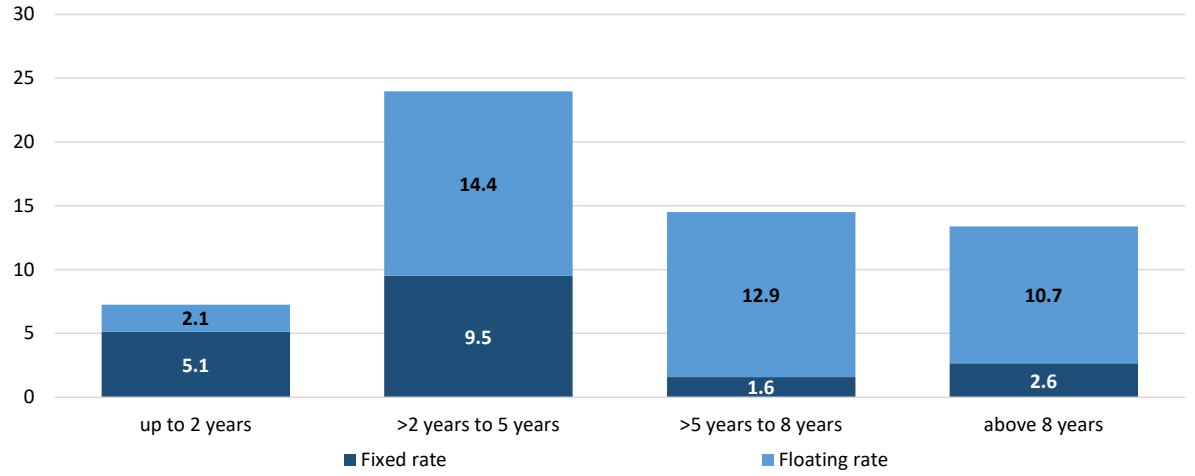
The demand for consumer loans in 2021 was higher than in 2020 – the nominal value of loans applied for increased by 24.1% YoY. The relation between the value of loans granted to the value of loans applied for has not changed.

Diagram 45 Consumer loans – demand and supply, nominal value (in PLN billion), percentage share of loans granted in the value of loans applied for



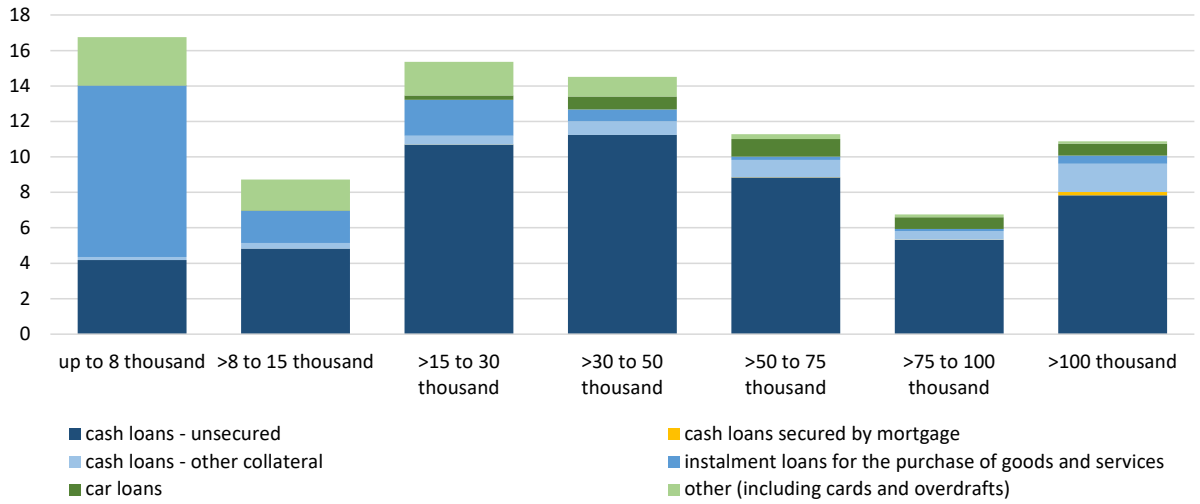
68% of the loans granted in 2021 (share by nominal value) were floating-rate loans (54% in 2020). A larger share of fixed-rate loans occurs in loans with a shorter initial term.

Diagram 46 Nominal value (in PLN billion) of fixed-rate and floating-rate loans granted in 2021 by initial term



Loans in an amount exceeding PLN 50 thousand accounted for 34.3% of the total nominal value of all consumer loans granted in 2021 (+4.0 pp YoY).

Diagram 47 Total nominal value (in PLN billion) of consumer loans granted in 2021 by nominal value of the loan (in PLN)



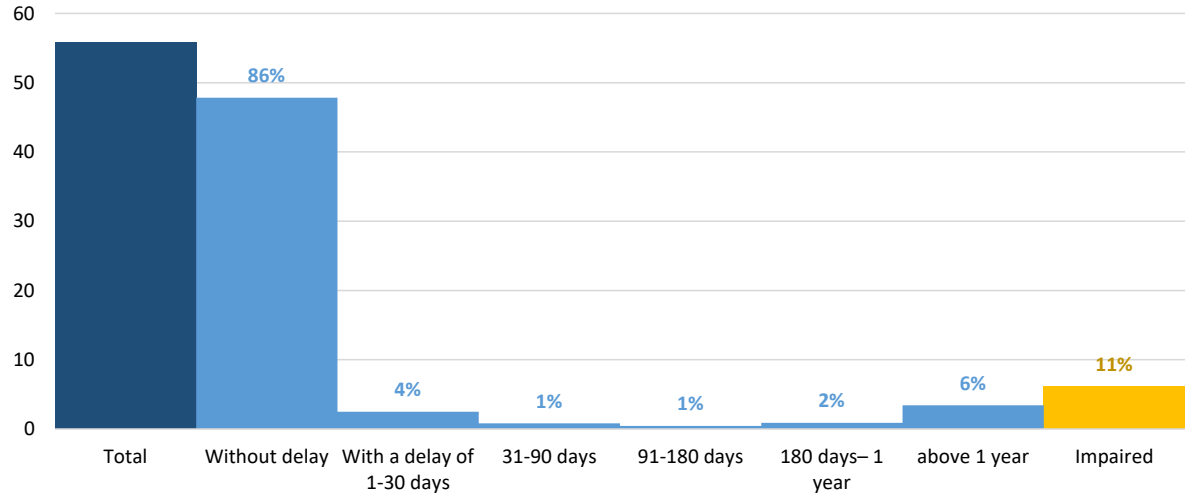
Debt consolidation loans

Consumer debt consolidation loans account for 31.4% of all consumer loans. Their gross carrying amount is PLN 55.9 billion, of which PLN 20.9 billion is a volume taken over from other banks and PLN 24.5 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 6.1 billion, which accounted for 11.0% of the value of the portfolio of debt consolidation loans. 85.6% of the value of the debt consolidation loans portfolio are loans with no delay in repayment. The

remaining part of the portfolio (3.4%) were loans with a delay in repayment but without recognised impairment.

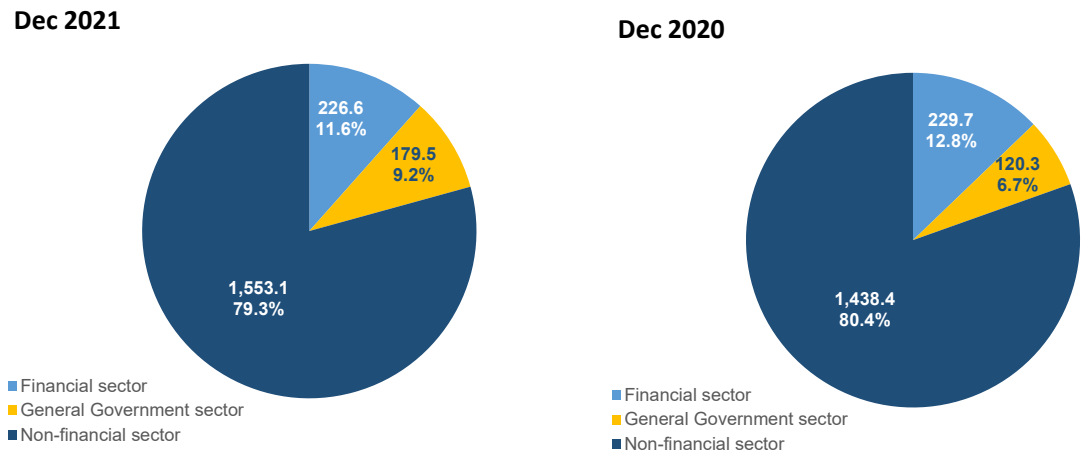
Diagram 48 Debt consolidation consumer loans, delays in repayment, gross carrying amount at the end of 2021 (in PLN billion)



5.2. Liabilities

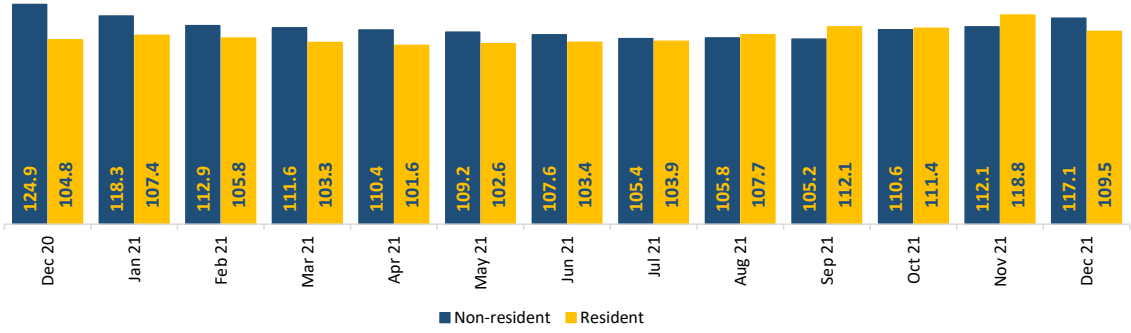
In 2021, there was a 2.5% increase in the share of liabilities to the general government sector.

Diagram 49 Sector structure of liabilities on account of deposits* and credit received (in PLN billion)



* Including blocked deposits, i.e. funds deposited at a reporting entity that the depositor can 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 50 Deposits and loans received from the financial sector (in PLN billion)



5.2.1. Deposits of the non-financial sector

In 2021, the value of deposits of the non-financial sector increased by 8.0% (or PLN 114.4 billion) YoY, and the largest annual increase in deposits occurred for commercial banks – by PLN 105.0 billion (or 8.2%).

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

	Dec 19	Dec 20	Dec 21	YoY change 2021/2020	
	(PLN billion)			(PLN billion)	(%)
Deposits of the sector	1 269.8	1 434.9	1 549.4	114.4	8.0%
commercial banks	1 132.0	1 280.6	1 385.6	105.0	8.2%
cooperative banks	123.5	132.7	141.5	8.7	6.6%
branches of foreign banks	14.3	21.6	22.3	0.7	3.4%

The structure of deposits from the non-financial sector is dominated by households (70.2%; a YoY decrease of 0.8 pp compared to 2020) and deposits in PLN (85.7%; a YoY decrease of 1.0 pp).

Diagram 51 Deposits from the non-financial sector entities at the end of December 2021 (in PLN billion)

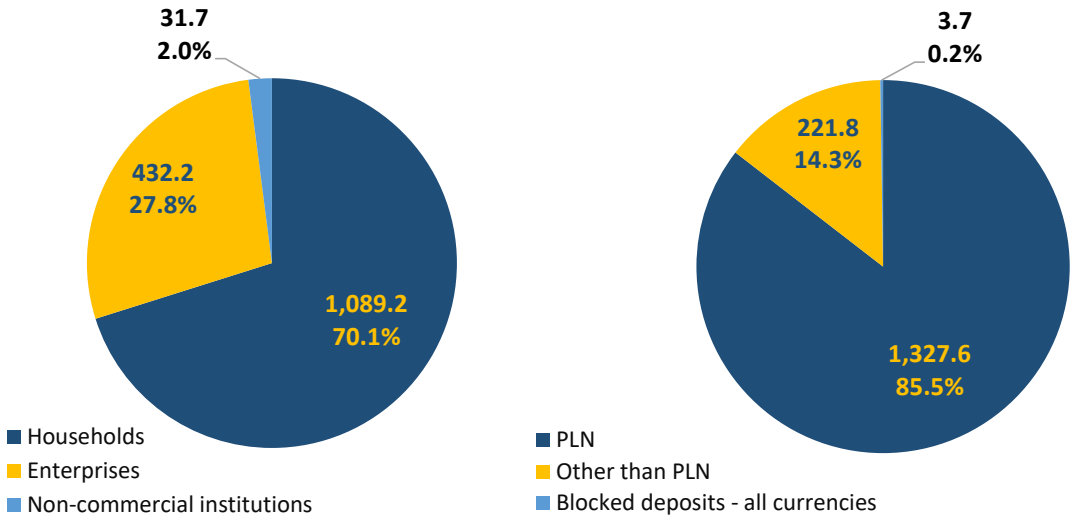


Table 22 Deposits of the non-financial sector – currency and maturity structure (excluding blocked deposits)

	Dec 19	Dec 20	Dec 21	YoY change 2021/2020	
	(PLN billion)			(PLN billion)	(%)
Households	**919.9**	**1 018.4**	**1 087.8**	**69.4**	**6.8%**
PLN	818.4	896.6	948.0	51.4	5.7%
Other than PLN	101.6	121.8	139.8	18.0	14.8%
Enterprises	**322.9**	**386.8**	**429.9**	**43.1**	**11.1%**
PLN	257.1	319.1	349.2	30.1	9.4%
Other than PLN	65.8	67.7	80.7	13.0	19.2%
Non-commercial institutions	**26.9**	**29.7**	**31.6**	**1.9**	**6.6%**
PLN	26.1	28.7	30.4	1.7	5.9%
Other than PLN	0.9	1.0	1.3	0.3	25.7%
Current deposits	844.2	1 136.4	1 289.4	153.0	13.5%
Term deposits	425.5	298.5	260.0	-38.5	-12.9%

Deposits of enterprises in 2021 increased by 11.1% YoY (i.e. by PLN 43.1 billion), and deposits of households by 6.8% (i.e. by PLN 69.4 billion), while the volume of term deposits decreased by PLN 38.5 billion YoY i.e. by 12.9%), and current deposits increased by PLN 153.0 billion YoY (i.e. by 13.5%). FX deposits (YoY increase of PLN 31.3 billion, or 16.4%) rose much faster than the deposits in PLN (YoY increase of PLN 83.1 billion, or 6.7%).

Diagram 52 Households' deposits (in PLN billion)

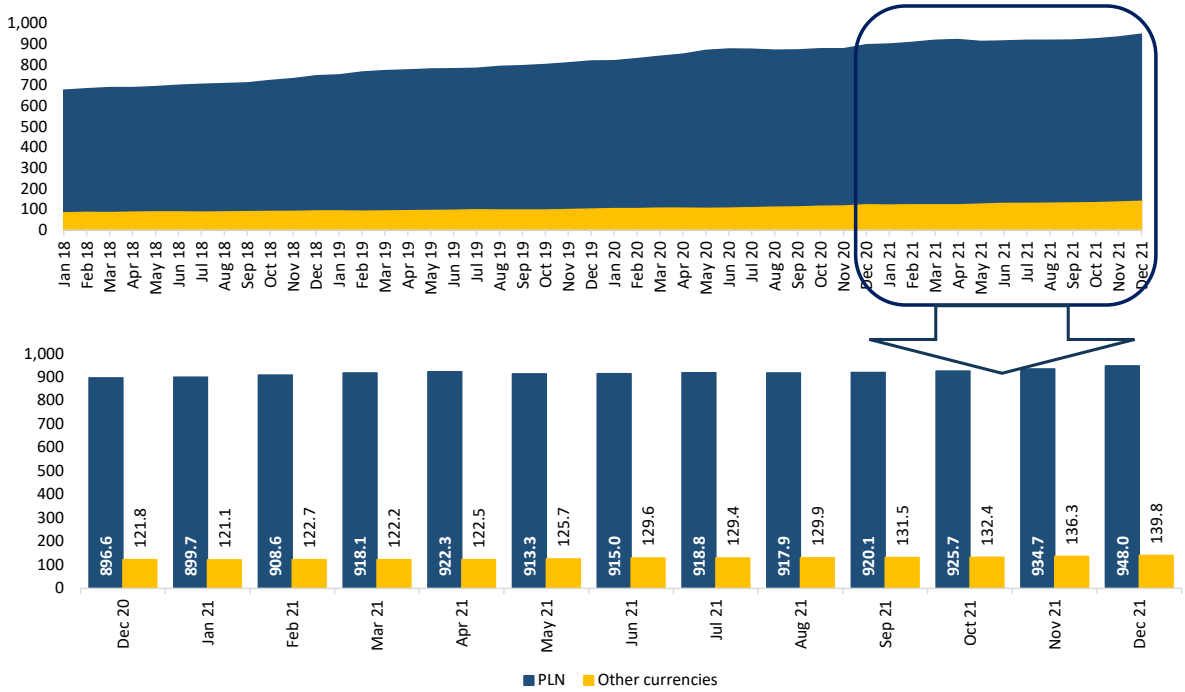
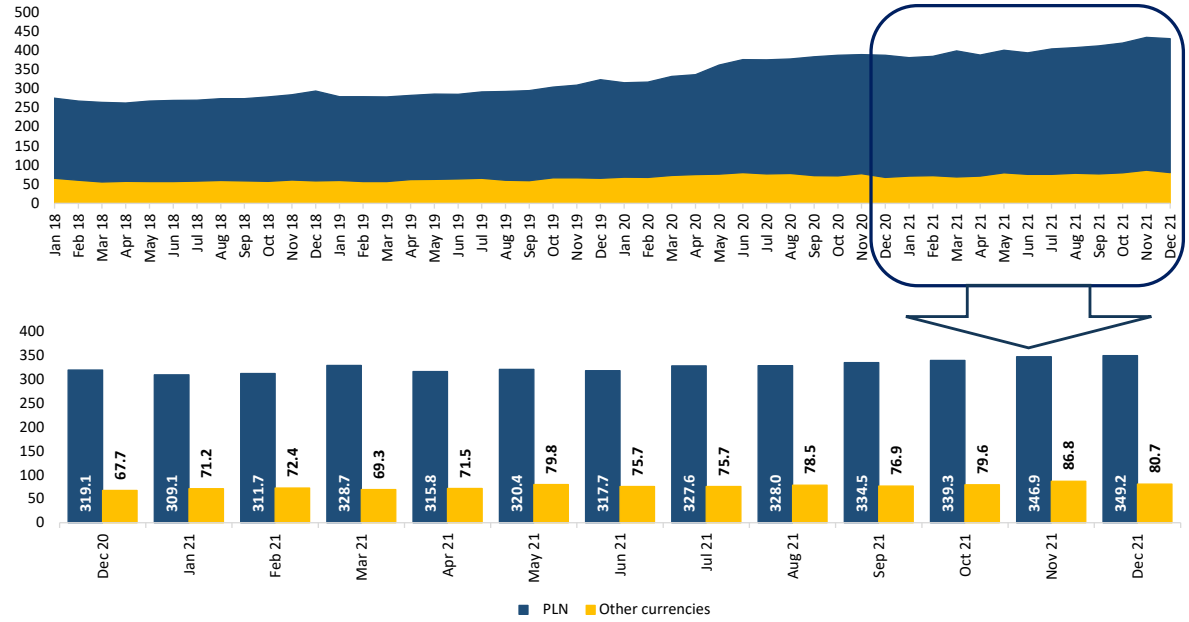


Diagram 53 Enterprises' deposits (in PLN billion)

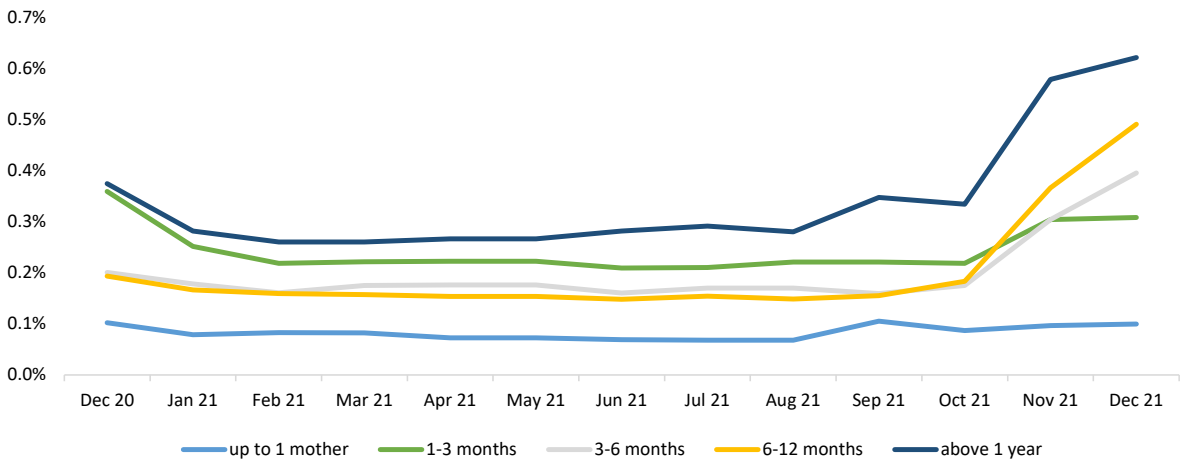


5.2.2. Interest rate on deposits – banks' offer

5.2.2.1. Private individuals[3]

- Interest rates remained stable until October 2021, and minor increases were seen in November and December 2021. The banks' response to the rises in interest rates on term deposits was gradual, and to the rises in reference interest rates – delayed.
- The number of term deposits over the year gradually decreased from 407 to 285 offers.

Diagram 54 Changes in average interest rates in 2021 by tenor



5.2.2.2. Enterprises[4]

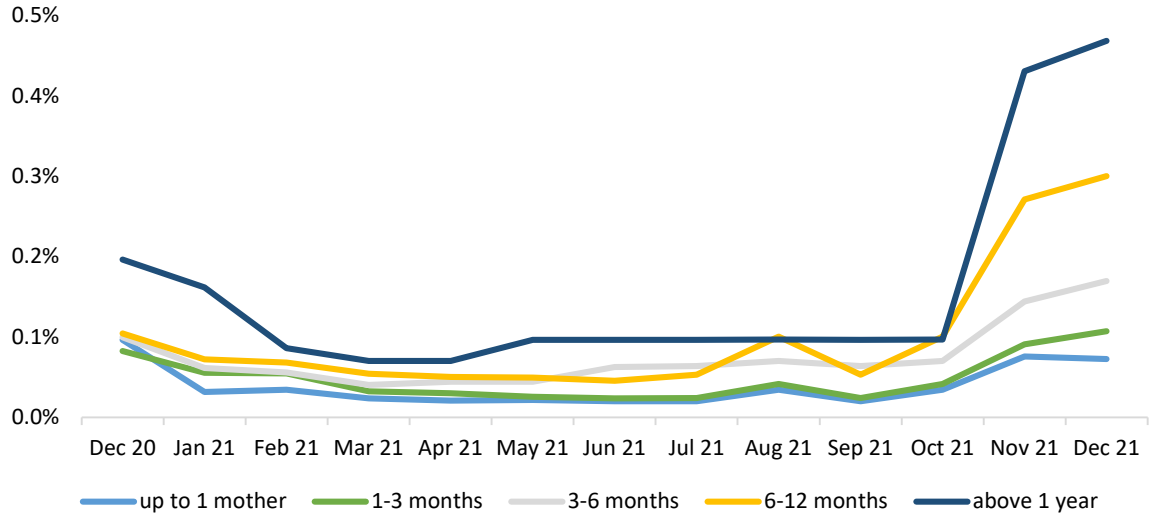
- In 2021, the interest rate on term deposits was stable and despite the increase in reference interest rates at the end of the year, only minor changes took place.
- Branches of credit institutions were not offering term deposits for enterprises on their websites.

[3] At the end of the year, 18 commercial banks and 3 branches of credit institutions were offering term deposits for private individuals (the survey did not take into account offers that were not presented on banks' websites or offers for negotiated term deposits).

[4] At the end of the December, 13 commercial banks were offering term deposits for firms (the survey did not take into account offers that were not presented on banks' websites or negotiated term deposits). Branches of credit institutions do not offer term deposits for this group of customers through websites.

- The highest interest rate offered was for tenor exceeding 1 year (December 2020: 0.20%; December 2021: 0.47%).

Diagram 55 Changes in average interest rates in 2021 by tenor



6. Capital adequacy

In 2021, the equity situation of the banking sector remained stable. The value of the sector's own funds at the end of 2021 was equal to PLN 218.8 billion (-5.3% YoY). Tier 1 capital accounted for 89.8% of own funds.

The amount of exposure to credit risk in the banking sector increased by 2.8% YoY. The amount of exposure to operational risk increased by 4.9% YoY. A significant YoY decrease in exposures to the other risks at the end of 2021 was a consequence of the closure of an open foreign exchange position which was temporarily maintained at the end of 2020 and at the beginning of 2021 by one commercial bank after creating provisions for settlement agreements. The total amount of exposure to risk increased by 1.4% YoY.

Table 23 Own funds, risk exposure amount

	Value (in PLN million)		YoY change	
	Dec 21	Dec 20	PLN billion	%
Own funds				
banking sector	218.8	231.0	-12.2	-5.3%
commercial banks	205.6	218.0	-12.4	-5.7%
cooperative banks	13.2	13.1	0.2	1.2%
Tier 1 capital				
banking sector	196.4	206.5	-10.1	-4.9%
commercial banks	183.6	193.9	-10.3	-5.3%
cooperative banks	12.8	12.6	0.2	1.6%
Tier 2 capital				
banking sector	22.4	24.5	-2.1	-8.7%
commercial banks	22.0	24.1	-2.1	-8.7%
cooperative banks	0.4	0.4	0.0	-9.9%
Total risk exposure amount				
banking sector	1 133.3	1 117.9	15.4	1.4%
commercial banks	1 062.0	1 048.9	13.1	1.2%
cooperative banks	71.3	69.0	2.3	3.3%
Amount of exposure: credit risk				
banking sector	1 013.8	986.4	27.4	2.8%
commercial banks	951.3	926.3	25.0	2.7%
cooperative banks	62.5	60.0	2.4	4.1%
Amount of exposure: operational risk				
banking sector	103.6	98.8	4.9	4.9%
commercial banks	94.8	89.8	5.0	5.6%
cooperative banks	8.8	9.0	-0.1	-1.5%
Amount of exposure: other risks				
banking sector	15.8	32.7	-16.9	-51.6%
commercial banks	15.8	32.7	-16.9	-51.6%
cooperative banks	0.0	0.0	0.0	2 329.8%

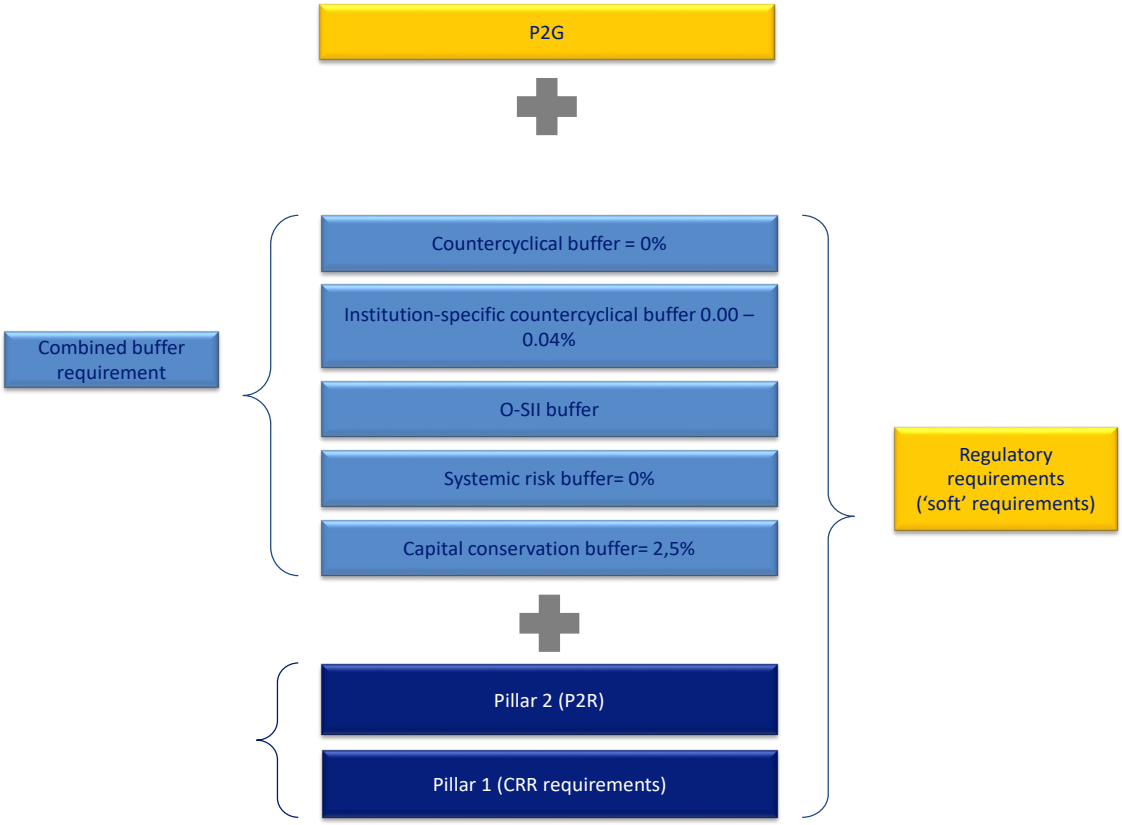
2021 saw a decrease in the value of own funds due to the effect of the interest rate increase on the items classified as 'Accumulated other comprehensive income'. In particular, an increase in the rate of return on bonds led to a reduction in the valuation of bonds purchased by banks prior to interest rate rises, measured at fair value through other comprehensive income. The decrease in the value of own funds, with a slight increase in the risk exposure amount, resulted in a reduction of the total capital ratio (TCR) by 1.4 pp YoY. TCR at the end of 2021 for the entire banking sector was 19.3%: 19.4% for commercial banks, and 18.5% for cooperative banks.

Table 24 Capital ratios (in %)

	Dec 21	Dec 20	YoY change (pp)
TCR – total capital ratio			
banking sector	19.3%	20.7%	-1.4
commercial banks	19.4%	20.8%	-1.4
cooperative banks	18.5%	18.9%	-0.4
T1 – Tier 1 capital ratio			
banking sector	17.3%	18.5%	-1.1
commercial banks	17.3%	18.5%	-1.2
cooperative banks	18.0%	18.3%	-0.3
CET1 – Common Equity Tier 1 capital ratio			
banking sector	17.3%	18.5%	-1.1
commercial banks	17.3%	18.5%	-1.2
cooperative banks	18.0%	18.3%	-0.3

The surplus of banks' capital above the minimum requirement increased by the combined buffer requirement was PLN 91.2 billion at the end of 2021 (PLN 99.7 billion at the end of 2020).At the end of 2021, one commercial bank failed to meet the regulatory requirements on minimum capital ratios. Its share in the banking sector's assets was below 2%.

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 of the additional capital requirement increase the value of the minimum regulatory capital ratios and the minimum ratios recommended by the KNF.

In 2021, an additional capital requirement was imposed on banks with significant exposure on foreign-currency mortgage loans to households. Following materiality thresholds apply:

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 the survey not being part of mandatory reporting:

- 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 defines an additional level of CET1 capital (capital add-on) that banks should aim to maintain 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 2022 by KNF's Position of 9 December 2021.

The P2G capital add-on is composed of two levels: basic and additional. The basic add-on is determined on the adverse scenario stress test results (general macro-economic situation). The additional add-on is determined if additional material risks, not included or insufficiently included, in the macro-economic scenario, were identified. The additional add-on is determined on the basis of one or more additional scenarios.

The maximum rate of the capital add-on is 4.5%. In 2021, one additional risk was recognised as material risk: the credit risk associated with an increase in interest rates.

Other systemically important institutions (O-SIIs) in Poland in 2021

By decision of the KNF of 29 October 2021, ten banks were identified as O-SIIs, and the following buffer rates were set:

No.	Name	Post-2021 decision O-SII buffer rates	Pre-2021 decision O-SII buffer rates
1	PKO BP	**1.00%**	1.00%
2	Santander BP	**0.75%**	0.75%
3	Pekao	**0.75%**	0.75%
4	ING BSK	**0.75%**	0.50%
5	mBank	**0.50%**	0.50%
6	Bank Handlowy	**0.25%**	0.25%
7	BNP Paribas	**0.25%**	0.25%
8	Bank Millennium	**0.25%**	0.25%
9	Bank Polskiej Spółdzielczości	**0.10%**	0.10%
10	SGB Bank	**0.10%**	0.10%

The list of banks identified as O-SIIs has not changed in relation to last year.

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 tests as required in the EBA/GL/2018/02 guidelines.

All banks recognise interest rate risk as material and allocate internal capital for such risk. From 2019 to 2021, only one bank exceeded 20% of own funds for standard stress tests and 15% of Tier 1 capital for supervisory outlier tests. The other banks did not report exceedances of the limits defined in the EBA/GL/2018/02 guidelines.

Banks' internal capital is not always sufficient to cover the losses resulting from the analysis of stress tests and supervisory outlier tests. The sensitivity of most banks' net interest income is moderate (the average sensitivity of the sector is approx. -11% in the event of a decrease in interest rates by 100 bp).

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 maturity dates which arises from differences in the term structure 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 maturity dates, while some banks do not identify any basis risk or option risk.

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. 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).

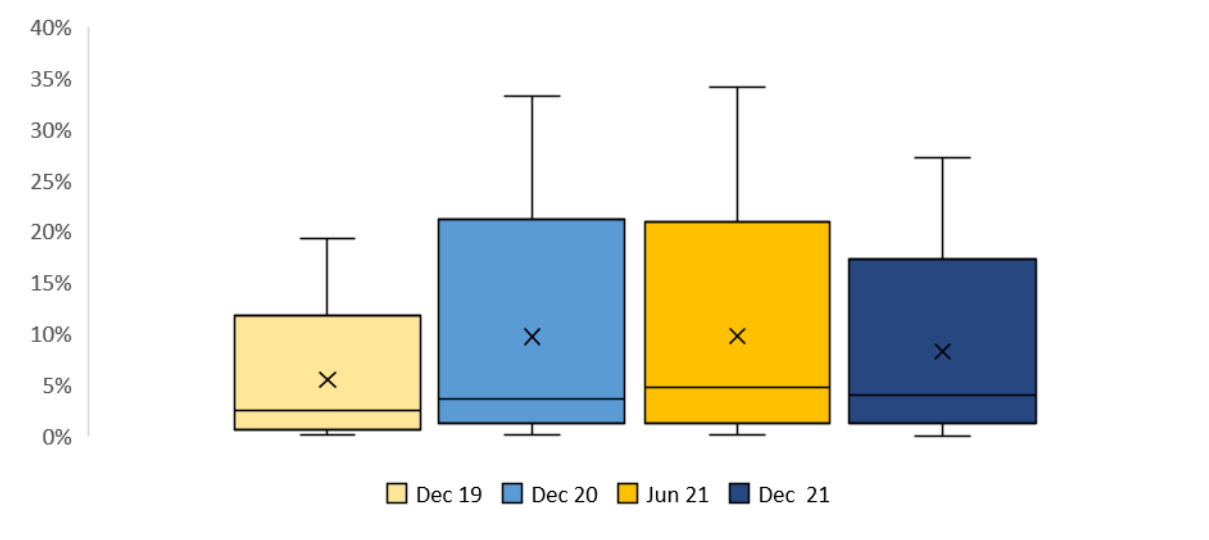
In most cases, banks confirm that they fulfil the requirements laid down in the EBA's guidelines in relation to the quality of management of interest rate risk arising from non-trading activities (for example they include the risk in the ICAAP) and they regularly carry out stress tests.

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).

After the 2020 increase in the banks' internal capital for the IRRBB in relation to their own funds, in 2021 that relation stayed predominantly at a level close to the 2020 level.

Diagram 56 Breakdown of the relation of internal capital for IRRBB to own funds in each year (sector)



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)

In September 2021, there became effective an amendment to the Act of 10 June 2016 on the Bank Guarantee Fund, the deposit guarantee scheme and forced restructuring (hereinafter: 'Act on the BFG'), which implements new rules on MREL laid down in Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms.

In accordance with the Act on the BFG, the Fund is required to determine in the restructuring plan for a given bank whether in the event of a threat of the bank's failure the restructuring procedure is to be initiated, or liquidation is to be conducted as part of a standard insolvency procedure. As a rule, the restructuring procedure applies to banks that provide critical services, or where the payment of guaranteed deposits would cause an excessive reduction in the deposit guarantee fund which reduction would have to be covered by extraordinary payments made by banks.

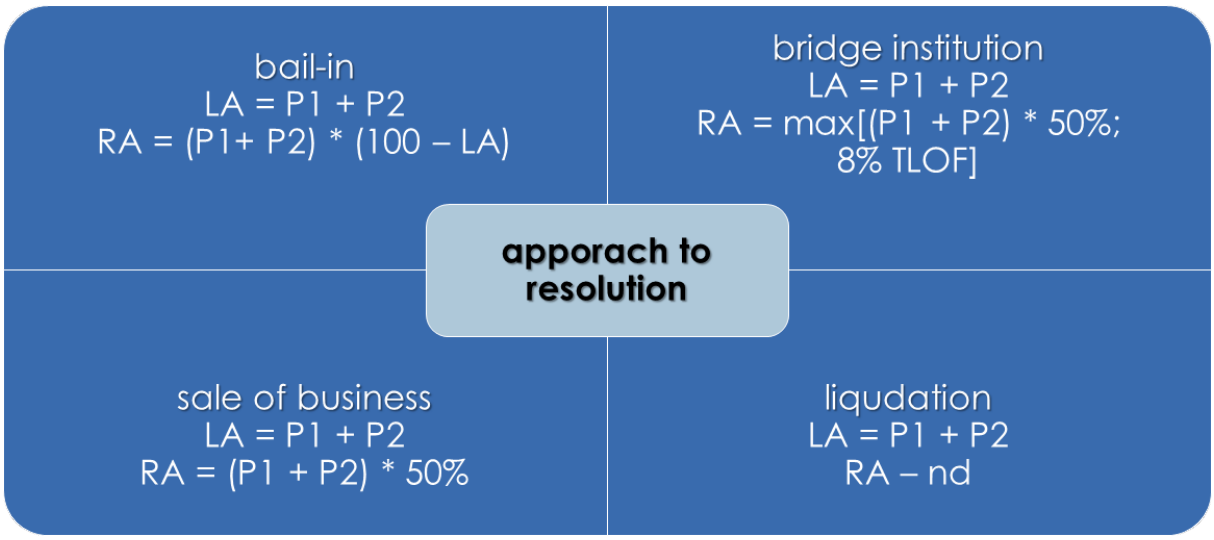
The new rules introduced two parallel MREL ratios: (1) defined as % of the total risk exposure amount (hereinafter: 'RWA') and (2) as % of the total exposure measure, i.e. leverage ratio denominator (hereinafter: 'TEM') Banks must meet the higher of the requirements. Additionally, the relevant own funds and eligible liabilities must not be lower than 8% of total own funds and liabilities.

In accordance with Article 128 of Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, the own funds used to meet MREL

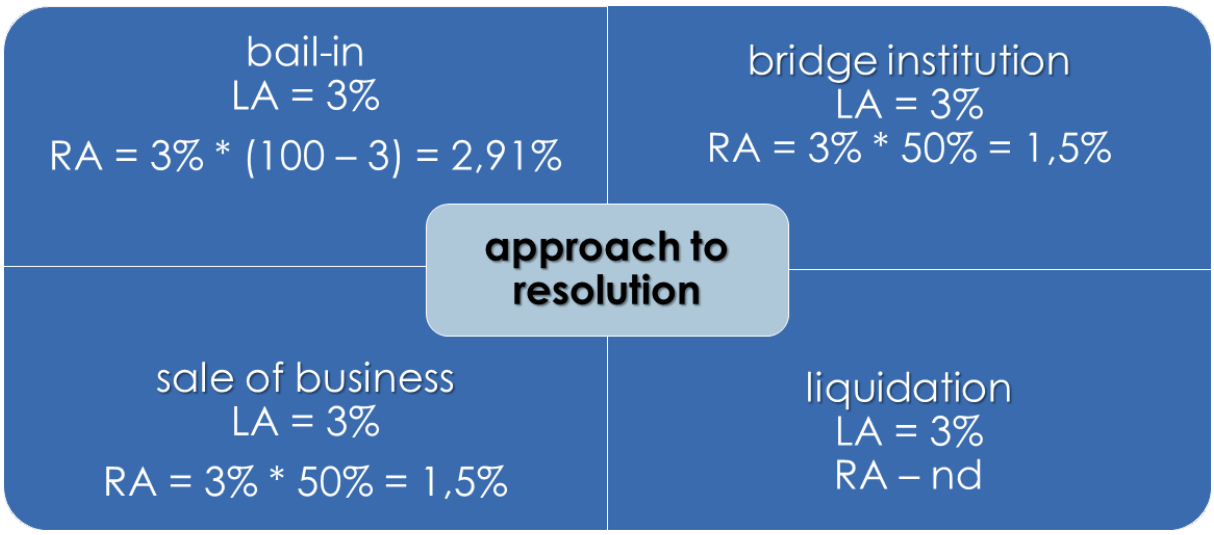
must not be used concurrently to meet the combined buffer requirement. This means in practice that the banks' actual demand for own funds and eligible liabilities is equal to the sum of MREL and the combined buffer requirement. The own funds maintained for MREL purposes may also be used to comply with the recommendation on own funds for the coverage of the additional capital add-on (P2G).

Depending on the approach to forced restructuring, MREL is determined according to the following formula:

Requirement in relation to RWA:



Requirement in relation to TEM:



(source: UKNF, based on data from the BFG)

Abbreviations:

LA – MREL relating to loss coverage

RA – MREL relating to recapitalisation

P1 – capital requirement under Pillar 1

P2 – capital requirement under Pillar 2

Level of compliance with MREL:

- banks following the 'failure' approach – the requirement should be fulfilled at individual level, regardless of whether the bank is ahead of a group;

- a bank following an approach other than 'failure' – the requirement should be fulfilled at consolidated level (unless the bank is within a group), save banks within European groups of credit institutions identified as global systemically important institutions (G-SIIs).

For banks within European groups of credit institutions identified as G-SIIs strategy of implementation of forced restructuring adopted by the forced restructuring authority is important. Strategies can be divided in two categories:

- *Single point of entry* (SPE), in which the resolution process is implemented simultaneously by the resolution authority competent for the parent entity and by the resolution authorities competent for the subsidiaries.
- *Multiple point of entry* (MPE), in which the decision to initiate resolution is taken regardless of each entity.

For the SPE strategy, MREL is determined at individual level, regardless of whether the bank is ahead of a group (the internal MREL, iMREL), for the MPE strategy – at consolidated level. For the MPE strategy, the bank is also subject to the requirement on TLAC at 18% of RWA and 6.75% of TEM, while for the SPE strategy the Fund applies the so-called public trust buffer, which corresponds to the difference between RWA on a individual basis and RWA on a consolidated basis.

Banks following the 'failure' approach must fulfil MREL since notification from the BFG, technically already since 2017. For other banks, the target level of MREL should be reached by 31 December 2023. Additionally, the BFG set mid-term targets those banks should meet in the period of reaching the target level. The first binding mid-term target was set as at 31 December 2021, and the level will be rising in subsequent years.

Mortgage banks are exempted from MREL, and when calculating MREL at consolidated level (for a multi-purpose bank), the assets of a mortgage bank are not included in RWA/TEM.

Compliance with the target MREL level

Banks can acquire MREL instruments through the issue of eligible instruments, including bank securities, or through the reduction of RWA by way of securitisation.

Potential barriers to compliance with the target MREL level:

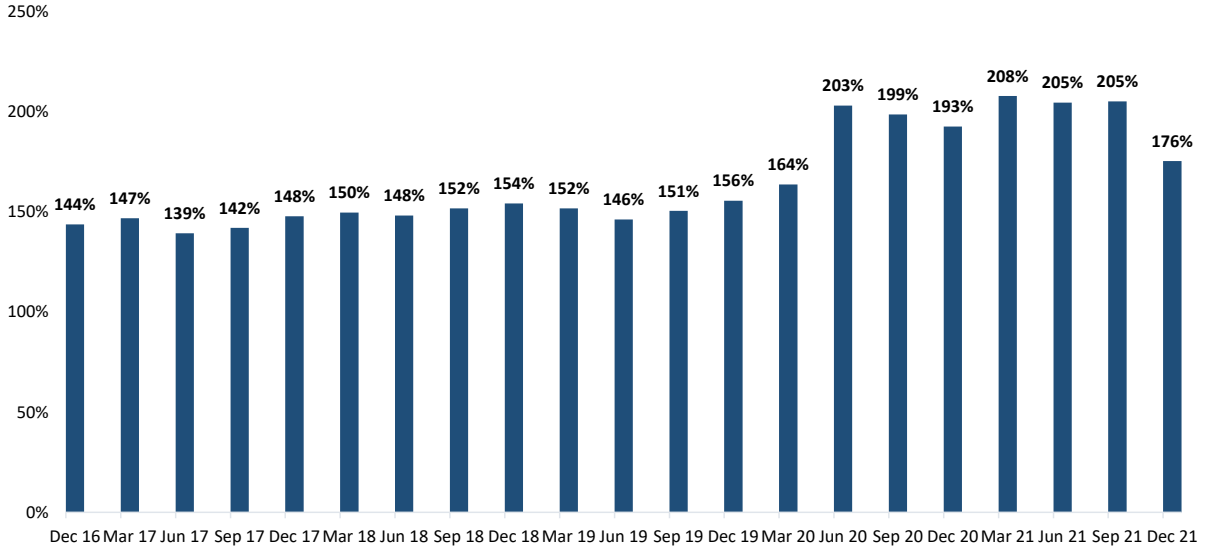
- the unresolved issue of CHF loans – the risk of further losses, reducing own funds,
- the need to carry out an issue in an international market (higher costs of the issue, foreign exchange risk),
- missing amendment to the Act on bonds, preventing the issue of AT1 instruments,
- restoration of the systemic risk buffer,
- the expiration of the transition period for the settlement under IFRS 9, COVID – more reductions of own funds,
- more reductions of own funds due to non-performing loans (the NPL backstop means that banks must reduce the CET1 funds by the value of non-performing loans in the portfolio after a certain period following the recognition of the loan as an NPL, regardless of the collateral held),
- regulatory changes under the CRR3 (in particular, the abandonment of statistical methods for setting capital requirements on account of credit risk and operational risk).

9. Liquidity

At the end of 2021, all banks complied with the applicable short-term liquidity standard – LCR (commercial banks and cooperative banks operating outside the institutional protection schemes (IPS) – individually, and banks participating in an institutional protection scheme – at

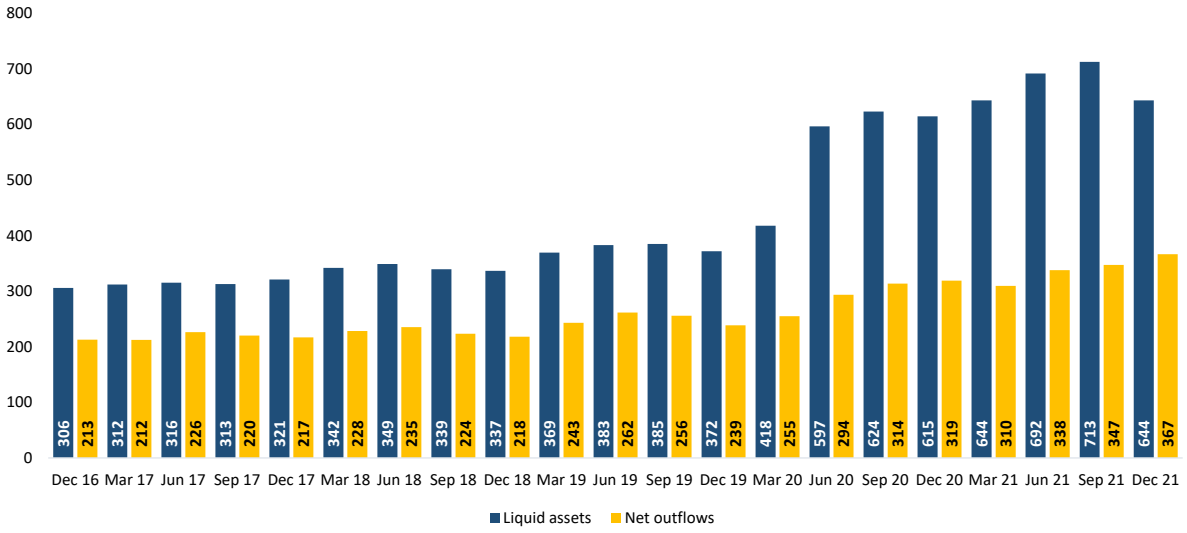
IPS level). The average value of that ratio in the commercial banks sector has for years exceeded the required minimum of 100%, reaching 176% at the end of 2021.

Diagram 57 LCR



In 2021, the very rapid increase in liquid assets (resulting from the inflow of aid measures applied in response to the outbreak of the COVID-19 pandemic) slowed down but the liquidity position in the commercial banks sector in 2021 was very good.

Diagram 58 Liquid assets and net outflows (in PLN billion)



The net stable funding ratio (NSFR) in the commercial banks sector, since it became a regulatory requirement for banks (i.e. since 28 June 2021), has been above 100%. At the end of 2021, the ratio reached 147%.

Diagram 59 NSFR

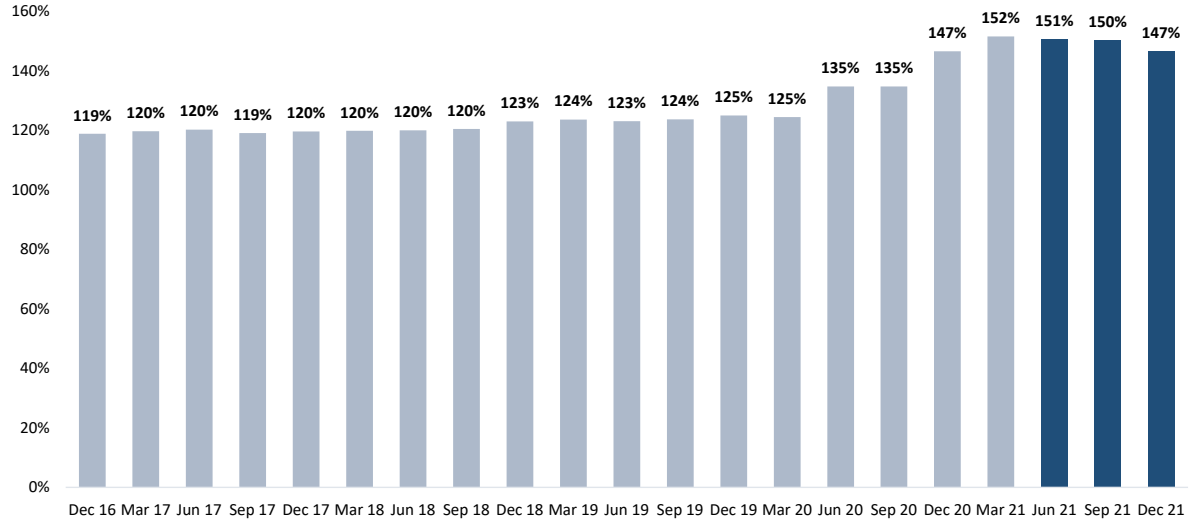
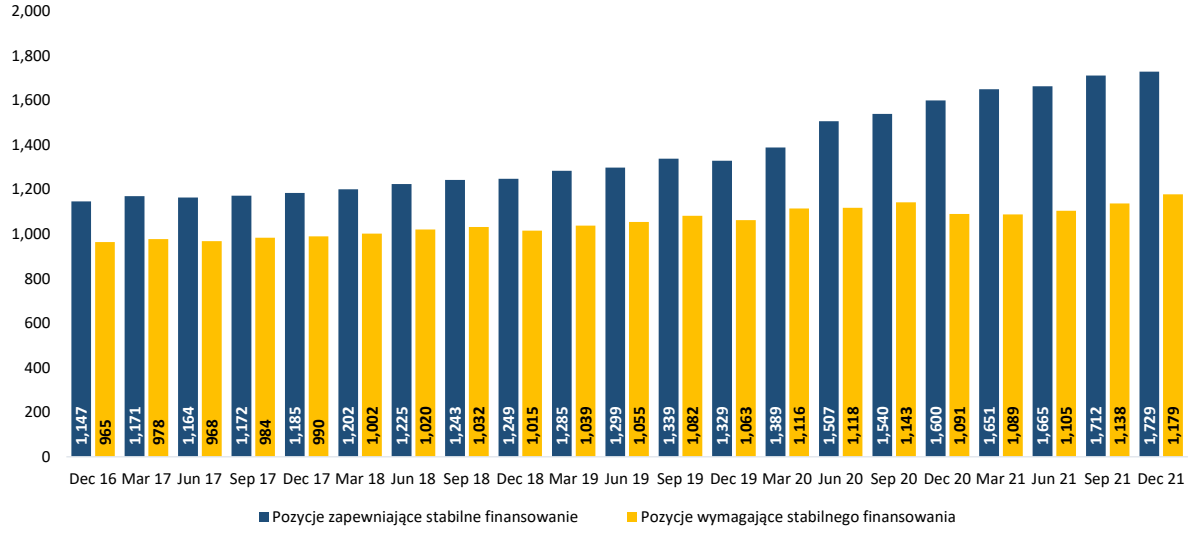


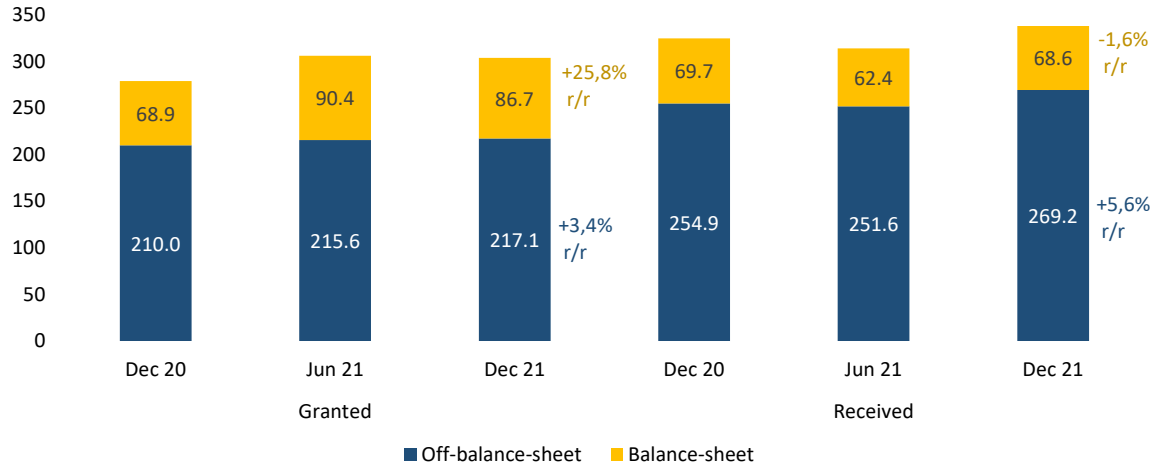
Diagram 60 Items ensuring stable financing and requiring stable financing (PLN billion)



10. Financing in transactions with affiliates

In December 2021, commercial banks provided the affiliated entities with the funding of PLN 303.8 billion (a YoY increase of 8.5%), of which 71.5% constituted off-balance-sheet financing. In turn, commercial banks received the funding from related entities in the amount of PLN 337.8 billion (a YoY increase of 4.1%), of which 79.7% constituted off-balance-sheet financing. The scale of off-balance-sheet financing (granted and received) in 2021 increased compared to 2020; the scale of balance-sheet financing granted also increased (25.8% YoY). At the same time, the scale of balance-sheet financing received went down (by 1.3% YoY). The total financing balance amounted to PLN 34.0 billion in 2021 and decreased by PLN 11.7 billion YoY, mainly due to a significant increase in the balance-sheet financing granted, not compensated with a corresponding increase in the balance-sheet financing received.

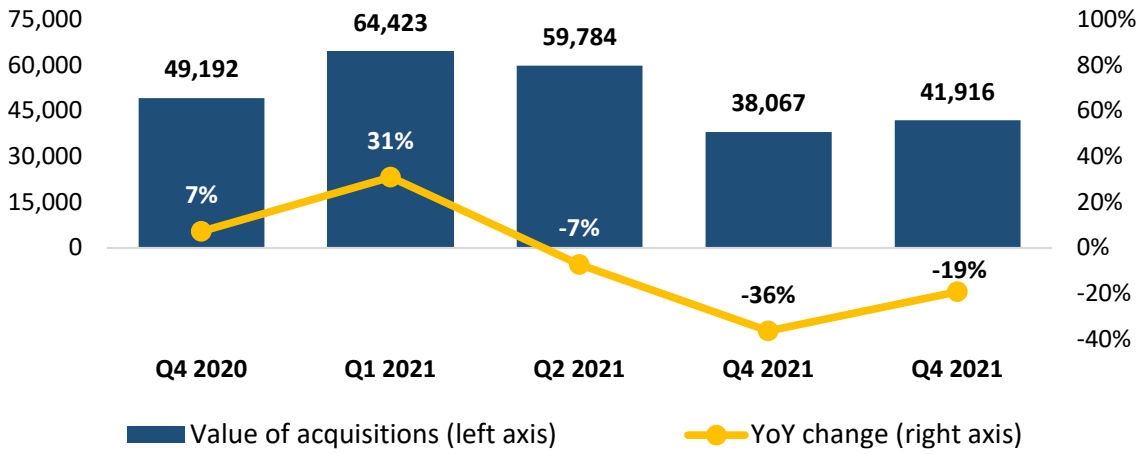
Diagram 61 Funding structure in PLN billion



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

Customers of banks conducting brokerage activities, pursuant to Article 70(2) of the Act on trading in financial instruments, purchased in the fourth quarter of 2021 financial instruments (excluding derivatives) in the amount of PLN 41.9 billion, that is 19% less than in the same quarter of the previous year. In the first quarter of 2021, the amount of acquisitions effected by customers reached a record level, and declined in subsequent quarters.

Diagram 62 Value of acquisitions of financial instruments in the period from Q4 2020 to Q4 2021 (in PLN million)



The decrease in the total value of acquisitions of financial instruments was caused by the decrease in the value of acquisitions of other bonds (mostly Treasury bonds), i.e. by PLN 7.0

billion YoY, and by the decrease in the participation units of open-end investment funds, i.e. by PLN 1.9 billion YoY. Other bonds are still the dominant financial instrument in terms of acquisitions but their share declined over the year by 6 pp to 59%.

Diagram 63 Structure of changes in acquisitions of financial instruments in the period from Q4 2020 to Q4 2021 (in PLN million)

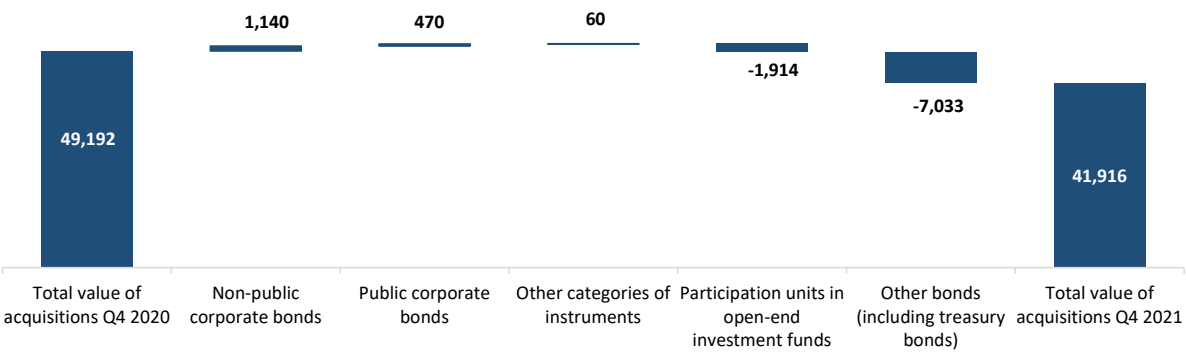
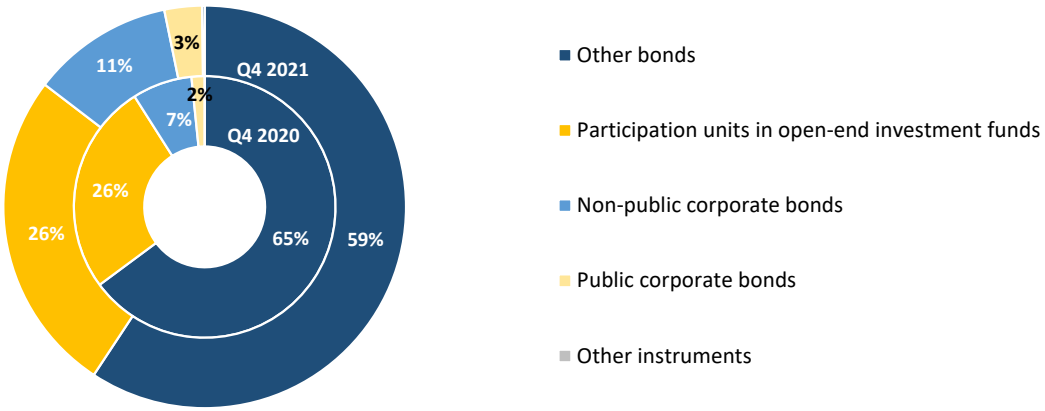
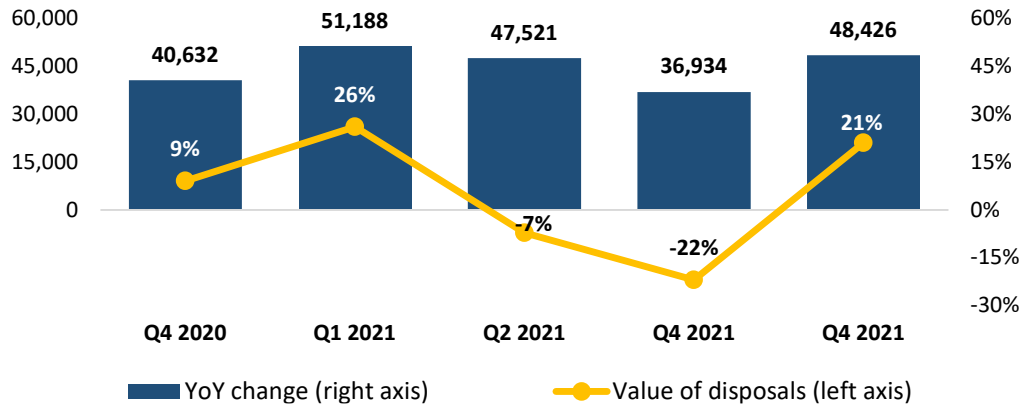


Diagram 64 Structure of acquisitions of financial instruments in the period from Q4 2020 to Q4 2021



The scale of disposal of financial instruments by customers of the banks referred to in Article 70(2) of the Act on trading in financial instruments increased YoY at the end of 2021, although the highest level of the value of disposal was recorded in the first quarter of 2021.

Diagram 65 Value of disposal of financial instruments in the period from Q4 2020 to Q4 2021 (in PLN million)



The increase in the total value of disposal of financial instruments was determined by the increased value of redemption of participation units of open-end investment funds following the interest rate increase at the end of the year.

Diagram 66 Structure of changes in the disposal of financial instruments in the period from Q4 2020 to Q4 2021 (in PLN million)

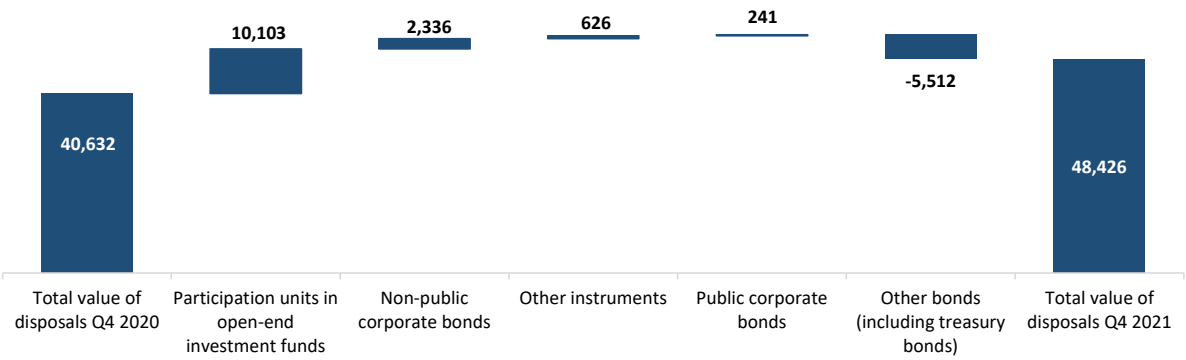
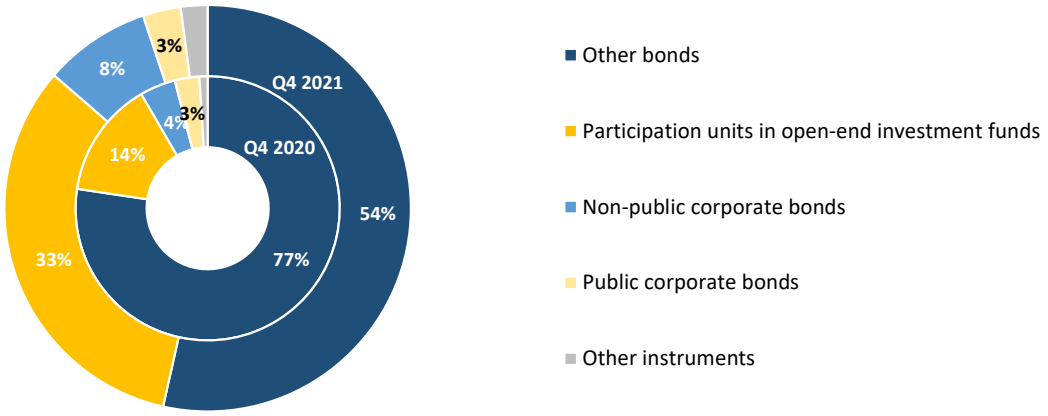


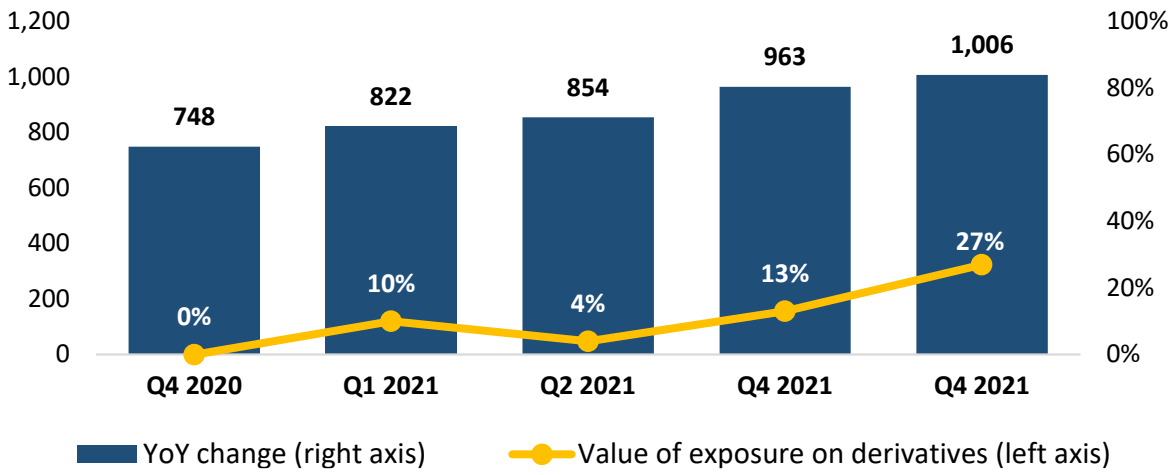
Diagram 67 Structure of disposal of financial instruments in the period from Q4 2020 to Q4 2021



As regards trading in derivatives, the activity of bank customers is steadily growing. Moreover, in the fourth quarter, the value of exposure on derivatives reached the highest value since banks began reporting sales activities (PLN 1.0 trillion).

The largest item among derivatives were swaps, with value of exposure at PLN 756.0 billion at the end of 2021 (a YoY increase of PLN 153.3 billion). The second largest share in the value of exposure on derivatives were forward contracts (PLN 149.4 billion, a YoY increase of PLN 51.7 billion).

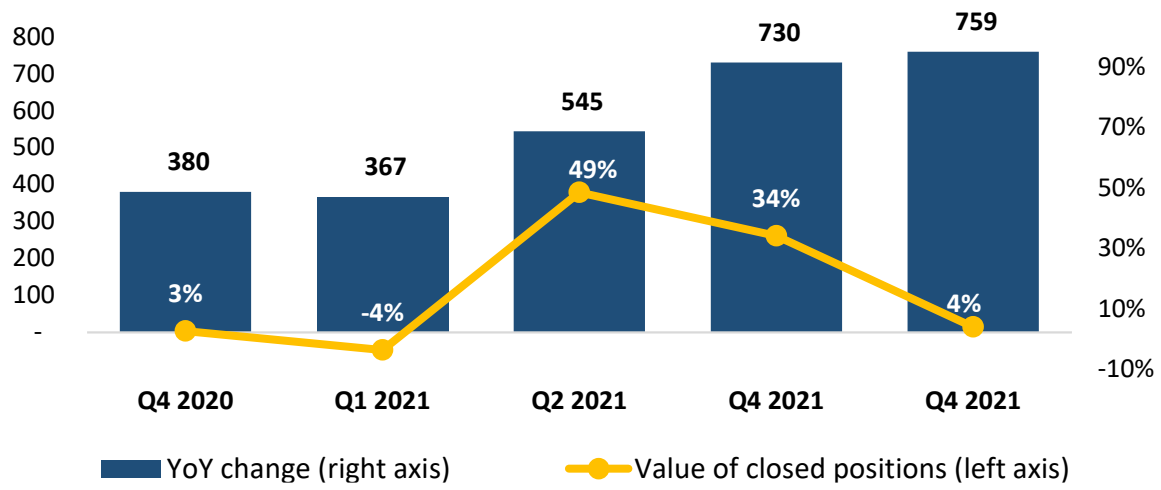
Diagram 68 Changes in the value of exposure on derivatives in the period from Q4 2020 to Q4 2021 (in PLN billion)



Customers' growing activity in the area of trading in derivatives can also be seen in the case of closed positions. Some customers began entering into more contracts for shorter terms. The biggest spike in value took place in the second quarter of 2021. As a result the value of closed positions on derivatives halved over the year. In particular, the intensity of trade could

be seen in the area of forward contracts – the value of closures increased from PLN 104.0 billion in the fourth quarter of 2020 to PLN 352.3 billion a year later.

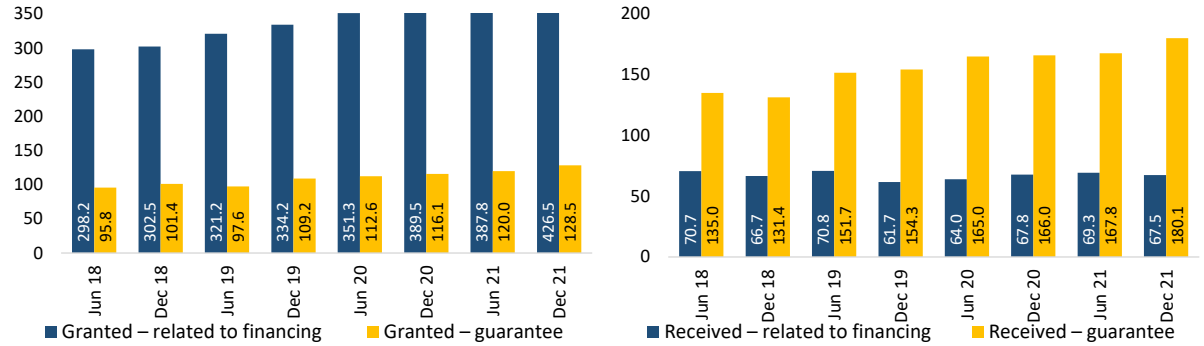
Diagram 69 Changes in the value of closed positions on derivatives in the period from Q4 2020 to Q4 2021 (in PLN million)



12. Off-balance-sheet commitments

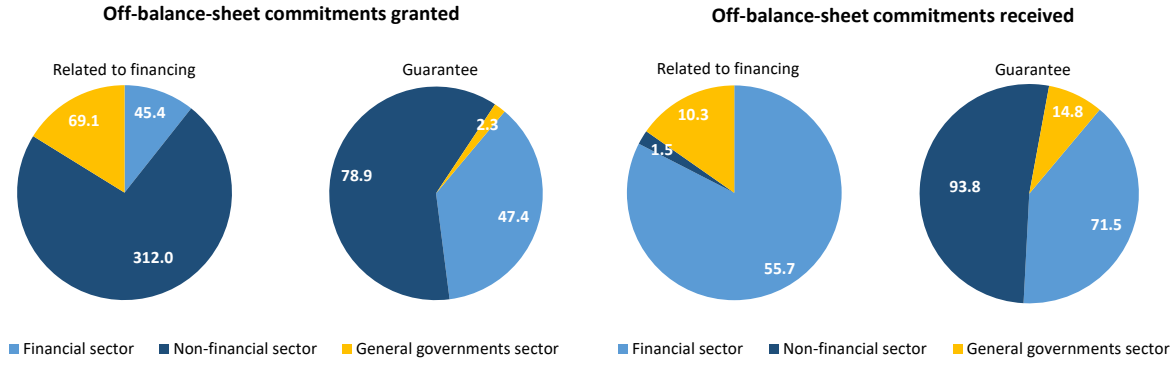
In 2021, in the banking sector, as in previous years, there continued the trend of a growing volume of off-balance-sheet financing commitments granted, and guarantee commitments received. Two thirds of the financing commitments granted were credit lines, and a half of guarantees received were the guarantees of loan repayment.

Diagram 70 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 2021. 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 71 Off-balance-sheet commitments – structure by entity (December 2021, PLN billion)



13. Payment transactions and fraudulent transactions at commercial banks in 2021

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 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 Payment Services Directive 2 (PSD2), introduced to the Polish legal order by the Act of 10 May 2018 amending the Act on payment services and certain other acts (Journal of Laws 2018, item 1075). 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. In the context of implementation of the PSD2, the year 2021 was marked predominantly by full implementation of strong customer authentication (SCA) on 1 January 2021, which has enriched the payment architecture with advanced technological solutions, and specific synergy between the IT business and the banking sector. 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, for example the Access to Account (XS2A) service. In general, only customers of banks have had so far 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 2021 also marks another stage of completion of Open Banking, defined as a new payments market operated by both domestic

banks and other non-bank payment providers which can serve as a basis for creating smart finance applications in the future.

The total number of payment transactions effected by commercial banks in 2021 is 15.9 billion operations (a YoY increase of 14.6%) worth PLN 32.3 trillion (a YoY increase of 41.4%). The average value of a payment transaction was PLN 2.03 thousand (a YoY increase of 22.9%). 5 supervised entities executed altogether more than 75% of the payment transactions of the entire banking sector.

Fraudulent transactions

The definition of fraudulent transaction is based on the substantial scope of EBA Guidelines on reporting requirements for fraud data under Article 96(6) of the PSD2 (EBA/GL/2020/01)[5]. The guidelines contain detailed information about statistical data on fraud related to different means of payment that payment service providers (including banks) have to report to their competent authorities.

A bank, as a payment service provider, should report all fraudulent payment transactions from the time fraud has been detected, such as through a customer complaint or other means, regardless of whether or not the case related to the fraudulent payment transaction has been closed by the time the data are reported. The provider should also report all adjustments to the data referring to any past reporting period at least up to one year during the next reporting window after the information necessitating the adjustments is discovered.

The guidelines on fraud reporting apply from 1 January 2019, with the exception of the reporting of data related to the exemptions to the requirement to use strong customer authentication provided for in Commission Delegated Regulation (EU) 2018/389 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, which will be applicable from 14 September 2019.

A fraudulent transaction should be understood as:

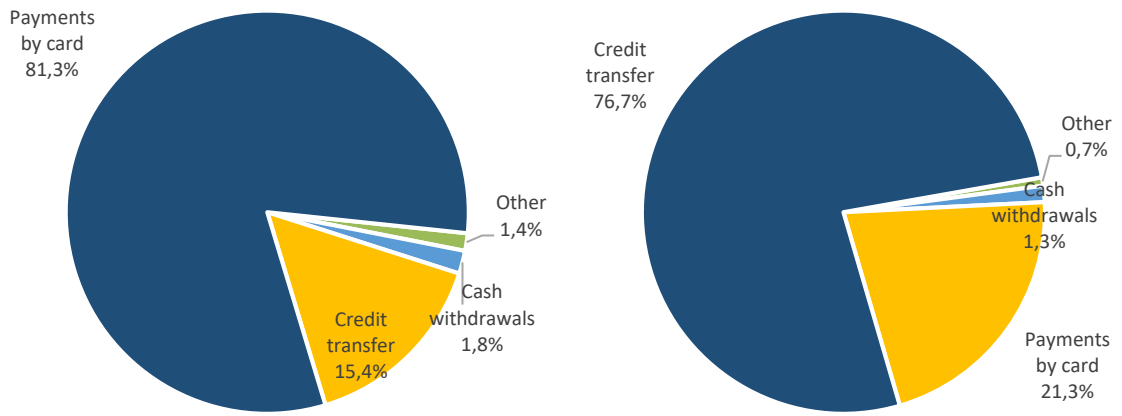
- an unauthorised payment transaction made, including as a result of the loss, theft or misappropriation of sensitive payment data or a payment instrument, whether detectable or not to the payer prior to a payment and whether or not caused by gross negligence of the payer or executed in the absence of consent by the payer (‘unauthorised payment transaction’);
- a payment transaction made as a result of the payer being manipulated by the fraudster to issue a payment order, or to give the instruction to do so to the payment

5 https://www.eba.europa.eu/sites/default/documents/files/document_libraryPublications/Guidelines/2018/Guidelines%20on%20fraud%20reporting%20under%20PSD2%20%28EBA-GL-2018-05%29/Updated%20Translations%20Consolidated/EBA%202018%20Guidelines%20on%20fraud%20reporting%20-%20Consolidated%20version%20v2_PL.pdf

service provider, in good-faith, to a payment account it believes belongs to a legitimate payee ('manipulation of the payer').

The total number of fraudulent payment transactions effected by commercial banks in 2021 was 290.7 thousand operations (a YoY decrease of -7.0%) worth PLN 364.9 million (a YoY increase of 37.4%). The average value of a fraudulent payment transaction was PLN 1.25 thousand (a YoY increase of 47.3%).

Diagram 72 Number (the left circle) and value (the right circle) of fraudulent payment transactions in 2021



The largest group of fraudulent payment transactions are payments by card – 81.3% (a YoY decrease of -2.0 pp) of all payment transactions, which is mainly due to the link between such type of fraud and the e-commerce market. However, in comparison with the value generated by each type of fraudulent transaction, payments by card account for only 21.3% (a YoY decrease of -15.0 pp) of all such types of fraud. 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 of the online banking user or access the user's interface.

Although credit transfer accounts for only 15.4% (a YoY increase of 8.6 pp) of all fraudulent transactions, it also accounts for as much as 76.7% (a YoY increase of 17.4 pp) of the value of all fraudulent transactions. This is due from the possibility of siphoning much bigger sums than in the case of payments by card: increasing 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 providers of the payment transaction initiation service, acquired payments by card, credit transfer, payment transactions using electronic money, and money remittance, which do not exceed (from any of the perspectives

analysed) 5% of all fraudulent transactions. One can notice, however, a shift in fraudulent transactions towards payment by card.

Diagram 73 Fraudulent payment transactions in 2021 – non-remote transfers (the left circle) and remote transfer (the right circle)

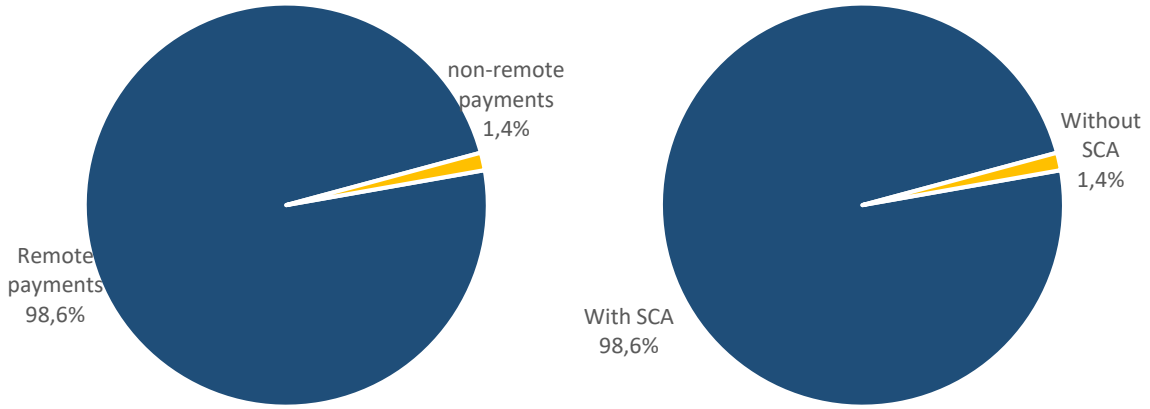
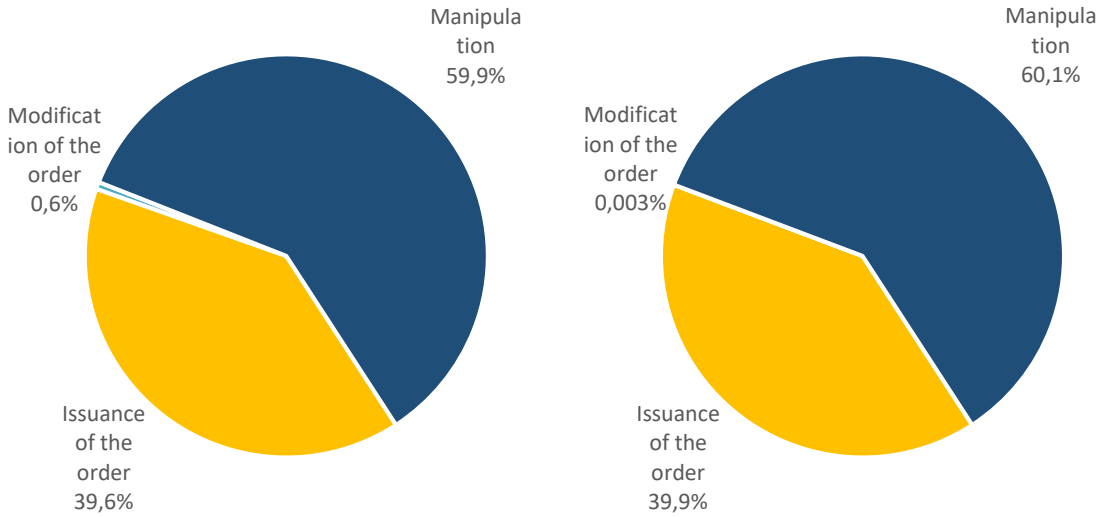


Diagram 74 Fraudulent payment transactions in 2021 – remote transfers with SCA (the left circle) and remote transfers without SCA (the right circle)



In regard to credit transfers, the predominant fraudulent transactions are those executed as part of remote payments. 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. Where the SCA is not applied, similar methods are the most common ones. No relevant number of cases of fraud has however been seen in this case for transactions exempted from the SCA under the provisions of the delegated regulation and the directive, such as:

- low value (Article 16 of the regulatory technical standards),
- trusted beneficiary (Article 13 of the regulatory technical standards),
- recurring transaction (Article 14 of the regulatory technical standards),
- application of secure corporate payment processes and protocols (Article 17 of the regulatory technical standards),
- transaction risk analysis (Article 18 of the regulatory technical standards) carried out by the bank.

Diagram 75 Fraudulent payment transactions in 2021 – cards (the left circle) and remote transactions (the right circle)

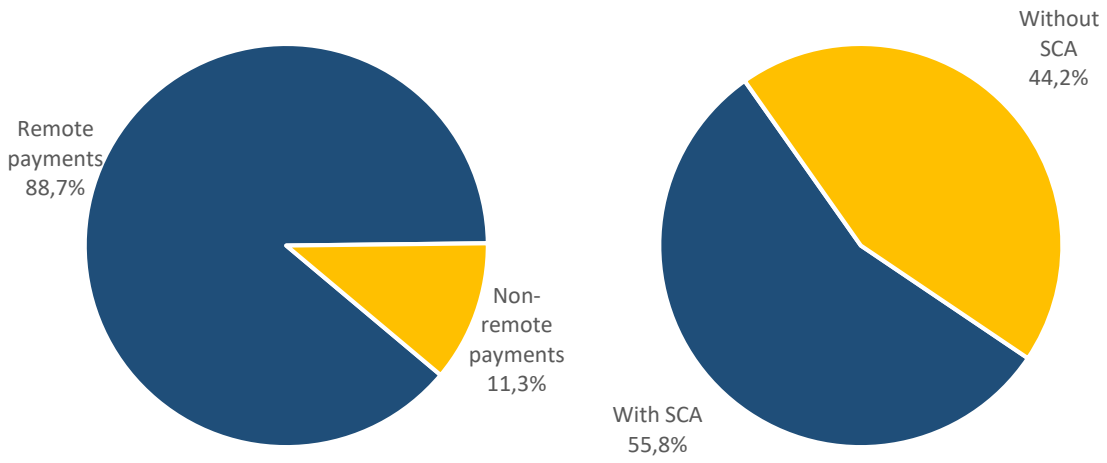
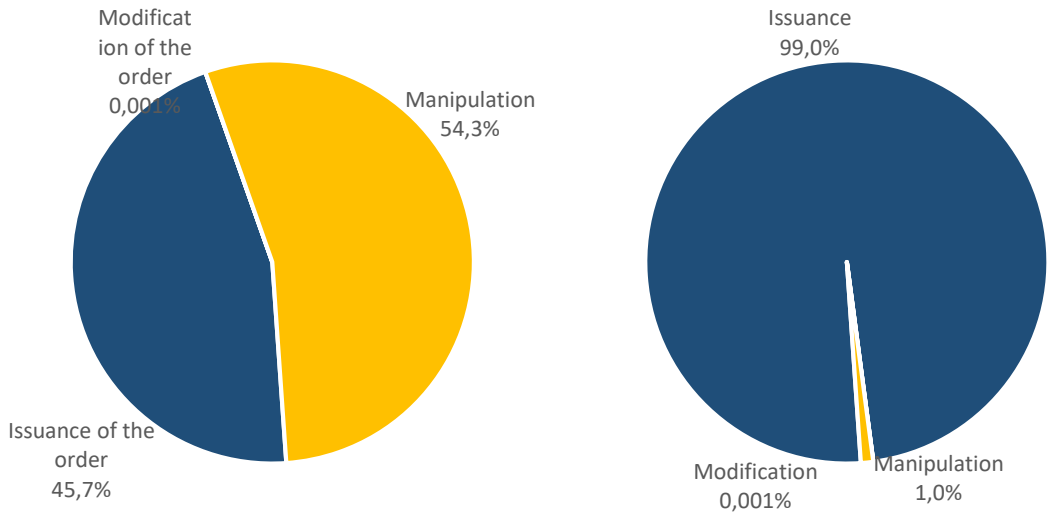


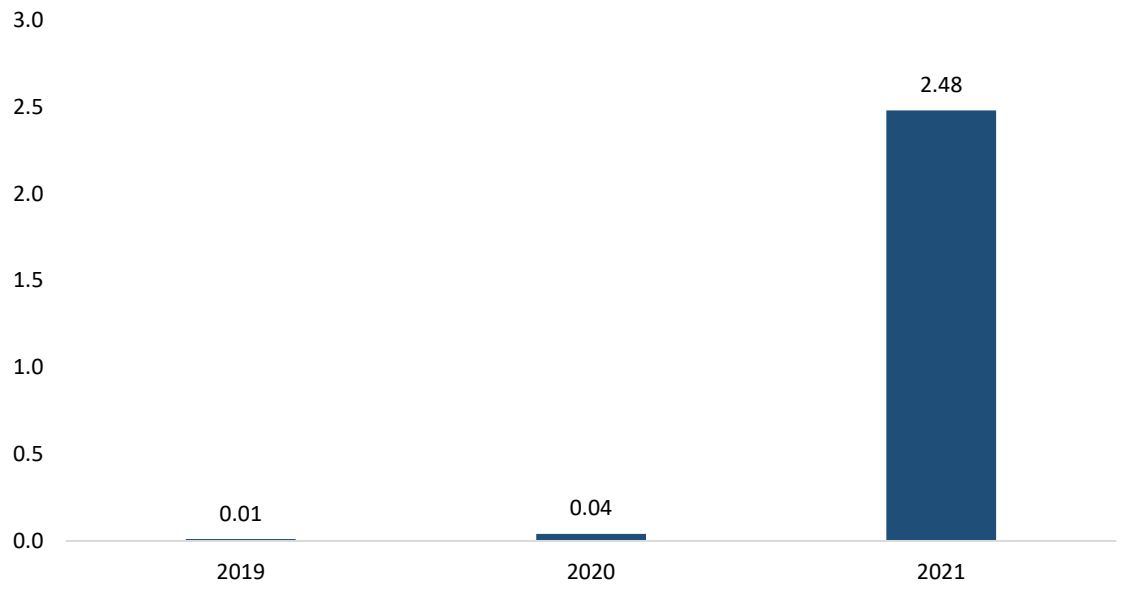
Diagram 76 Fraudulent payment transactions in 2021 – cards, remote transactions with SCA (the left circle) and cards, remote transactions without SCA (the right circle)



Open Banking

It should also be noted that 2021 was a landmark year when it comes to banks using API access interfaces and providing the payment initiation service. Those services have so far been reserved for third parties (payment initiation service – PIS).

Diagram 77 Banks as payment initiation service providers (PLN billion)



The payment initiation services (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, PIS is used in electronic commerce, where the third party provider 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 a user (defined as payer) wishes to use the PIS, after placing an order, for example 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 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.

More commercial banks have recently began 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 2.5 billion, which is a significant increase compared to previous years.

To conclude, an upward trend can be seen in the share of fraudulent transactions, related mainly to the social engineering activity of fraudsters. The current legal and organisational conditions of strong customer authentication have forced entities to introduce special technological solutions. At the same time, following the completion of the migration stage, which has recently encumbered the internal resources of banks, further consistent commercial use of the solutions under the PSD2 can be seen. An important part of supervisory activities will be, in particular, a more detailed analysis of reports in the context of identification of main threats in payment services to focus on the most relevant areas, and the identification of new payment trends in commercial banking.

14. Sustainable finance (ESG criteria)

On 21 July 2021, the UKNF presented its Strategy for the years 2021–2025, which is a set of strategic changes that allow for the management of development and transformation of the UKNF into a modern multi-tasking organisation. The changes in the UKNF's activities also include sustainable finance and ESG criteria by incorporating in supervisory processes the following objective: the commitment of supervised entities to sustainability (compliance with ESG criteria). As part of that objective, the UKNF regularly undertakes actions to raise awareness of the existing ESG risks and supports the process of building the supervised institutions' capacity to properly consider such risks. In 2021, special efforts were made to ensure banks' compliance with regulatory ESG requirements, currently relating to disclosures and reporting: in particular in relation to the provisions of Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector (Sustainable Finance Disclosure Regulation – SFDR), and Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088.

Sustainability risks

Key provisions of the SFDR became effective in the EU on 10 March 2021. Under the Regulation, banks must publish on their websites information about their policies on sustainability risks (i.e. the impact of ESG factors on the value of the investment), i.e.:

- information about their policies on the integration of sustainability risks in their investment decision-making process (Article 3 of the SFDR);

- information on how the remuneration policies are consistent with the integration of sustainability risks (Article 5 of the SFDR).

For banks that provide portfolio management, the obligation to publish information on websites applies also to the information indicated in Article 4(1) and (2) of the SFDR, i.e. a statement on due diligence policies with respect to adverse impacts on sustainability factors, or where they do not consider such impacts – reasons for why they do not do so.

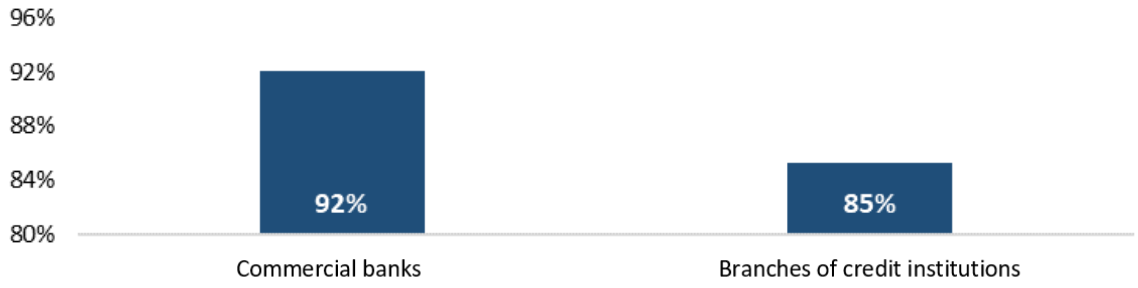
High remuneration and gender pay gap

In 2021, at 3 commercial banks, a total of 3 members of management staff earned remuneration of more than EUR 1 million, which means a decrease by two individuals compared to 2020. The average remuneration above EUR 1 million per person also decreased: in 2021 it amounted to EUR 1.1 million.

As regards the gender pay gap, the 2021 relation of the average total remuneration of women to the average total remuneration of men was:

- 92.0% in the sub-sector of commercial banks;
- 85.3% in the sub-sector of branches of credit institutions.

Diagram 78 Ratio of average remuneration of women to average remuneration of men



15. Cloud computing in the banking sector

Cloud computing is becoming the most common solutions which enables bank to implement their digital strategies. The benefits from implementation of cloud computing, including a more effective adaptation to the changing business environment, support the operation of commercial banks in this area.

The development of cloud projects in the Polish banking sector is supported by the consensus achieved among all market participants involved in this initiative. The UKNF, banks and tech companies acting as providers have come up with the necessary requirements for secure functioning of entities using cloud services.

In 2021, 13 entities submitted a total of 23 notifications on the use of the cloud, including 11 commercial banks and 2 branches of credit institutions, which accounted for approx. one third of all commercial banks (37%) and approx. 5% of all branches of credit institutions, respectively. In most cases, banks use the cloud to store and process customer data (including biometric data) which are necessary to provide banking services.

At the same time banks that up to now have not used any cloud-based solutions declare that they wish to implement them in the future.

LIST OF TABLES

LIST OF DIAGRAMS

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