INFORMATION ON THE SITUATION OF THE BANKING SECTOR IN 2020

Study:

Commercial and Specialist
Banking Department
Banking Sector Analyses Unit

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This information on the banking sector deals with trends in the economic and financial situation of banks and branches of credit institutions in 2020. Events occurring after the cut-off date were not included in the report.

Essential information

The situation of the Polish banking sector in 2020 was affected mainly by the consequences of the COVID-19 pandemic and rising legal risk related to the portfolio of mortgage-backed housing loans in foreign currency (hereinafter: RRE (FX) portfolio) The most important factors affecting the results of banks include:

- the temporary shutdown of certain industries as a result of opposing the spread of the pandemic, which resulted in negative GDP growth and a rising NPL risk;
- a slowdown in lending, except for the rising volume of real estate loans for households;
- a large increase in the number of court cases related to RRE (FX) loans, leading to a considerable increase in the level of provisions of banks exposed to the risk of this portfolio;
- the three cuts of the reference rate made by the Monetary Policy Council on 17 March (by -0.50 p.p.); 8 April (by -0.50 p.p.) and 28 May (by -0.40 p.p.) down to the historical low of 0.1%;
- the introduction of moratoria and government aid to prevent the potential credit risk from materialising, as well as an increase in deposits and volumes of debt instruments in the balance sheets of banks.

In 2020, the Financial Supervisory Authority (hereinafter: the KNF or the regulatory body) undertook activities to improve the safety of the banking sector by strengthening the capital foundation of banks and taking action to extend their operational potential. In its communications of 26 March and 16 December 2020, the KNF called on commercial banks to refrain from paying out dividends in 2020 and the first half of 2021, and to avoid any other actions, in particular those not justified by current business and operational activities, which could prejudice their capital base.

Considering the role of banks in supporting the financial situation of their customers and financing the economy, the regulatory body launched a package of activities that injected extra resilience into the banking sector and its ability to finance the economy in connection with the COVID-19 pandemic, the so-called "Supervisory Stimulus Package for Security and Development" (SSP)¹.

¹ https://www.knf.gov.pl/knf/pl/komponenty/img/Pakiet_Impulsow_Nadzorczych_na_rzecz_Bezpieczenstwa_i_ Rozwoju_69277.pdf

The most important details of the banking sector in 2020:

- Stable structure of the bank sector: number of commercial banks unchanged, number of branches of credit institutions increased by 4, number of cooperative banks decreased by 8 in accordance with the trend prevailing in recent years.
- 2020 was another year when the banking network was observed to shrink and employment was reduced.
- The concentration of the banking sector rose slightly both as regards assets and deposits of the non-financial sector.
- The net financial result realised in 2020 was PLN 931.5 million, less by 93.3%, or PLN 12,874.7 million, than in 2019.
- The effectiveness of the sector expressed as return on equity (ROE) was lower by 6.4 p.p. compared to the end of 2019, decreasing to 0.30% at the end of December 2020.
- Gross receivables (except for debt securities) from the non-financial sector increased over the year by PLN 5.7 billion (by 0.5%).
- The quality of receivables (except for debt securities) from the non-financial sector deteriorated: the share of stage 3/impaired receivables increased from 6.63% at the end of 2019 to 6.95% at the end of 2020, with the deterioration affecting receivables from both enterprises and households.
- Deposits of the non-financial sector increased during the year by PLN 165.2 billion (+13.0% YoY), which caused the loans/deposits ratio to decrease by 9.8 p.p. to the level of 76.6% at the end of 2020.
- At the end of December 2020, moratoria were granted on loans worth PLN 142.0 billion. As of the end of 2020, moratoria for the amount of PLN 127.8 billion expired, with PLN 14.2 billion remaining to be paid 69.4% of all loans with moratoria that expired in 2021 Q1, while another 20.7% of loans with moratoria will expire by the end of 2021 Q2. Banks revealed PLN 26.7 billion of economic loss due to the moratoria granted.
- The moratoria apply for the most part to industries most strongly affected by consequences of the COVID-19 pandemic (in particular wholesale and retail trade, real estate services, and industrial processing).
- As of the end of December 2020, banks granted PLN 18.5 billion of loans included in public guarantee schemes.
- In 2020, the equity situation of the banking sector remained stable. The value of own funds was at the end of 2020 equal to PLN 231.9 billion (+10.2% YoY). Also at end of 2020, the total cost ratio (TCR) for the entire banking sector was 20.7% (+1.7 p.p. YoY).
- The total amount of risk exposure in the banking sector rose by 1.5% YoY. The amount of exposure to credit risk decreased by 1.5% YoY. The amount of exposure to operating risk increased by 19.6% compared to the end of 2019 as a result of greater legal risk related to the foreign currency loans portfolio.

- At the end of 2020, all commercial banks were meeting the applicable short-term liquidity coverage ratio (LCR). In the commercial banks subsector, the average value of this ratio has for years exceeded 100%, reaching 193% at the end of 2020.
- In 2020, besides a regular increase in the level of liquid assets observed in recent years, strengthened additionally by an influx of funds granted to entrepreneurs as part of the anti-crisis shield, the liquid position of the banking sector was greatly affected by lowering the mandatory reserve rate from 3.5% to 0.5%, a move that resulted in an upsurge of available liquid assets.
- The net stable funding ratio (NFSR) in the commercial banks subsector has for years exceeded 100%. As of the end of 2020, the ratio reached 147%².
- Financing granted and received as part of transactions with capital affiliates has increased. In particular, the importance of off-balance sheet operations in the value of funds granted to other affiliates has greatly increased (by +35.5% YoY).
- In 2020, due to changes on financial markets caused by the COVID-19 pandemic, banks systematically lowered the interest rate on fixed-term deposits for both households (from the average market interest rate of 1.19% in January to 0.25% in December) and enterprises (from the average market interest rate of 0.95% in January to 0.01% in December). The highest rates were offered by branches of credit institutions. The number of offered deposits decreased systematically. In case of deposits for enterprises, three banks withdrew their offer entirely.
- The value of bank shares over one year and three years fell much more strongly than
 the value of companies from other industries the WIG Banki index in the above
 periods noted larger slumps than did other indexes traded on the WSE. In addition,
 the decreases were stronger compared to main foreign indexes, including foreign
 banking sector indexes.

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² The obligation to maintain the NFSR at the level of at least 100% entered into force in June 2021

1. Structure of the banking sector

At the end of 2020, 596 entities were active in the banking sector.

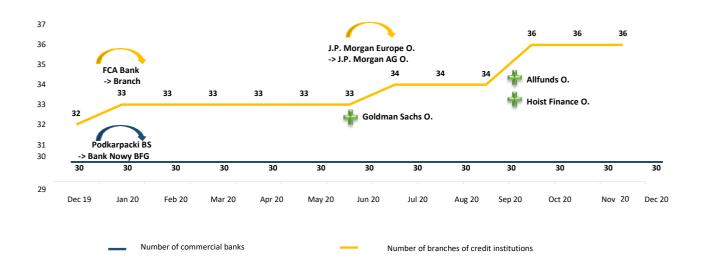
Table 1 Number of entities in the banking sector

Number of entities in the banking sector	Dec 20	Dec 19	change
Commercial banks	30	30	0
Branches of credit institutions	36	32	+4
Cooperative banks	530	538	-8
Total	596	600	-4

In the recent year, the banking sector structure did not undergo major changes. One should, however, mention a few transformations that took place in 2020:

- the mandatory restructuring of Podkarpacki Bank Spółdzielczy and transferring its separated portion to Bank Nowy BFG which acted as a bridge bank,
- transformation of FCA Bank into FCA Bank Oddział w Polsce (branch in Poland),
- start of activities of Goldman Sachs Oddział w Polsce (branch in Poland),
- start of activities of Allfunds Oddział w Polsce (branch in Poland),
- start of activities of Hoist Finance Oddział w Polsce (branch in Poland),
- transformation of J.P. Morgan Europe Oddział w Polsce (branch in Poland) into J.P. Morgan AG Oddział w Polsce (branch in Poland).

Chart 1 Changes in structure of the banking sector*

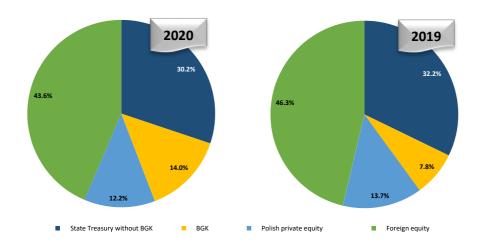


^{*}On 30 December 2020, the Bank Guarantee Fund made a decision to launch mandatory restructuring of Idea Bank SA, which was acquired by Bank Pekao SA on 3 January 2021

(https://www.bfg.pl/bfg-wszczal-przymusowa-restrukturyzacje-idea-bank-s-a-ktory-zostanie-przejety-przez-bank-pekao-s-a/).

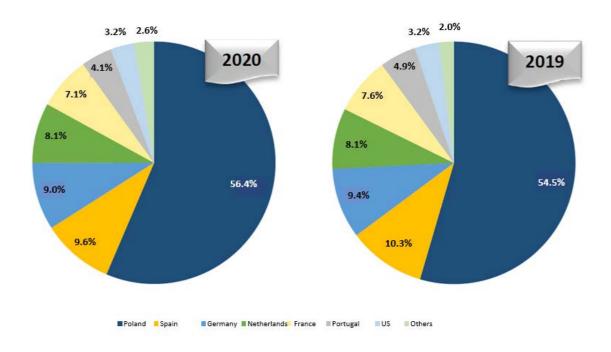
These changes did not greatly affect the distribution of equity origin.

Chart 2 Equity origin (share in assets – December 2020 and December 2019)



Among foreign investors Spanish, German, Dutch and French equity has for years been of prime importance. The distribution of investors among these countries does not undergo major changes. In 2020, minor decreases were noted in the share of investors from Spain (-0.7 p.p.), Portugal (-0.7 p.p.) and France (-0.6 p.p.), while the share of banks from countries of minor importance as far as equity origin is concerned rose (by +0.6 p.p.)

Chart 3 Country of origin of equity (share in assets – December 2020 and December 2019)



2020 was another year when the banking network was observed to shrink and employment was reduced. In previous years, this trend was driven mostly by the development of electronic and mobile distribution channels and the desire to improve profitability through

cost reduction. In 2020, these factors were additionally compounded by activities meant to adjust banks to the pandemic reality.

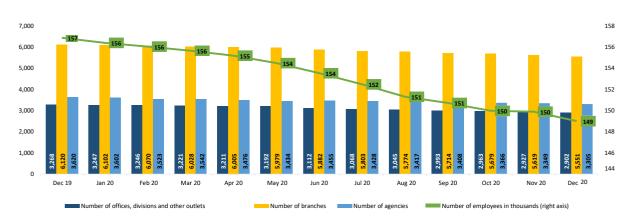


Chart 4 Network of banks and employment in the banking sector

2. Concentration of the banking sector

In recent years, the concentration of assets rose slightly, however the Polish banking sector remains competitive, as evidenced by the Herfindahl-Hirschmann Index (HHI) value which reached 764.6. The share of deposits of the non-financial sector in the largest five banks has for years remained at the stable level of 55–59%.

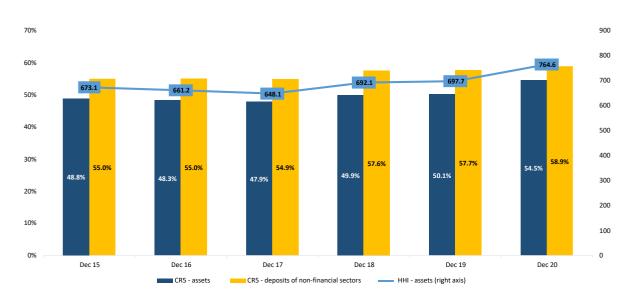


Chart 5 Concentration indexes

The Herfindahl-Hirschman Index (HHI), the sum of squares of bank shares in assets of the banking sector, is a measure of market concentration. The index takes into account not only the number of entities, but also their relative size.

CR5 is an index equal to the share in the banking sector achieved by 5 banks with the highest carrying amount or the largest amount of deposits of the non-financial sector.

3. Results of the banking sector

Table 2 Selected profit and loss statement items (in millions of PLN)

ltem	Dec 15	Dec 16	Dec 17	Dec 18	Dec 19	Dec 20	YoY change	2020/2019
			(n	nillions of PLN)			(millions of PLN)	(%)
Total operating revenue	57,115.2	61,771.8	64,013.9	64,565.1	70,627.0	61,972.6	-8,654.5	-12.3%
net interest income	35,377.1	38,024.1	42,618.9	44,820.3	49,115.7	47,131.8	-1,983.9	-4.0%
net fees and commission income	13,316.7	12,591.8	13,764.3	12,306.1	13,363.4	14,851.5	1,488.2	11.1%
dividend income	1,362.7	1,308.3	1,168.5	1,505.7	2,129.6	916.3	-1,213.3	-57.0%
other	7,058.6	9,847.7	6,462.2	5,933.0	6,018.4	-927.1	-6,945.4	-115.4%
Operating expenses and depreciation	33,519.4	34,575.4	36,010.2	36,365.9	39,247.4	39,272.0	24.6	0.1%
staff expenses	15,207.6	15,727.2	16,643.2	16,991.0	17,748.4	17,446.1	-302.3	-1.7%
other administrative expenses	15,457.5	15,935.5	16,418.2	16,469.8	17,069.9	17,231.2	161.3	0.9%
depreciation	2,854.3	2,912.6	2,948.8	2,905.1	4,429.1	4,594.7	165.6	3.7%
Provisions	1,046.8	1,133.5	728.4	628.9	2,405.5	4,284.6	1,879.0	78.1%
Impairment write-offs	8,423.4	7,977.9	8,860.3	9,430.5	9,566.1	13,325.4	3,759.3	39.3%
NET FINANCIAL RESULT	11,189.2	13,897.7	13,686.6	13,046.2	13,806.2	931.5	-12,874.7	-93.3%
commercial banks	12,056.0	12,982.6	12,652.3	12,215.5	13,242.5	169.1	-13,073.4	-98.7%
cooperative banks	-1,184.0	580.4	629.0	638.0	588.1	490.8	-97.4	-16.6%
branches of credit institutions	317.2	334.6	405.3	192.8	-24.4	271.7	296.1	-

The net financial result achieved in 2020 was PLN 931.5 million, PLN 12,874.7 million (or 93.3%) lower than in 2019. Broken down into subsectors, an increase in results was noted by branches of credit institutions (+PLN 296.1 million). On the other hand, both commercial and cooperative banks saw their results dwindle compared to the previous year, respectively by -98.7% or PLN 13,073.4 million for commercial banks and -16.6% or PLN 97.4 million for cooperative banks.

The lower financial result of 2020 was caused mainly by lower total operating revenue (-12.3% YoY or PLN 8,654.5 million), including the result on other items (-115.4% YoY or PLN 6,945.4 million) and dividend income (-57.0% or PLN 1,213.3 million) where the contraction's pace was the strongest.

On the cost side, there was a considerable increase in provisions (+78.1% YoY or PLN 1,879 million) because of higher levels of provisions established, among others, for:

- risk related to consequences of the COVID-19 pandemic;
- RRE FX loans (as a result of increased number of court cases and value of litigation following CJEU decision 260/18 of 3 October 2019);
- refunding part of the costs related to early consumer loans repayment (CJEU decision 383/18 of 11 September 2019).

The level of impairment write-offs also increased greatly (+39.3% YoY or PLN 3,759.3 million).

Chart 6 Net financial result of the banking sector (in millions of PLN)

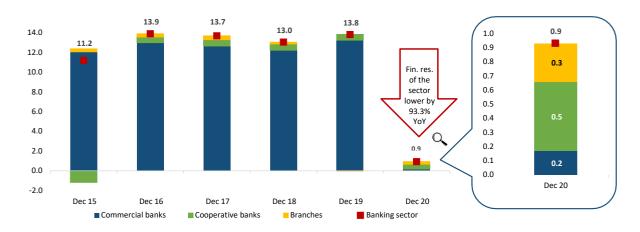


Chart 7 Banking sector – financial result at end of period (accumulated, in millions of PLN)

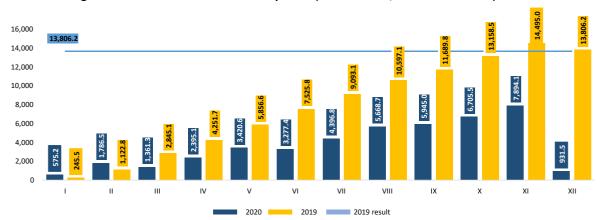
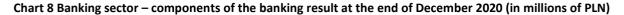
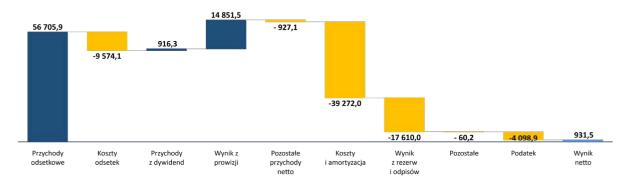


Table 3 Selected administrative cost items

	Dec 15	Dec 16	Dec 17	Dec 18	Dec 19	Dec 20	YoY c	hange
Selected cost items	(millions of PLN)						(millions of PLN)	(%)
Staff expenses	15,207.6	15,727.2	16,643.2	16,991.0	17,748.4	17,446.1	-302.3	-1.7%
Bank Guarantee Fund	4,243.3	2,396.7	2,102.9	2,116.1	2,760.1	3,221.6	461.5	16.7%
Banking tax	-	3,198.0	3,630.7	3,628.5	4,056.8	4,496.0	439.2	10.8%
Other administrative expenses	2,837.9	5,462.1	5,942.6	2,241.4	2,613.8	2,391.5	-222.3	-8.5%
IT costs	1,704.7	1,782.5	1,981.4	1,977.9	2,274.0	2,367.3	93.3	4.1%
External services – other	2,008.6	1,903.2	1,952.4	1,962.2	1,994.2	1,903.7	-90.5	-4.5%
Marketing	1,173.0	1,032.2	1,058.2	1,249.7	1,289.9	905.1	-384.7	-29.8%
Rents	2,758.4	2,639.6	2,625.6	2,459.8	1,259.9	1,238.1	-21.8	-1.7%
External services – under the Banking Law	731.6	719.4	755.1	834.2	821.2	707.9	-113.2	-13.8%

The largest share in administrative costs of banks was taken by staff expenses which in 2020 decreased by 1.7% (i.e. PLN 302.3 million) The strongest growth pace was noted in case of BGF fees (increase by 16.7% YoY or PLN 461.5 million). An increase also took place in case of the banking tax, by PLN 439.2 million (+10.8% YoY. Lower costs were, however, sustained in the marketing category, decreasing by 29.8%, or PLN 384.7 million.

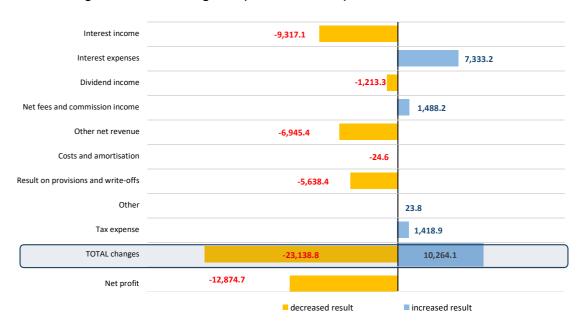




Zwiększ Zmniejsz Suma

Przychody odsetkowe	Interest income
Koszty odsetek	Interest expenses
Przychody z dywidend	Dividend income
Wynik z prowizji	Net fees and commission income
Pozostałe przychody netto	Other net revenue
Koszty i amortyzacja	Costs and amortisation
Wynik z rezerw i odpisów	Result on provisions and write-offs
Pozostałe	Other
Podatek	Tax expense
Wynik netto	Net result
Zwiększ	Increase
Zmniejsz	Decrease
Suma	Total

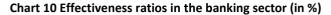
Chart 9 Banking sector - result change YoY (in millions of PLN)

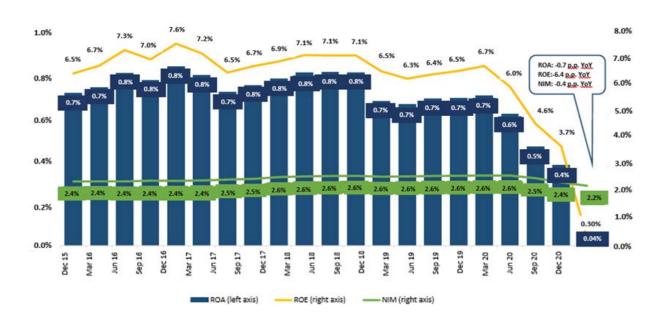


4. Profitability of the banking sector

Effectiveness of the sector, in terms of return on equity (ROE), decreased by 6.4 p.p. compared to the end of 2019, reaching the level of 0.30% at the end of December 2020. The

falling level of profitability in the banking sector in 2020 resulted, among others, from the three cuts of the reference rate made by the Monetary Policy Council (MPC)³, an effect already apparent in 2020 Q2 (total decrease: -1.4 p.p. QoQ) and from the burden on the net result due to provisions established for the COVID-19 pandemic, as well as the legal risk related to foreign currency mortgage-backed loans and the refunding of part of commissions collected on early consumer loan repayment.





ROA and ROE are the ratio between the sum of financial results from 12 success ive months and, respectively, average assets and average equity in the same period.

Return on equity (ROE) refers to the aggregated group of commercial and cooperative banks (without branches of credit institutions) and return on assets (ROA) to the entire banking sector.

Net interest margin (NIM) is the ratio between the interest result from 12 successive months to average interest assets in the same period.

The highest decrease of effectiveness ratios occurred in commercial banks, whose average ROE fell by 6.79 p.p. YoY, while in the cooperative banks subsector the ratio noted a 0.95 p.p. YoY decrease. A similar relation obtained for ROA (-0.75 p.p. and -0.09 p.p. respectively)

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³ The MPC lowered the interest rates on 17 March (by -0.50 p.p.); 8 April (by -0.50 p.p.) and 28 May (by -0.40 p.p.).

ROE ROA 0.32% Coonerative hank 0.09 pp YoY 0.01% Commercial banks -6.79 pp YoY Commercial banks 0.75 pp YoY 0.30% 0.04% Banking secto Banking sector 0.66 pp Yo -6.44 pp YoY 0.00% 2.00% 4.00% 6.00% 0.00% 0.20% 1.00% 8.00% 0.40% 0.60% 0.80%

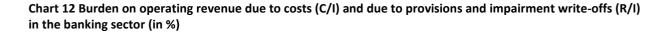
Chart 11 Level of effectiveness in each sector (in %)

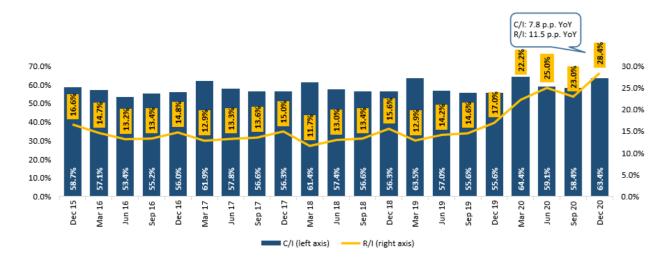
■ Dec 20

Dec 19

Burden on operating revenue due to costs rose to 63.4% (+7.8 p.p. YoY) in 2020 compared to 2019. The burden on income due to provisons and impairment write-offs also increased considerably (+11.5 p.p. YoY, reaching 28.4% at the end of 2020), which was caused by an increase of provisions established against the COVID-19 pandemic risk and, for some banks, legal risk related to RRE (FX) portfolios.

■ Dec 20





C/I is the ratio between costs (operational costs + depreciation of fixed assets and intangible assets/goodwill) and income (total net operating income), using a 12-month rolling average.

R/I is the ratio between impairment write-offs and provisions (provisions + value impairment or impairment reversal) and income (total net operating income), using a 12-month rolling average.

The burden on operating income due to operating costs increased uniformly over all subsectors. In the cooperative banks subsector, C/I increased by 8.1 p.p. YoY, compared to 8.0 p.p. YoYfor commercial banks. On the other hand, the considerable increase of burden on income due to provisions resulted from activities of commercial banks, whose R/I ratio rose by 14.2 p.p. YoY, while for cooperative banks it decreased by 6.6 p.p. YoY.

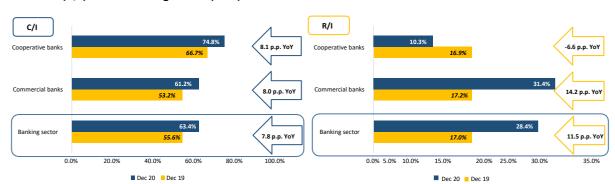


Chart 13 Level of burden on operating revenue due to costs (C/I) and due to provisions and impairment write-offs (R/I) in the banking sector (in %)

5. Balance sheet

In 2020, the balance sheet structure underwent a considerable change, mainly because of the spread of the COVID-19 pandemic. Due to imposed restrictions and shut-downs in a number of industries, economic activity decelerated, resulting in, among others, less credit activities of banks, which caused the share of this item in total assets to fall by 10 p.p. YoY.

Government aid to industries shut down due to opposing the pandemic indirectly affected, among others, the increase of deposits of non-financial enterprises by PLN 64.0 billion (+19.8% YoY) and less credit demand by enterprises, thereby limiting the volume of the entire portfolio of loans for non-financial enterprises by about 4.8% per year (PLN -18.9 billion).

In case of households, the volume of consumer loans decreased (by PLN -0.9 billion or -0.5% YoY) and deposits increased considerably (PLN +98.7 billion or +10.7% YoY). Due to, among others, lower interest on deposits and term deposits as well as loans, higher inflation and negative interest rates, a considerable increase of the volume of loans granted to households to purchase housing real estate was observed (PLN +33.1 billion or +10.2% YoY).

Another factor that affected the changes in balance sheet structure were government aid funds and quantitative easing implemented by Narodowy Bank Polski, which caused an increase of the share of debt securities in assets of banks. At the same time, CJEU decisions in cases C-260/18 of 3 October 2019 (dubbed "large CJEU") concerning RRE FX and decision C-383/18 of 19 September 2019 (dubbed "small CJEU") concerning the refunding of commissions on overpayment or early repayment of consumer loans considerably increased the level of provisions established by banks.

At the end of 2020, the aggregate carrying amount was PLN 2,350.1 billion, growing during the year by PLN 349.9 billion (+17.5%).

Table 4 Banking sector balance

	Dec 18	Dec 19	Dec 20	YoY change 2	2020 / 2019	
		(billions of PLN)	(billions of PLN)	(%)		
Sector assets	1,893.7	2,000.1	2,350.1	349.9	17.5%	
commercial banks	1,689.6	1,780.2	2,106.0	325.9	18.3%	
cooperative banks	138.3	150.7	167.2	16.5	11.0%	
branches of foreign banks	65.8	69.3	76.8	7.5	10.9%	

Chart 14 Balance sheet product structure – banking sector; December 2020 (in billions of PLN)

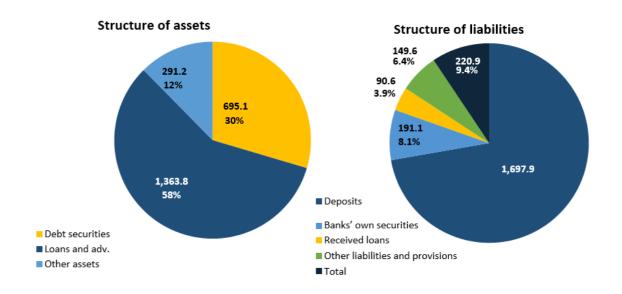


Table 5 Banking sector balance sheet structure - ASSETS

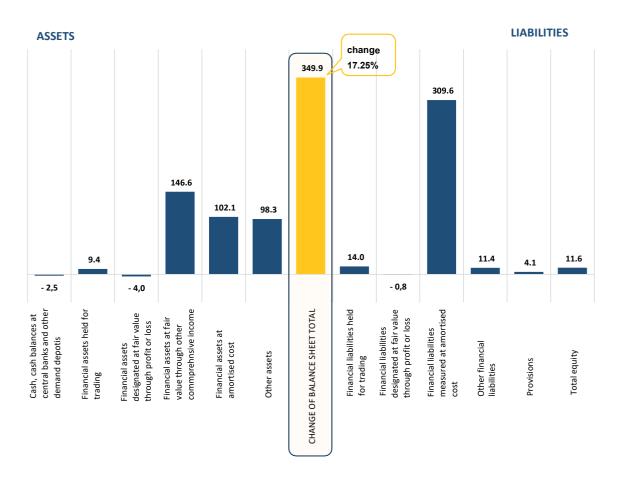
	Dec 18 Dec 19 Dec 20		YoY change	2020 / 2019	
		(billions of PLN	1)	(billions of PLN)	(%)
Cash. cash balances at central bank and other demand deposits	131.9	115.2	112.6	-2.5	-2.2%
Debt securities	414.8	457.8	695.1	237.3	51.8%
Equity instruments	5.5	6.0	6.4	0.4	6.4%
Loans and advances at fair value	29.3	48.8	55.8	7.0	14.4%
Loans and advances at amortised cost	1,237.6	1,291.9	1,288.6	-3.3	-0.3%
Other assets	74.5	80.5	191.6	111.1	138.0%

The "loans and advances" item listed in the table includes receivables from all customer segments, including banks, except for deposits in banks payable on demand which are included in the "Cash, cash balances at central banks and other demand deposits" item of the table.

Table 6 Banking sector balance sheet structure – LIABILITIES

	Dec 18	Dec 18 Dec 19 Dec 20		YoY change 2020 / 2019		
		(billions of PLN)			(%)	
Deposits	1,373.3	1,487.4	1,697.9	210.5	14.2%	
Own debt securities issued	87.8	92.3	191.1	98.8	107.1%	
Financial liabilities	99.7	87.3	90.6	3.3	3.7%	
Other liabilities and provisions	128.9	123.8	149.6	25.8	20.8%	
Total equity	204.0	209.3	220.9	11.6	5.5%	

Chart 15 Portfolio structure of the banking sector balance sheet – change in 2020



Change of the carrying amount was influenced mostly by financial assets at fair value (mainly securities) and receivables and liabilities at amoritised cost which include mainly loans and advances as well as deposits.

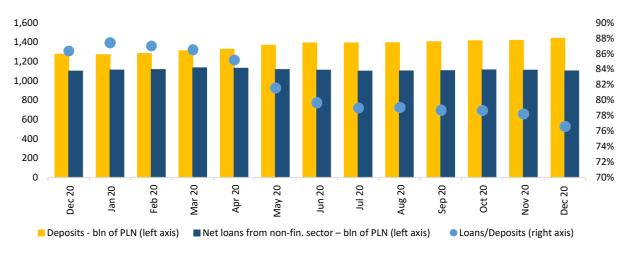
Bank assets are dominated by the "Loans and advances" category whose share in assets at the end of 2020 was 58%, less by -10 p.p. compared to the end of 2019 due to smaller growth of credit activities compared to the previous increase in 2019 and greater share of, among others, debt securities.

Table 7 Structure of loans and advances by sector

	Dec 18	Dec 19	Dec 20	YoY change 2	2020 / 2019
	(k	pillions of PLN)	(billions of PLN)	(%)	
Financial sector	165.6	177.4	173.9	-3.5	-2.0%
General governments	97.2	104.3	106.7	2.4	2.3%
Non-financial sector	1,035.8	1,083.3	1,083.2	-0.1	0.0%

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

Chart 16 Deposits and receivables of the non-financial sector (in billions of PLN)



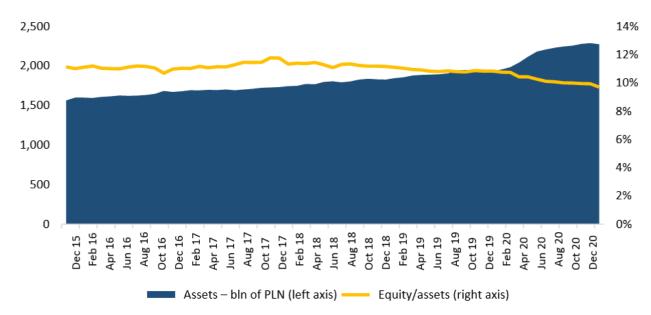
Loans and advances at carrying amount, excluding debt instruments.

The second largest contribution to assets comes from debt securities which constitute 30% of the sector's carrying amount, their share in assets growing by 7 p.p. during the year.

Table 8 Structure of security portfolio – at carrying amount

	Dec 18 Dec 19 Dec 2		Dec 20	YoY change 2020 / 20	
		(billions of PLN)		(billions of PLN)	(%)
Financial sector, including:	72.9	79.7	232.8	153.1	192.0%
securities issued by central banks	48.7	54.8	121.2	66.4	121.1%
Non-financial sector	22.8	20.0	16.8	-3.1	-15.7%
General governments, including:	319.1	358.1	445.5	87.4	24.4%
issued by the central government	297.6	334.0	420.1	86.1	25.8%
issued by local governments	21.5	24.1	25.4	1.3	5.2%

Chart 17 Equity vs total assets, commercial and cooperative banks



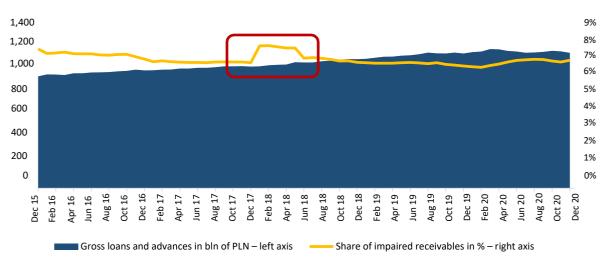
5.1. Receivables from the non-financial sector

At the end of 2020, the carrying amount of loans and advances (from the B portfolio⁴) granted to entities from the non-financial sector reached the value of PLN 1,142.5 billion, growing during the year 2020 by PLN 5.7 billion, or 0.5%. The increase applied only to the household loan portfolios (PLN +21.6 billion or +2.9% YoY). In case of loans to non-financial enterprises, an overall loss of PLN 16.2 billion (-4.2% YoY) was observed.

Table 9 Receivables from the non-financial sector - B portfolio (in billions of PLN)

	Dec 18	Dec 19	Dec 20	YoY change	2020 / 2019
		(billions of PLN	(billions of PLN)	(%)	
Total non-financial sector	1,088.2	1,136.8	1,142.5	5.7	0.5%
Enterprises	373.1	383.9	367.6	-16.2	-4.2%
Households	707.9	745.3	766.8	21.6	2.9%

Chart 18 Quality of receivables from the non-financial sector - B portfolio



The anomalies shown in the red frame on the chart are the result of changes (concerning the classification of receivables as stage 3/impaired) to mandatory reporting of banks to the NBP (FINREP) and bank adjustments related to the obligation to add interest on receivables classified as stage 3 to the gross carrying amount. After about six months, the major part of this interest was charged from the balance sheet to provisions.

The quality of receivables from the non-financial sector, measured by the ratio of the carrying amount of loans and advances classified as stage 3/impaired to the total gross carrying amount of loans and advances has, after a period of gradual improvement, deteriorated in 2020. Due to the pandemic-related shielding activities which the government engaged into, in 2021 the quality of receivables may fluctuate.

Financial Supervision Authority

⁴ Receivables measured at amortised cost and at fair value through other comprehensive income, excluding debt instruments

Table 10 Quality of receivables from the financial sector (share of receivables classified as stage 3 /impaired) – B portfolio

	Dec 18	Dec 19 Dec 20		YoY ch	nange
	Dec 19	Dec 19	Dec 20	2019 - 2018	2020 - 2019
	(%)			(pp)	
Total non-financial sector	6.83%	6.63%	6.95%	-0.20 pp	0.31 pp
Enterprises	8.73%	8.58%	9.02%	-0.15 pp	0.45 pp
Households	5.88%	5.68%	6.01%	-0.19 pp	0.33 pp

Table 11 Coverage of stage 3 receivables with impairment write-offs - non-financial sector - B portfolio

	Dec 18	Dec 19	Dec 20	YoY ch 2019 - 2018	nange 2020 - 2019
	(%)			(pp)	
Total non-financial sector	57.43%	58.31%	59.39%	0.87 pp	1.09 pp
Enterprises	49.62%	50.25%	52.69%	0.63 pp	2.44 pp
Households	63.62%	64.58%	64.24%	0.96 pp	-0.35 pp

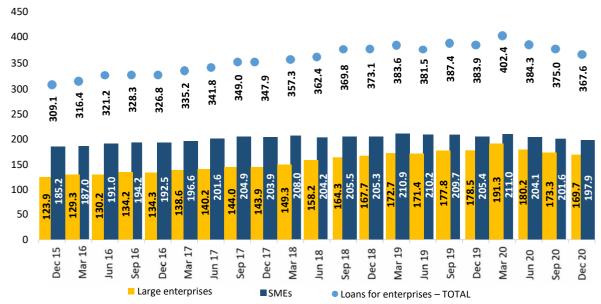
5.1.1. Enterprises

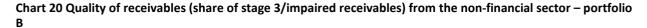
2020 brought a considerable decrease in crediting enterprises, with the volume of loans for SMEs falling back to early 2017 levels.

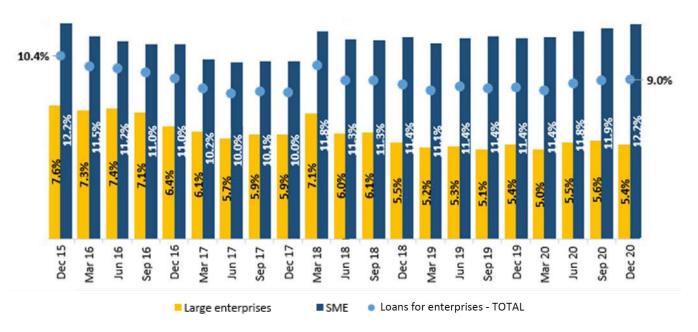
Table 12 Loans and advances for enterprises from the non-financial sector - B portfolio

	Dec 18 Dec 19 Dec 20		YoY change 2020 / 2019		
	(billions of PLN)			(billions of PLN)	(%)
Total enterprises	373.1	383.9	367.6	-16.2	-4.2%
Large enterprises	167.7	178.5	169.7	-8.7	-4.9%
SMEs	205.3	205.4	197.9	-7.5	-3.7%

Chart 19 Receivables from enterprises in the non-financial sector – B portfolio (in billions of PLN)







It should be remembered that the quality of receivables may be underestimated by banks due to the payment suspension schemes they use.

Chart 21 Degree of coverage of stage 3/impaired receivables with impairment write-offs – non-financial sector – portfolio B

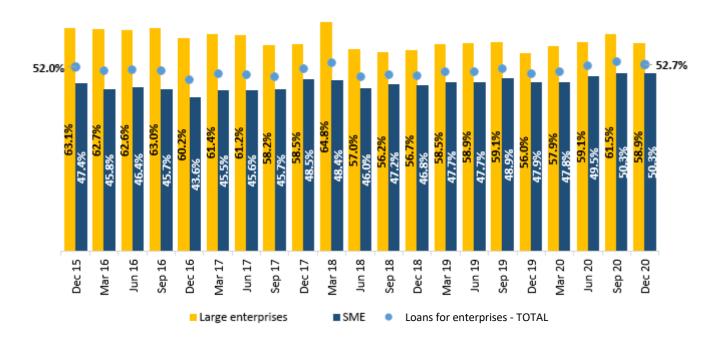


Chart 22 Gross receivables from households – B portfolio (billions of PLN); December 2020

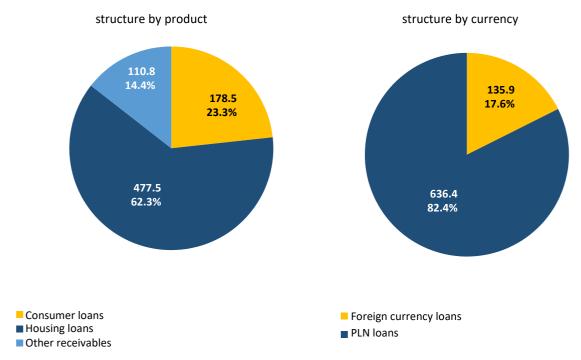


Table 13 Gross receivables from households – B portfolio

	Dec 18 Dec 1 9 Dec 20		YoY change 2020 / 2019		
		(billions of PLN)	(billions of PLN)	(%)
Households, including:	707.9	745.3	766.8	21.6	2.9%
Sole traders	77.5	79.3	74.4	-4.9	-6.2%
Private individuals	598.9	633.9	661.2	27.3	4.3%
Individual farmers	31.5	32.1	31.3	-0.8	-2.4%
Housing loans in PLN	289.2	324.8	357.9	33.1	10.2%
Housing loans in CHF	104.8	98.1	91.4	-6.7	-6.8%
Housing loans in other currencies	27.4	26.0	28.2	2.1	8.2%
Consumer loans	171.5	179.4	178.5	-0.9	-0.5%
Other	115.0	117.0	110.8	-6.2	-5.3%

The "Other" category includes mostly loans for sole traders and individual farmers. Changes of volumes in the "Housing loans in other currencies" category are mostly the result of changing currency exchange rates and the activities of foreign branches of Polish banks.

The quality of receivables from households is in practice affected by the quality of loans granted to private individuals. The share of such loans in the total gross value of household loans was 86.3% at the end of December 2020. In turn, good quality of the private individuals loan portfolio depends on housing loans whose share in the portfolio of receivables for this customer segment was 72.4% at the end of December 2020 (while consumer loans accounted for 26.8% of all receivables).

Chart 23 Quality of receivables from households (share of stage 3/impaired receivables); banking sector – by customer type; B portfolio

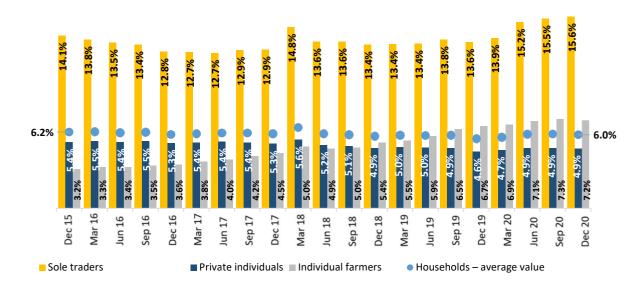


Table 14 Quality of household receivables (share of stage 3) – by customer type; B portfolio

	Dec 18	Dec 19	Dec 20	YoY change	
	DEC 10	Dec 19	Dec 20	2019 - 2018	2020 - 2019
	(%)			(pp)	
Households, including:	5.88%	5.68%	6.01%	-0.19 pp	0.33 pp
Sole traders	13.38%	13.56%	15.63%	0.18 pp	2.07 pp
Private individuals	4.93%	4.65%	4.87%	-0.29 pp	0.22 pp
Individual farmers	5.37%	6.70%	7.18%	1.33 pp	0.48 pp

Table 15 Coverage of household receivables (stage 3) with impairment write-offs – by customer type – B portfolio

	Dec 10	D 40	2 22	YoY change		
	Dec 18	Dec 19	Dec 20	2019 - 2018	2020 - 2019	
	(%)			(pp)		
Households, including:	63.62%	64.58%	64.24%	0.96 pp	-0.35 pp	
Sole traders	64.68%	67.62%	68.55%	2.94 pp	0.92 pp	
Private individuals	64.25%	64.83%	64.02%	0.59 pp	-0.81 pp	
Individual farmers	46.27%	45.97%	45.03%	-0.30 pp	-0.94 pp	

Chart 24 Quality of household receivables (share of stage 3/impaired receivables); banking sector – by product; B portfolio

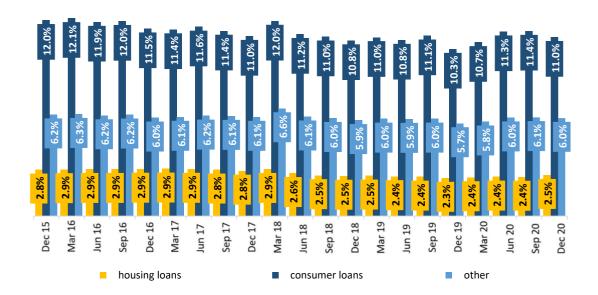


Table 16 Quality of household receivables (share of stage 3) – by product type; B portfolio

	Dec 18	Dec 19	Dec 20	YoY ch 2019 - 2018	nange 2020 - 2019
	(%)			(pp)	
Housing loans	2.46%	2.33%	2.51%	-0.13 pp	0.18 pp
Consumer loans	10.77%	10.25%	10.98%	-0.52 pp	0.73 pp
Other	11.10%	11.56%	13.10%	0.47 pp	1.53 pp

Table 17 Coverage of household receivables (stage 3) with impairment write-offs – by product type; B portfolio

	D 10		D 30	YoY change	
	Dec 18		2019 - 2018	2020 - 2019	
	(%)			(pp)	
Housing loans	54.45%	56.20%	53.97%	1.76 pp	-2.23 pp
Consumer loans	69.57%	69.68%	70.13%	0.11 pp	0.45 pp
Other	62.48%	64.13%	64.74%	1.65 pp	0.61 pp

Besides the COVID-19 pandemic, another factor that affected the financial situation of banks in 2020 was the almost double increase in court cases related to the RRE (FX) portfolio as a result of CJEU decision in case C-260/18 of 3 October 2019 which resulted in the need to establish provisions burdening the financial result of banks.

Further developments in legal risk related to the RRE (FX) portfolio will have major consequences for the entire Polish banking sector.

5.1.2.1. Housing loans for households

The information found in this subsection is derived from a non-reported survey of housing loans for households. The survey covered 28 different banks.

The threshold used to select the sample was having a portfolio of housing loans for households worth over PLN 100 million (as of the end of November 2020).

Size and structure of the portfolio

The gross carrying amount of the housing loans for households' portfolio was at the end 2020 equal to 462.7 billion and the number of loans to 2.4 million. Compared to the end of 2019, both values noted an increase: by 7.0% from 432.2 billion, and by 3.0% from 2.3 million respectively. PLN loans contributed 74.2% to the carrying amount of the housing loans while CHF loans added another 20.9%.

Chart 25 Structure of the household loans portfolio by loan currency at the end of 2020 (carrying amount in billions of PLN, share according to carrying amount)

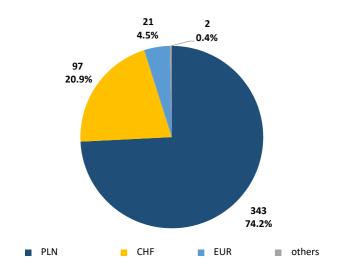
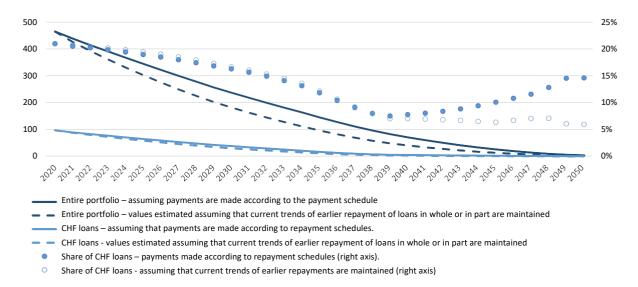


Chart 26 shows the distribution over time of payments of the entire current housing loans portfolio and its CHF segment in two scenarios – assuming payments are made according to the repayment schedule in effect at the end of 2020 and that current trends of earlier repayment of loans in whole or in part are maintained. The chart does not include loans granted or planned to be granted by banks after 2020.

Chart 26 Evolution (course of repayment) of the housing loans portfolio current as of the end of 2020 and its CHF segment according to gross carrying amount* (in billions of PLN); share of CHF loans in the housing loans portfolio, according to gross carrying amount (in %)

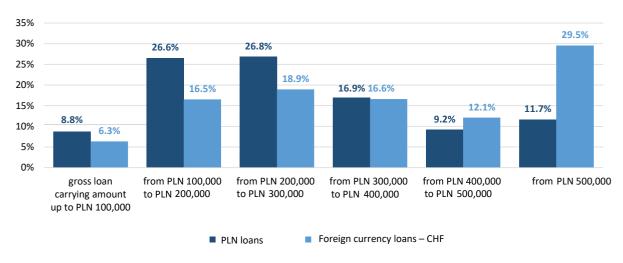


^{*} assuming that interest rates and currency exchange rates remain unchanged compared to the end of 2020.

The share of CHF loans in the housing loans portfolio is greater after 2039, as these loans were granted for longer periods, on average, than PLN loans.

The average carrying amount was at the end of 2020 equal to PLN 234.3 thousand for CHF loans and PLN 185.0 thousand for PLN loans. Among CHF loans, those with gross carrying amount above PLN 500 thousand were observed to have a large share. These loans accounted for 29.5% of the portfolio of all housing CHF loans (compared to 11.7% for PLN loans), and the average gross carrying amount in this segment was PLN 772.7 (PLN 690.9 thousand for PLN loans).

Chart 27 Distribution of PLN and CHF housing loans compared to gross carrying amount of loans in bank balance sheets at the end of 2020. The distribution is broken down by each segment of loans in, respectively, all PLN and CHF housing loans (shares according to gross carrying amount)



Loan-to-Value (LTV)

Loans with LTV less than 80% account for 79.2% of the housing loans portfolio, 85.9% of the PLN housing loans portfolio and 60.0% of the foreign currency housing loans portfolio (shares according to gross carrying amount). 23.5% of foreign currency housing loans are loans whose LTV exceeds 100%. For PLN loans, this share is merely PLN 1.8%

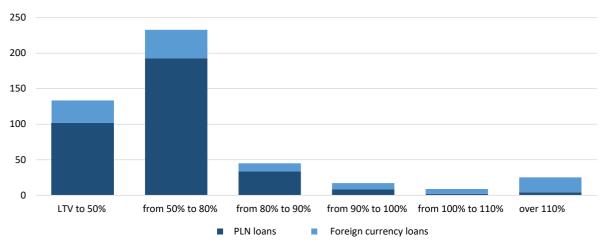


Chart 28 Distribution of PLN and CHF housing loans broken down by LTV level; distribution by gross carrying amount at the end of 2020 (in billions of PLN)

The average LTV for housing loans in the banking sector, measured using the gross carrying amount of these loans in each bank, was equal to 65.0% at the end of 2020.

DSTI

DSTI (Debt-Service-to-Income) is the ratio between the monthly value of all repaid loan instalments and the monthly net income of households and measures the portion of income which is assigned each month for debt repayment (not including credit card, credit facility or current overdraft debts). DSTI takes into account not only expenses related to handling all housing loans, but also all other credit burdens.

The median value of DSTI distribution fluctuated at the end of 2020 between 20% and 30%

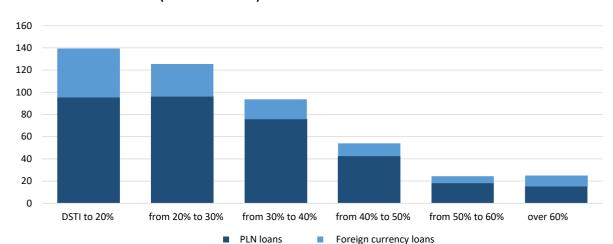


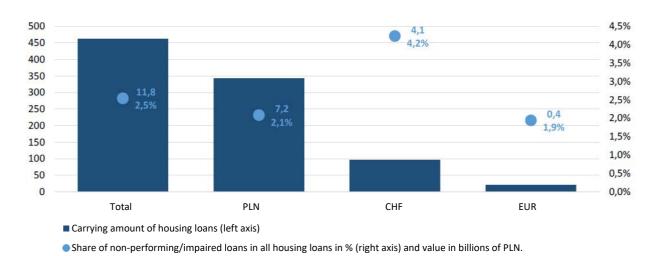
Chart 29 Distribution of PLN and foreign currency housing loans compared to DSTI level by gross carrying amount at the end of 2020 (in billions of PLN)

The average DSTI value in the banking sector, measured by the gross carrying amount of housing loans in each bank, is equal to 29.0%. The average DSTI values for customers with PLN loans were similar to DSTI values for customers with currency loans.

Quality of housing loans

The value of non-performing/impaired loans was PLN 11.8 billion, 2.5% of the entire value of housing loans at the end of 2020. At the end of 2019, the value of non-performing loans was lower, standing at PLN 10.1 billion, 2.3% of the portfolio value.





Loan quality deteriorates linearly as the portfolio ages, however a sudden increase in the share of non-performing/impaired loans is apparent for housing loans granted in 2008. Loans granted in 2008 and now found in bank balance sheets are characterised by relatively low quality compared to other years.

Chart 31 Housing loans in PLN by year of disbursement – gross carrying amount (in billions of PLN) and share of non-performing/impaired loans in the housing loans portfolio, according to gross carrying amount (in %)

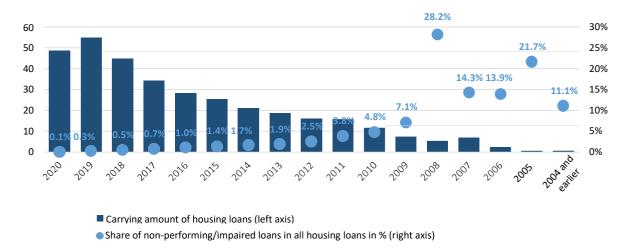
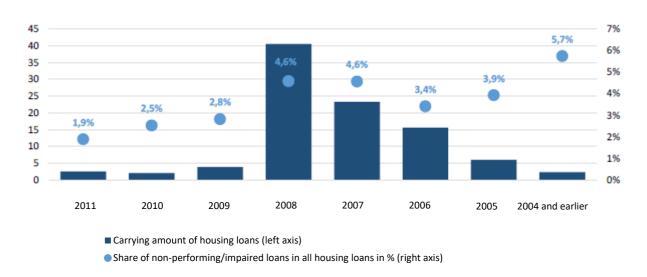


Chart 32 CHF Housing loans broken down by year of disbursement (limited to the year 2011 because scale in subsequent years is minor) – carrying amount (in billions of PLN) and share of non-performing/impaired loans in the housing loans portfolio, according to gross carrying amount (in %)



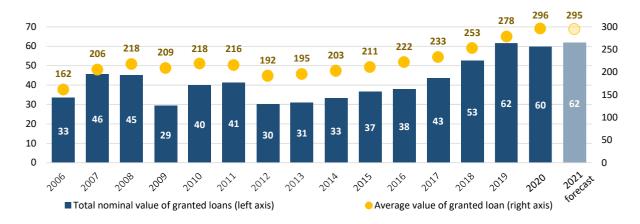
Credit currency conversion

At the end of 2020, the number of loans converted from foreign currencies to PLN was 8.2 thousand (7.5 thousand at the end of 2019). The gross carrying amount of these loans at the end of 2020 was PLN 2.9 billion (PLN 2.8 billion at the end of 2019). 75.7% of loans converted from foreign currencies to PLN (share according to gross carrying amount) are loans classified as non-performing / with recognised impairment (as of the conversion date).

Lending activity in 2020

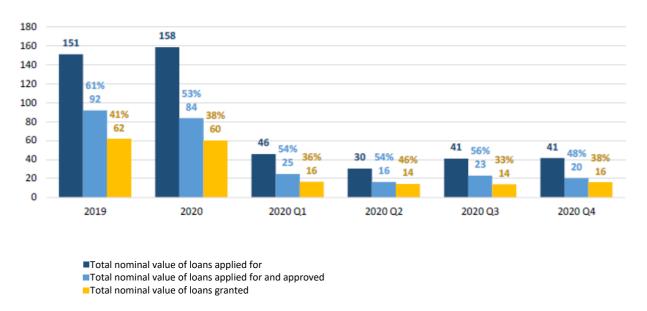
In 2020, banks granted 202.4 thousand housing loans (221.5 thousand in 2019) with the total nominal value of PLN 59.9 billion (PLN 61.6 billion in 2019). The average value of a granted housing loan was PLN 295.8 thousand (278.2 thousand in 2019).

Chart 33 Total nominal value of granted loans (billions of PLN) and average value of granted loan (thousands of PLN) in 2006–2020 as well as a projection for 2021.



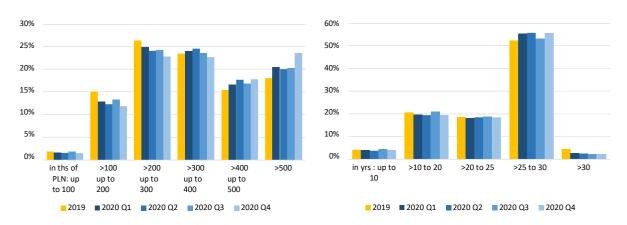
The total value of loans applied for in 2020 was PLN 7.2 billion higher than in 2019, but the value of both approved and granted loans was in 2020 lower than in the previous year. In all quarters of 2020, the percentage of loans applied for and approved was lower than in 2019, which may point to a more stringent housing loans granting policy in 2020.

Chart 34 Housing loans – supply and demand, nominal value (billions of PLN), percentage share in value of loans applied for



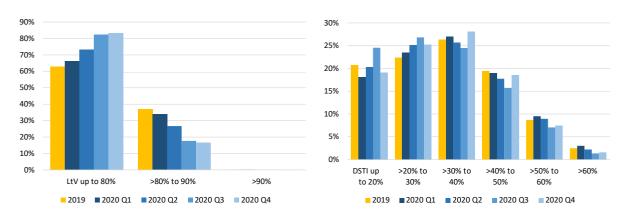
Among loans granted in 2020, each quarter was dominated by loans whose nominal value fell between PLN 200 and 400 thousand. In the fourth quarter, the share of loans with nominal value over PLN 500 thousand increased considerably. The distribution of granted loans broken down by original loan duration was constant over all quarters of 2020.

Chart 35 Distribution of total value resulting from loan agreements entered into in 2019 and 2020 (in %) according to the nominal value of loan granted (left chart) and original loan duration (right chart)



Subsequent quarters of 2020 saw an increased share of loans with LTV below 80% in the total nominal value of granted loans. In the fourth quarter, the share of such loans reached 83% (63% for loans granted in 2019 and 71% for loans granted in 2018). In the second and third quarters, the share of loans granted to persons with lower debt servicing costs increased as well. In the last quarter, however, the trend was reversed.

Chart 36 Distribution of total value of loans granted in 2019 and 2020 (in %), according to LTV (left chart) and DSTI (right chart)



Loans whose repayment date falls during the borrower's retirement age accounted for 46.3% of the carrying amount of loans granted in 2020. For the entire loan portfolio, the share was 42.6%. The gross carrying amount of loans whose repayment date falls during the borrower's retirement age was 197.0 billion at the end of 2020.

In the surveyed group of banks, 36.8% of housing loans granted in 2020 (share according to gross carrying amount) were granted with the assumption that maintenance costs are equal to or lower than the subsistence level. 62.7% of loans were granted with the assumption that maintenance costs do not exceed one and a half times of the subsistence level at the date of granting the loan.

For the surveyed banks, the average margin weighted with nominal value of loans granted with 2020 was 2.2% and the average commission was 0.4%.

The average margin value in the group of surveyed banks rose from January to December 2020 by 0.16 p.p.

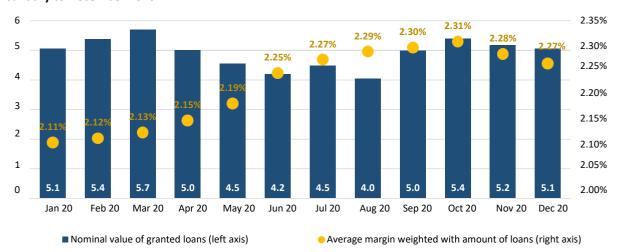


Chart 37 Nominal value of granted loans (in billions of PLN) and average margin for loans granted from January to December 2020.

Loans with fixed interest rate account for 1.8% of the gross carrying amount of all housing loans. At the end of 2020, their gross carrying amount was equal to PLN 8.4 billion, of which loans granted in 2020 were worth PLN 4.6 billion.

5.1.2.2. Consumer loans for households

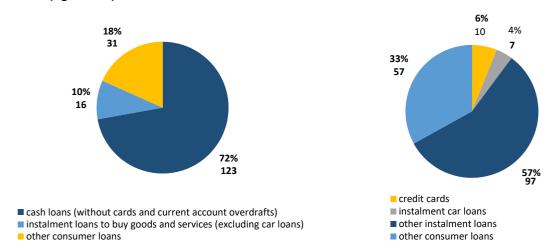
The information found in this part is derived from a non-reported survey of consumer loans for households. The survey covered 28 different banks. The threshold used to select the sample was having a portfolio of consumer loans for households worth over PLN 100 million (as of the end of November 2020).

Size and structure of the portfolio

The carrying amount of the consumer loans portfolio was PLN 171.1 billion at the end of 2020. In comparison with the end of 2019, this value was observed to decrease by PLN 0.5 billion (-0.3%).

The most important item was cash loans (not including cards and current account overdrafts), which accounted for 72.2% of the gross carrying amount of the consumer loans portfolio. According to FINREP classification, instalment loans (including car loans) had the largest share of 60.8%.

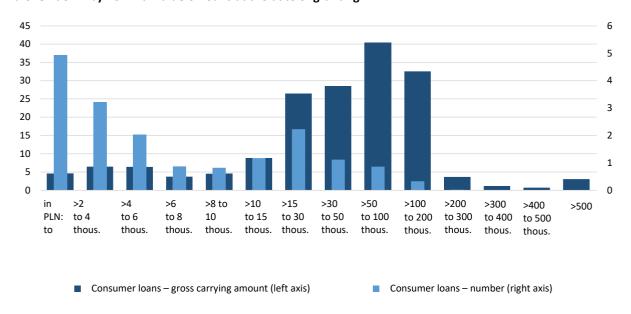
Chart 38 Structure of the consumer loans portfolio at the end of 2020; gross carrying amount (in billions of PLN), total share in consumer loans according to gross carrying amount (in %); classification according to FINREP (right chart)



In 2020, banks derecognised loans worth PLN 3.0 billion in total in their balance sheets due to sale and loans worth PLN 1.1 billion due to moving to off-sheet records.

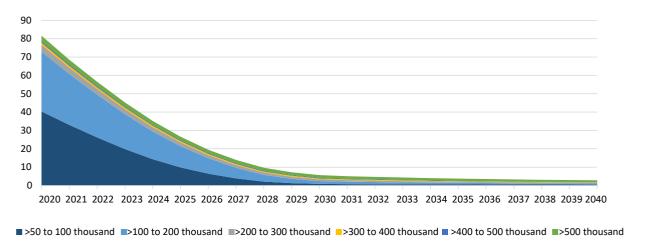
Quantitatively speaking, bank balance sheets were dominated by loans whose total value at the date of granting was up to PLN 2 thousand, while loans with the nominal value from 50 to 100 thousand had the highest total gross carrying amount.

Chart 39 Gross carrying amount (in billions of PLN) and number (in millions) of consumer loans broken down by nominal value of loans at the date of granting



According to original repayment schedules, the gross carrying amount of the high value consumer loans as of the end of 2020 will have shrunk by one half by 2023. The repayment distribution of this portfolio over time can be seen in the following chart.

Chart 40 Repayment distribution over time, as of the end of 2020, of the portfolio of consumer loans with initial value exceeding PLN 50 thousand, assuming that repayments occur according to schedule. The distribution applies to gross carrying amount (in billions of PLN) broken down by initial nominal value (in PLN)



Quality of the consumer loans portfolio

At the end of 2020, non-performing/impaired loans accounted for 11.2% of the total gross carrying amount of consumer loans (9.9% at the end of 2019). For 85.7% of loans (84.8% in 2019), there were no delays in repayment. The remaining part of the portfolio (5.3%) consisted of loans with delays in repayment, but not recognised as impaired.

Table 18 Gross carrying amount of consumer loans, non-performing/impaired consumer loans (billions of PLN) and the share of non-performing/impaired loans in all consumer loans (according to gross carrying amount) broken down by original repayment period and nominal value of the loan at the date of granting

Original repayment period at		N	ominal value at the dat	e of granting the loan	(PLN)				
the date of granting the loan	up to 8 thousand	>8 to 15 thousand	>15 to 30 thousand	>30 to 50 thousand	>50 to 100 thousand	>100 thousand			
Gross carrying amount of consumer loans									
up to 2 years	10.90	3.20	2.71	1.48	1.19	0.86			
> 2 to 5 years	6.48	6.61	12.93	10.09	7.70	2.66			
> 5 to 8 years	1.31	2.25	7.74	10.58	15.27	9.69			
over 8 years	2.19	1.20	3.21	6.34	16.13	28.34			
Gross carrying amount of non-performing/impaired consumer loans									
up to 2 years	0.87	0.33	0.44	0.37	0.53	0.58			
> 2 to 5 years	0.53	0.61	1.17	0.87	0.70	0.65			
> 5 to 8 years	0.13	0.22	0.58	0.84	1.05	1.21			
over 8 years	0.16	0.10	0.29	0.62	1.53	4.77			
	Share of non-perfo	rming/impaired loans	in consumer loans (ac	cording to gross carryi	ng amount)				
up to 2 years	8%	10%	16%	25%	44%	67%			
> 2 to 5 years	8%	9%	9%	9%	9%	24%			
> 5 to 8 years	10%	10%	8%	8%	7%	12%			
over 8 years	7%	9%	9%	10%	9%	17%			

The gross carrying amount of non-performing/impaired loans in balance sheets of banks covered by the survey was PLN 19.1 billion at the end of 2020 (PLN 17.0 billion at the end of 2019), of which loans with high nominal value (over PLN 50 thousand) and a long repayment period (over 5 years) accounted for PLN 8.6 billion.

DSTI

The median value of DSTI distribution fluctuated at the end of 2020 between 20% and 30%

At the end of 2020, the consumer loans portfolio was dominated by loans whose DSTI did not exceed 20%. The share of these loans rose to 28.7% at the end of 2020 from 25.5% at the end of 2019, while the share of loans with DSTI over 60% decreased. This may be evidence of more cautious loan policy of banks in 2020 as well as a decrease in debt service costs paid by borrowers due to falling interest rates in 2020.

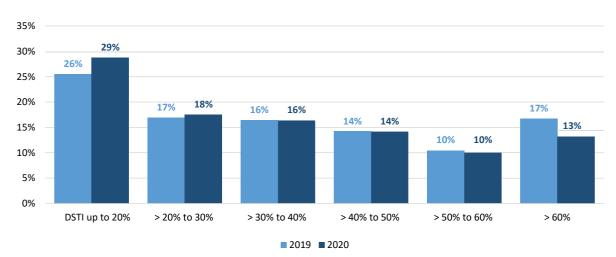


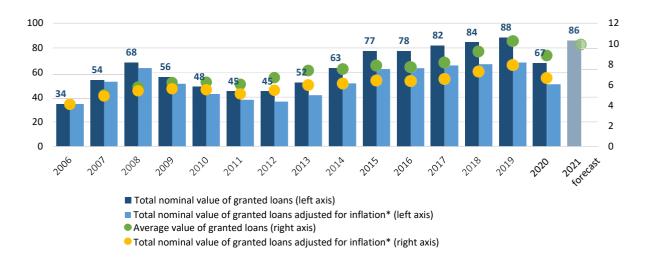
Chart 41 Distribution of gross carrying amount of consumer loans according to DSTI at the end of 2019 and 2020

The total value of consumer loans whose estimated DSTI exceeded 50% at the end of 2020 was ca. PLN 39.8 billion, and that constitutes 23.3% of the value of all consumer loans.

Lending activity in 2020

The total nominal value of consumer loans granted in 2020 was PLN 67.5 billion (a decrease by PLN 20.6 billion and 23.4% YoY). The average nominal value of consumer loans granted in 2020 was PLN 8.9 thousand (10.3 thousand in 2019).

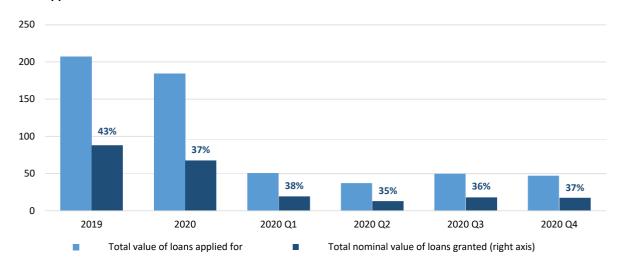
Chart 42 Total nominal value of granted loans (in billions of PLN) and average value of granted loans (in thousands of PLN) in 2006–2020 with projection for 2021.



^{*} Annual consumer price index values (source: Statistics Poland), price index assumed to equal 100 for 2006.

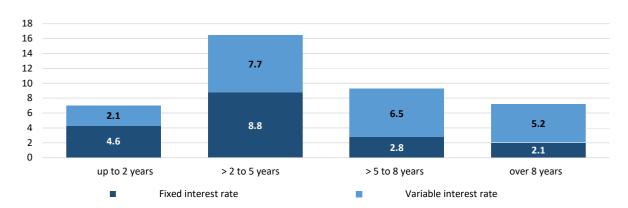
The demand for consumer loans was lower in 2020 than in 2019 – the nominal value of loans applied for decreased by 10.8% YoY. Likewise there was a decrease in the ratio of loans granted to loans applied for, in particular in Q2 2020.

Chart 43 Consumer loans – supply and demand, nominal value (billions of PLN), percentage share in value of loans applied for



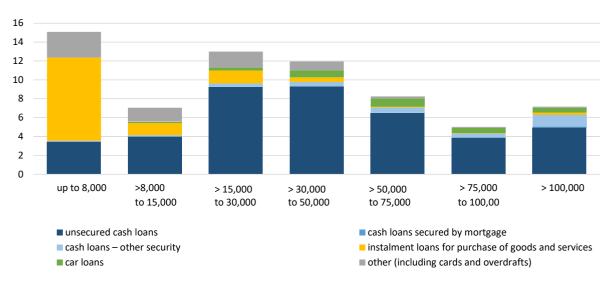
54% of loans granted in 2020 (share according to nominal value) were loans with variable interest rate. A higher share of fixed interest rate loans occurs among loans with lower initial duration.

Chart 44 Nominal value (in billions of PLN) of fixed and variable interest rate loans granted in 2020, broken down by initial duration



Among consumer loans granted in 2020, 66.3% were unsecured cash loans. Loans with value over PLN 50 thousand accounted for 30.3% of the total nominal value of all granted consumer loans (-3.9 p.p. YoY).

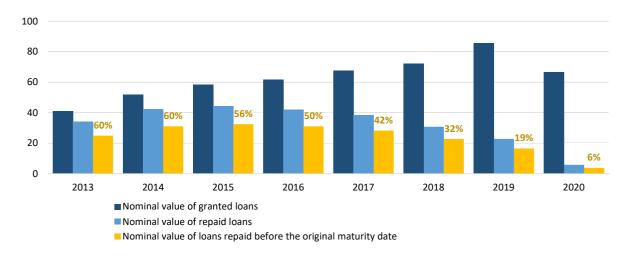
Chart 45 Total nominal value (in billions of PLN) of consumer loans granted in 2020, broken down by loan nominal value (in PLN)



Early repayment of loans

Among consumer loans granted from 2013 to 2020, 37.8% are loans repaid before the original maturity date (share according to nominal value). Such loans account for 73.1% of all loans repaid in that period.

Chart 46 Nominal value (in billions of PLN) of loans granted, repaid and repaid before the original maturity date for loans granted from 2013 to 2020; percentage share of loans repaid before the maturity date in the value of loans granted in each year

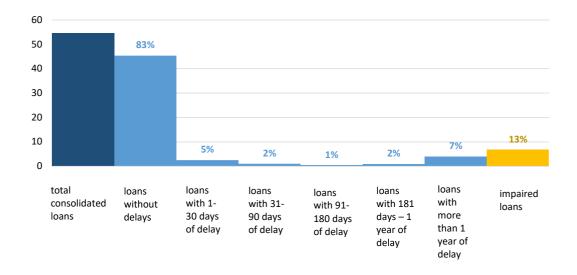


Debt consolidation loans

Consumer debt consolidation loans account for 31.9% of all consumer loans. Their gross carrying amount is equal to PLN 54.6 billion, of which PLN 17.9 billion is the volume taken over from other banks and PLN 24.3 billion is the gross carrying amount of loans arising during consolidation when no loans taken over from another bank are involved.

The gross carrying amount of impaired consolidated loans is PLN 6.9 billion, accounting for 12.6% of the value of the consolidated loans portfolio. 83.2% of the value of the consolidated loans portfolio is loans with no delays in repayment.

Chart 47 Debt consolidation loans, delays in repayment, gross carrying amount (in billions of PLN) at the end of 2020



5.2. Liabilities

In 2020, the structure of loans received and deposits (including blocked deposits) in the sector did not change appreciably compared to 2019. An increase of liabilities towards the government and local government institutions sector was observed.

Dec 2020 Dec 2019 229.7 216.4 12.8% 120.3 85.2 1,438.4 1.273.1 80.4% 80.8% financial sector financial sector general governments general governments non-financial sector non-financial sector

Chart 48 Structure of liabilities related to loans received and deposits (in billions of PLN) in the sector

Together with blocked deposits

Deposits and loans received from the financial sector during the year were on the increase.

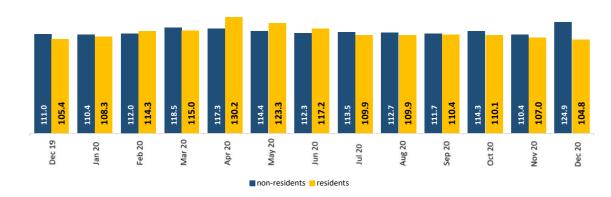


Chart 49 Deposits and loans received from the financial sector (in billions of PLN)

5.2.1. Deposits of the non-financial sector

In 2020, the value of deposits of the non-financial sector increased by 13.0% YoY, or PLN 165.2 billion. The largest growth in the volume of deposits took place in commercial banks, by PLN 148.7 billion, or 13.1% YoY compared to the end of 2019. The highest growth dynamics was observed for deposits in branches of credit institutions (an increase by 50.6% YoY, or PLN +7.2 billion).

Table 19 Deposits of the non-financial sector – structure by sector

	Dec 15	Dec 16	Dec 17	Dec 18	Dec 19	Dec 20	YoY change	
(billions of PLN)						(billions of PLN)	(%)	
Banking sector	938.8	1,028.1	1,070.4	1,158.6	1,269.8	1,434.9	165.2	13.0%
Commercial banks	845.6	924.5	956.8	1,034.0	1,132.0	1,280.6	148.7	13.1%
Cooperative banks	86.5	96.6	105.2	113.6	123.5	132.8	9.3	7.5%
Branches of credit institutions	6.7	6.9	8.4	11.0	14.3	21.6	7.2	50.6%

The deposit structure of the non-financial sector is dominated by households (70.9% compared to 2019, a decrease by 1.4 p.p. YoY) and deposits in PLN (86.5%).

Chart 50 Deposits of the non-financial sector at the end of December 2020 (in billions of PLN)

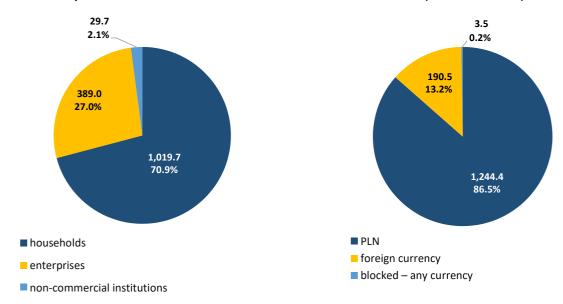


Table 20 Deposits from the non-financial sector – by currency and term

	Dec 15	Dec 16	Dec 17	Dec 18	Dec 19	Dec 20	YoY change 2019/2018	
		(billions of PLN)						(%)
Deposits of households	665.7	730.8	761.3	838.8	919.9	1,018.4	98.5	10.7%
in PLN	603.7	659.1	677.4	746.3	818.4	896.6	78.2	9.6%
in foreign currency	62.0	71.7	83.9	92.5	101.6	121.8	20.2	19.9%
Deposits of enterprises	253.3	274.9	285.0	293.6	322.9	386.8	64.0	19.8%
in PLN	212.4	222.5	219.7	234.5	257.1	319.1	62.1	24.1%
in foreign currency	40.9	52.5	65.2	59.1	65.8	67.7	1.9	2.9%
Current deposits	480.1	575.7	650.9	731.3	844.2	1,136.4	292.2	34.6%
Term deposits	458.7	452.3	419.4	427.3	425.5	298.5	-127.0	-29.8%

In 2020, deposits from both households and enterprises saw an increase by 10.7% (+PLN +98.5 billion) and 19.8% (+PLN +29.3 billion) respectively.

The volume of term deposits decreased by PLN 127.0 billion (-29.8%) YoY, coupled with the rising trend of growth of current deposits by PLN 292.2 billion (+34.6% YoY, compared to an increase of +15.4% in 2019). This confirms that, in a low interest rates environment combined with growing inflation (+2.4% YoY in December 2020), the adjusted negative

interest rate drives customers from the non-financial sector to look for capital investments other than term deposits. An increase of current deposits, which also include savings accounts forming an alternative to deposit terms, can be observed.

Chart 51 Deposits of households (in billions of PLN)

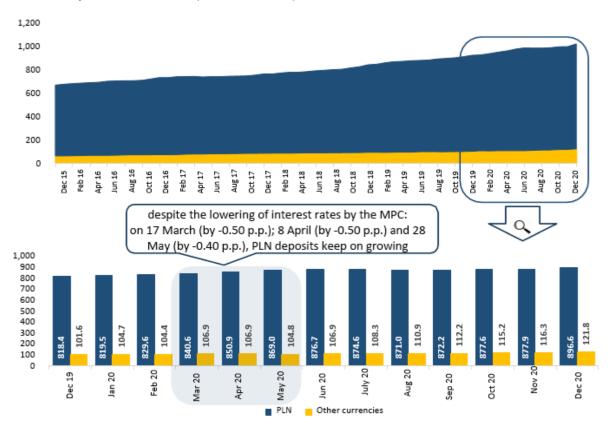
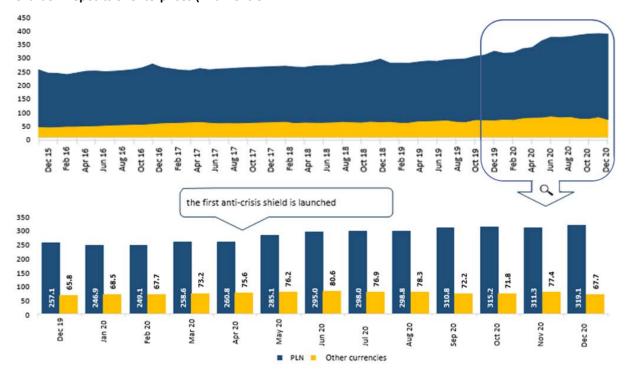


Chart 52 Deposits of enterprises (in billions of PLN



5.2.2. Interest on deposits

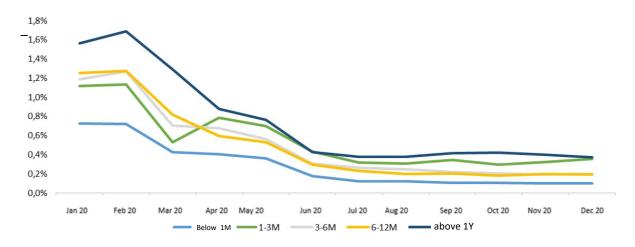
5.2.2.1. Private individuals⁵

- In 2020, due to changes on financial markets, including lowered interest rates, the interest on deposits systematically declined. Near the end of the year, the rates stabilised.
- The number of different deposits gradually contracted from 486 different products in January to 407 in December.
- The highest interest rate (0.38%) was offered on deposits for more than one year, and the lowest (0.10%) on deposits up to one month.
- Due to changes on the market resulting from the pandemic, the rates for deposits for 1–3 months gradually converged with rates for deposits for more than one year. This can also be the result of a relatively high interest on 3M deposits, which are often treated as promotional and offered to new clients on preferential terms.

Chart 53 Changes of interest rates over time in 2020



Chart 54 Changes of average interest rates in 2020 broken down by maturity date



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⁵ On the market, term deposits for private individuals were offered by 18 commercial banks and 3 branches of credit institutions (the survey did not include offers not listed on bank websites and negotiated deposits).

5.2.2.2. Enterprises⁶

- In the first half of the year, the average interest on deposits followed a downward trend. Later, rates remained stable at a low level.
- In 2020, three banks stopped offering deposits to enterprises. As a result, the number of different deposit products declined over the year from 143 (January) to 122 (December).
- The highest interest rate was offered for deposits maturing in excess of 1 year (January: 1.46%, December: 0.20%). At the end of the year the interest on deposits with other maturities was similar, equal to about 0.10%.

Chart 55 Changes of average interest rates over time in 2020

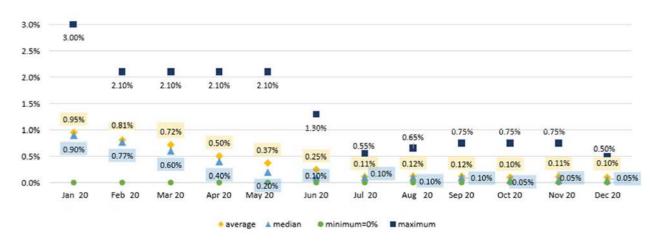
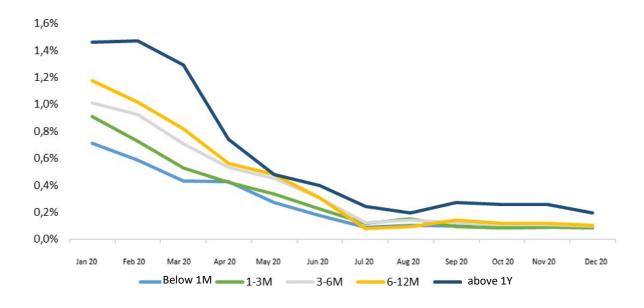


Chart 56 Changes of average interest rates in 2020 broken down by maturity date



⁶ On the market, deposits for enterprises were offered to by 13 commercial banks (the survey did not include offers not listed on bank websites and negotiated deposits). Branches of credit institutions do not offer deposits to this group of customers via websites.

6. Aid measures utilised - moratoria, guarantees, other restructuring activities

On 2 June 2020, the European Bank Authority (EBA) Guidelines on reporting and disclosure of exposures subject to measures applied in response to the COVID-19 crisis (EBA/GL/2020/07) entered into force. The Guidelines set out the scope and uniform formats of data required by competent authorities that exercise regulatory rights related to reporting (hereinafter: COVID reporting) of:

- exposures meeting the conditions set out in point 10 of EBA Guidelines on legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis (EBA/GL/2020/02);
- exposures subject to restructuring activities applied in response to the COVID-19 crisis;
- newly originated exposures that are subject to public guarantee schemes introduced by member states in response to the COVID-19 crisis.

Chart 57 Share of moratoria in the loans portfolio

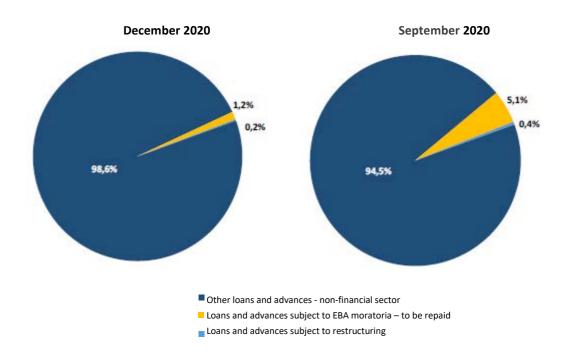
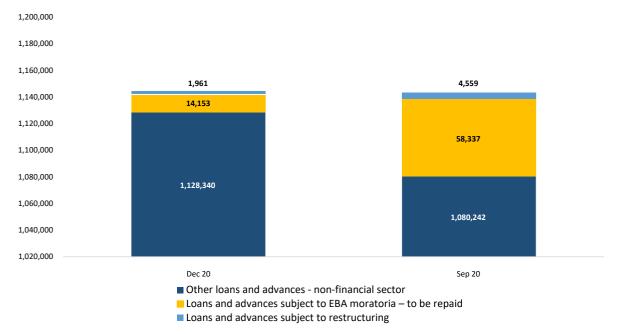
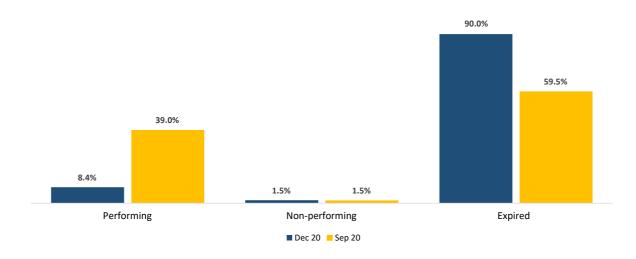


Chart 58 Moratoria and restructuring activities (as of; millions of PLN)



As of the end of 2020, moratoria compliant with EBA guidelines were applied to a portfolio of loans worth PLN 142.0 billion (gross), of which PLN 14.2 billion were active at the end of December, accounting for 1.2% of loans and advances of the non-financial sector. 98.8% of moratoria were extrastatutory moratoria. In addition to moratoria, restructuring activities related to COVID-19 were undertaken, whose total amount was PLN 6.0 billion, of which PLN 4.0 billion had already expired.

Chart 59 Loans and advances granted and EBA moratoria



At the end of 2020, moratoria for loans worth PLN 127.8 billion expired, of which 95.5% were serviced and PLN 41.0 billion (gross) classified as stage 2.

Chart 60 Structure of moratoria by effective period (residual maturity)

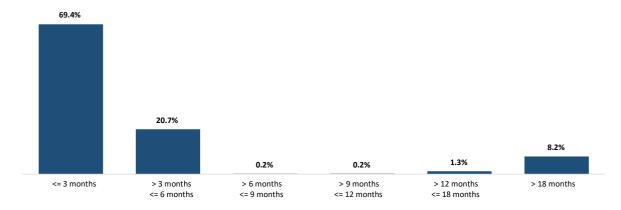
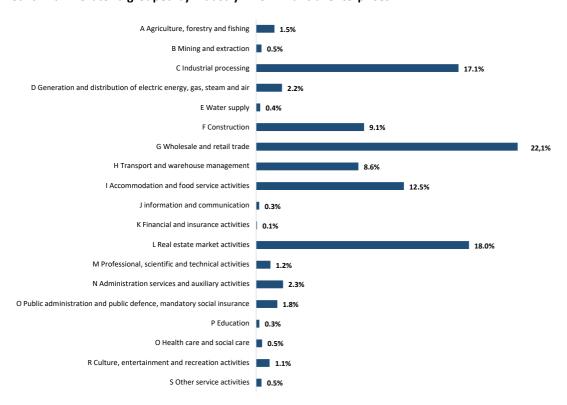


Chart 61 Loans with moratoria grouped by industry - non-financial enterprises



The largest share of loans with moratoria compliant with EBA guidelines refers to the following sections:

- G Wholesale and retail trade (PLN 1.8 billion),
- L Real estate market activities (PLN 1.5 billion),
- C Industrial processing (PLN 1.4 billion),
- I Accommodation and food service activities (PLN 1.0 billion),
- F Construction (PLN 0.8 billion),
- H Transport and warehouse management (PLN 0.7 billion).

At the end of December 2020, stage 1 loans accounted on average for 52.5% of the portfolio with moratorium (average share of loans weighted with gross value), and stage 2 loans,

likewise on average, for 32.0%. It should be remembered that such loans can be reclassified as stage 3 once the moratoria expire.

In this portfolio, the differences in NPL provisions coverage were rather large (from 7% to 80%) In addition, the average coverage weighted with the gross value of exposure was lower than for the entire portfolio of loans for the non-financial sector (for commercial banks, stage 3 provisions coverage was 60.9% while for banks with moratoria NPL provisions coverage was 24.3%).

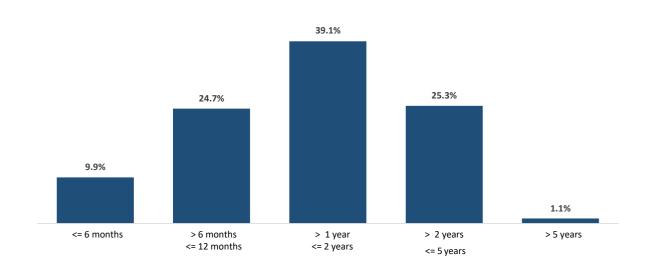


Chart 62 Structure of guarantees by maturity date

As of the end of 2020, the value of loans granted by banks and covered by public guarantee was PLN 18.5 billion.

7. Capital adequacy

In 2020, the equity situation of the banking sector remained stable. The value of own funds of the sector was at the end of 2020 equal to PLN 231.9 billion (+10.2% YoY). Tier I capital accounted for 89.4% of own funds.

The amount of exposure to credit risk in the banking sector decreased by 1.5% YoY. The amount of exposure to operating risk, on the other hand, rose by 19.6% compared to the end of 2019, which was mainly caused by legal risk related to the portfolio of foreign currency housing loans. The growth of exposure to other kinds of risk at the end of 2020 was the result of temporary increase of the open foreign currency position. The total amount of risk exposure increased by 1.5% YoY.

Table 21 Own funds, amount of risk exposure

	Value (in billions of PLN)		YoY change		
	Dec 20	Dec 19	(billions of PLN)	percentage	
Own funds					
banking sector	231.9	210.3	21.5	10.2%	
commercial banks	218.8	197.9	20.9	10.5%	
cooperative banks	13.1	12.4	0.7	5.4%	
Tier I capital					
banking sector	207.3	187.6	19.7	10.5%	
commercial banks	194.7	175.8	18.9	10.8%	
cooperative banks	12.6	11.9	0.8	6.7%	
Tier II capital					
banking sector	24.5	22.7	1.8	8.0%	
commercial banks	24.1	22.1	1.9	8.8%	
cooperative banks	0.4	0.6	-0.1	-22.3%	
Total amount of risk exposure					
banking sector	1,118.1	1,101.9	16.1	1.5%	
commercial banks	1,049.0	1,031.9	17.1	1.7%	
cooperative banks	69.0	70.0	-1.0	-1.4%	
Amount of exposure – credit risk					
banking sector	986.5	1,001.9	-15.4	-1.5%	
commercial banks	926.4	940.8	-14.4	-1.5%	
cooperative banks	60.0	61.1	-1.0	-1.7%	
Amount of exposure – operating risk					
banking sector	98.8	82.6	16.2	19.6%	
commercial banks	89.9	73.7	16.2	22.0%	
cooperative banks	9.0	8.9	0.0	0.5%	
Amount of exposure – other kinds of risk					
banking sector	32.7	17.4	15.3	87.7%	
commercial banks	32.7	17.4	15.3	87.7%	
cooperative banks	0.0	0.0	0.0	-89.3%	

A considerable increase in value of own funds, which is the result of banks retaining their 2019 profits as recommended by the KNF, and the lower increase of the amount of risk exposure in the banking sector caused the total capital ratio (TCR) to rise by 1.7 p.p. At the end of 2020, TCR for the entire banking sector was 20.7% - 20.9% for commercial banks and 18.9% for cooperative banks.

Table 22 Capital ratios (in %)

	Dec 20	Dec 19	YoY change (p.p.)		
Total capital ratio (TCR)					
banking sector	20.7%	19.1%	1.7		
commercial banks	20.9%	19.2%	1.7		
cooperative banks	18.9%	17.7%	1.2		
T1 – Tier I capital ratio					
banking sector	18.5%	17.0%	1.5		
commercial banks	18.6%	17.0%	1.5		
cooperative banks	18.3%	16.9%	1.4		
CET1 – Common equity tier I capital ratio					
banking sector	18.5%	17.0%	1.5		
commercial banks	18.6%	17.0%	1.5		
cooperative banks	18.3%	16.9%	1.4		

Table 23 Shortage of capital in the commercial banks subsector

	Total shortage of capital (millions of PLN)	Number of banks with shortage	Share in assets of the banking sector
Commercial banks			
Compared to regulatory minimum	1,143.4	2	2.7%
Compared to regulatory minimum plus combined buffer	2,278.9	3	2.8%
Cooperative banks			
Compared to regulatory minimum	19.6	2	0.0%
Compared to regulatory minimum plus combined buffer	23.4	2	0.0%

At the end of 2020, two commercial banks and two cooperative banks did not meet regulatory requirements concerning minimum levels of capital ratios. The share of these banks in assets of the banking sector was 2.8%. Three commercial banks and two cooperative banks did not meet the regulatory minimum plus combined buffer requirement. Their share in assets of the banking sector was 2.8% The total shortage of capital reached PLN 2.3 billion. The other banks recorded a PLN 100.5 billion surplus over regulatory minimum plus combined buffer. The almost double increase of this surplus compared to the end of 2019 is the result of improved value of own funds (PLN +21.5 billion YoY for the entire banking sector) and abolishing the obligation to maintain a systemic risk buffer, previously 3%, in March 2020.

Systemically important institutions (O-SII) in Poland in 2020

By a FSA decision of 26 October 2020, ten banks have been identified as O-SIIs and assigned the following buffer values:

Item	Bank name	Rate of O-SII buffer after the decision	Rate of O-SII buffer prior to the decision
1	PKO BP	1.00%	1.00%
2	Santander BP	0.75%	0.75%
3	Pekao	0.75%	0.75%
4	mBank	0.50%	0.75%
5	ING BSK	0.50%	0.50%
6	Bank Handlowy	0.25%	0.25%
7	BNP Paribas	0.25%	0.25%
8	Bank Millennium	0.25%	none
9	Bank Polskiej Spółdzielczości	0.10%	0.10%
10	SGB Bank	0.10%	0.10%

The decision added one bank, the Bank Millennium, to the list of O-SIIs.

8. MREL requirement for commercial banks

8.1. A new method of determining the MREL threshold, proposed by the BGF

Although legislative works meant to implement the provisions of amended 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 (hereinafter: BRRD) into the Act on the Bank Guarantee Fund, Deposit Guarantee Scheme and Resolution of 10 June 2016 (hereinafter: the BGF Act) have not yet been completed, the Bank Guarantee Fund (hereinafter: BGF or Fund) published on its website a proposal for determining the MREL requirement that takes into account changes resulting from the BRRD amendment.

The BRRD amendment introduces a new approach in determining the MREL requirement, which will henceforth be worked out as a percentage of the total risk exposure calculated using the same method as the capital adequacy ratio and a percentage of the total exposure measure calculated using the same method as the leverage ratio. The banks are required to comply with the higher of the two values. In addition, the minimum requirement for own funds and eligible liabilities is 8% of own funds and liabilities.

Concurrently, own funds used to comply with the MREL requirement must not be used to fulfil the combined buffer requirement. In practice, this means that the actual demand of banks for own funds and eligible liabilities is equal to the sum of MREL and combined buffer requirements.

8.2. Surplus/shortage of own funds and eligible liabilities for commercial banks

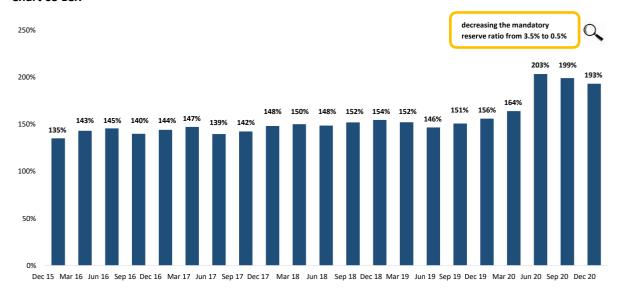
According to the BRRD and the draft Act to amend the BGF Act, the first date by which banks pursuing a strategy other than liquidation will be required to fulfil the indirect level in the MREL requirement compliance path is 31 December 2021.

Currently the majority of banks meet the target MREL level, taking into account the combined buffer level. The total shortage of MREL instruments as of 31 December 2020 in the commercial banks subsector was about PLN 6.3 billion. The considerable shortage of MREL instruments compared to 2019 estimates is mostly caused by the fact that the trend in own funds of banks (which is the offshoot, among others, of the KNF dividend policy) is for the majority of banks higher than the RWA trend (over the last 6 years). Another factor is the abolition of the obligation to maintain a systemic risk buffer. The vast majority (82%) of MREL instruments are Tier 1 funds. This means that, even if the systemic risk buffer is restored, banks could cover the extra shortage of MREL instruments by issuing instruments with lower quality, such as subordinated or eligible liabilities.

9. Liquidity

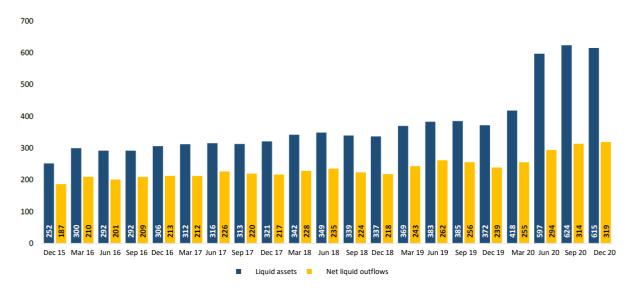
At the end of 2020, all banks complied with the current short-term liquidity standard: LCR (commercial banks and cooperative banks not covered by the institutional protection systems (IPS) individually, and banks belonging to IPS on the level of IPS). In the commercial banks subsector, the average value of this ratio has for years exceeded 100%, reaching 193% at the end of 2020.

Chart 63 LCR



The improving liquidity situation is affected by a faster growth of liquid assets compared to net inflows. In 2020, besides a regular increase in the level of liquid assets observed in recent years, strengthened additionally by an influx of funds granted to entrepreneurs as part of the anti-crisis shield, the liquid position of the banking sector was greatly affected by lowering the mandatory reserve rate from 3.5% to 0.5%, a move that resulted in an upsurge of available liquid assets.

Chart 64 Liquid assets and net liquidity outflows (in billions of PLN)



The net stable funding ratio (NFSR) in the commercial banks subsector has for years exceeded 100%. At the end of 2020, the ratio was equal to 147%. Three commercial banks reported a value below 100% at the end of 2020. The NSFR became a mandatory standard for banks in June 2021.

Chart 65 NSFR

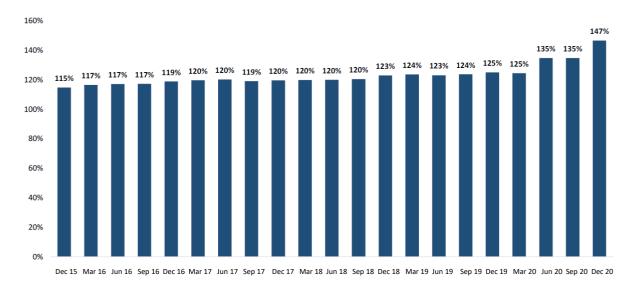
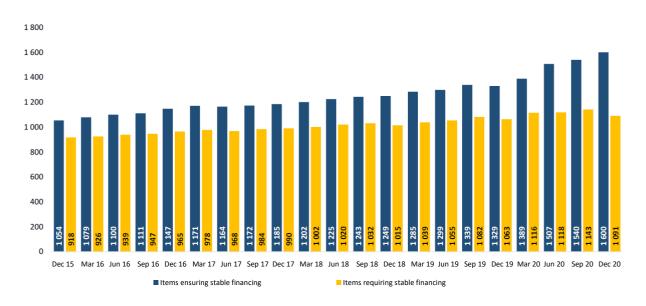


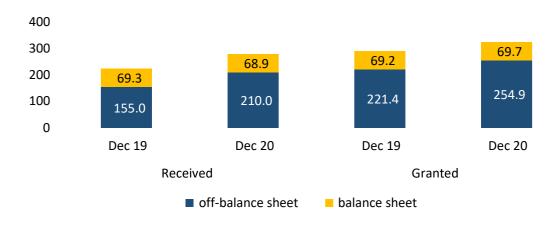
Chart 66 Items ensuring and requiring stable financing (billions of PLN)



10. Financing in transactions with affiliates

At the end of 2020, commercial banks granted to their affiliates financing equal to PLN 278.9 billion, of which 75.3% consisted of off-balance sheet financing. In turn, commercial banks received financing equal to PLN 324.6 billion, of which 78.2% consisted of off-balance sheet financing. The importance of off-balance sheet financing granted and received in 2020 increased compared to 2019 while the role of balance sheet financing waned, a trend persisting since 2018. The balance of financing was PLN 45.6 billion in 2020, less than PLN 21.3 billion YoY, mainly due to a large increase of granted off-balance sheet financing.

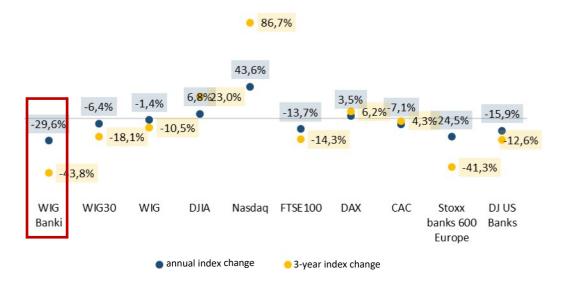
Chart 67 Structure of financing in billions of PLN



11. Situation of banks traded on the WSE

In 2020, the WIG Banki index lost 29.6%, i.e. much more than other important WSE indexes. During the year, other indexes reflecting the banking sector in other markets also lost their value. For example, the value of STOXX Banks Europe fell by 24.5% and DJ US Banks (comprising 55 US banks) lost 15.9%.

Chart 68 Changes of WIG Banki value compared to other indexes



Similarly in the three-year perspective, losses of the WIG Banki index were larger than those of other important WSE indexes. Meanwhile, the three-year slump of WIG Banki was comparable to the weakening of Stoxx Banks 600 Europe and more pronounced than the decline of DJ US Banks.

In 2020 the banking sector, like in previous years, maintained the trend of growing volume of granted off-balance sheet liabilities related to financing and received guarantee liabilities. Two thirds of granted liabilities related to financing were credit lines, while in case of received guarantees more than one half consisted of credit repayment guarantees.



Chart 69 Off-balance sheet liabilities of the banking sector (billions of PLN)

As in previous years, in 2020 the structure of off-balance sheet liabilities by subject did not change either, with liabilities related to financing and guarantees for the non-financial sector still dominating. In case of received liabilities, guarantees were granted by the non-financial sector, while the majority of liabilities related to financing originated from the financial sector.

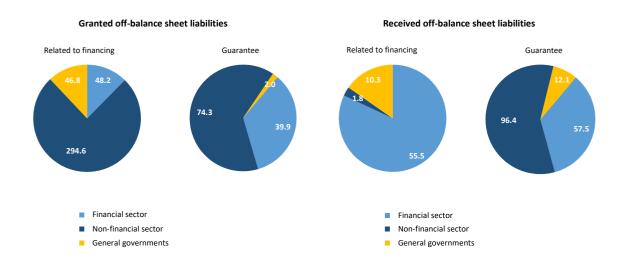


Chart 70 Off-balance sheet liabilities – structure by subject (December 2020, billions of PLN)

13. IT risk – key IT risk indicators of commercial banks

Global trends in the banking sector point to the increasing importance of IT in achieving comparative advantage over competitors. Automating some of the processes allows cutting down costs of employment and rental of premises, which is especially important when possibilities of wresting extra interest income are limited. The current pandemic restrictions provide an additional stimulus for the sector to change.

The rising importance of digital service channels also requires ensuring that systems are secure and can be accessed without interruption. The following data demonstrate the scale of electronic banking faults and incidents in commercial banks over the last 18 quarters, or four and a half years. The data presented below are reported on a quarterly basis with respect to events occurring in three areas:

- 1. Failures including the number of failures in critical systems and the total time of their unavailability. Critical systems are defined by each entity internally.
- 2. Security incidents number of incidents identified by the bank which have the highest level of criticality.
- 3. Electronic banking data on both the number of faults and downtime (both planned and unplanned) and the value of operational losses in IT.

Critical systems

A downward trend in the number of banks which did not face a critical system failure in each quarter can be observed. This may be caused by both the higher load of systems due to the pandemic (when electronic channels became more popular) and the consolidation of the sector (lower number of reporting banks).

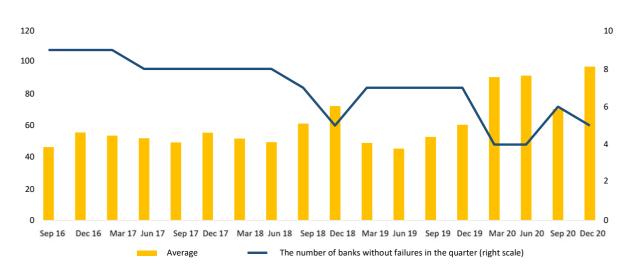


Chart 71 Average number of critical system failures in commercial banks

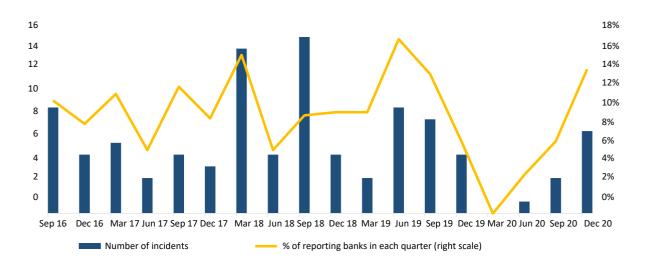
In 2020, downtime caused by failures decreased. The average downtime of critical systems in banks was 78 hours in 2018, 61 hours and 34 minutes in 2019, and 46 hours and 32 minutes in 2020. On the other hand, in 2017 the average system downtime was 43 hours 29 minutes, and it was lower than in 2020.

Chart 72 Average downtime of critical systems in banks



In 2020, the number of security incidents with the highest level of criticality likewise decreased. It should be stressed that these are incidents on institution level (internal to banks) and not incidents on the financial market which mostly (quantitatively speaking) affect clients. The percentage of banks that reported the occurrence of a security incidents and the number of incidents in each quarter are shown on the following chart.

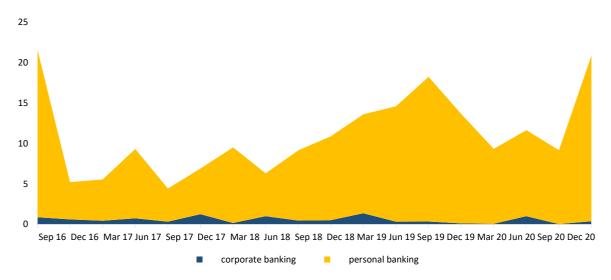
Chart 73 Number of incidents in banks in each quarter



Operational losses in IT

The majority of losses sustained by banks applies to personal banking. Banks reported that the combined operational losses of corporate banking since mid-2016 has accounted for 5.2% of the value of operational losses in IT for both corporate and personal banking.

Chart 74 Value of operational losses in IT (in millions of PLN)

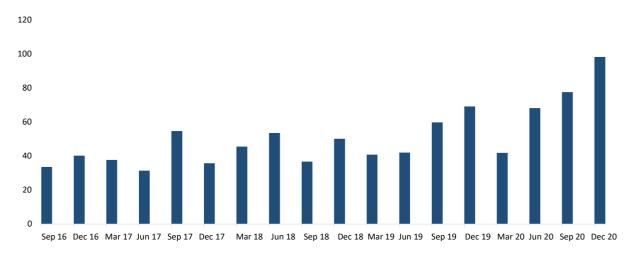


Higher client operating losses related to electronic banking failures are reported by large banks that maintain a larger number of accounts.

Inaccessibility of electronic banking for bank clients

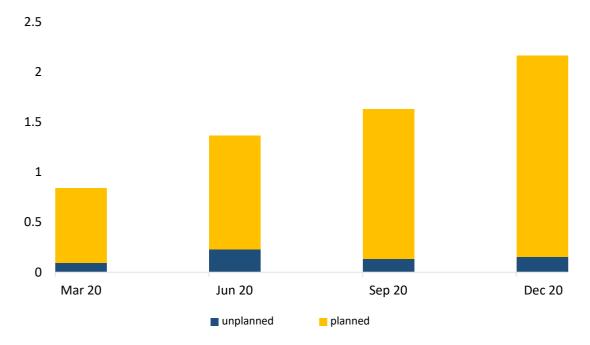
The average downtime of electronic banking has recently seen a major increase. A possible explanation of this development is a considerable increase of interest in electronic banking during the pandemic, affecting the need to adjust bank IT systems to the new situation. Proof of this is offered by the following chart showing the relationship between planned and unplanned interruptions in access to electronic banking.

Chart 75 Average electronic banking downtime for bank clients (hours per quarter)



2020 data show that the time during which clients experienced difficulties with accessing their accounts was for the most part planned. Only in 10.2% of cases the downtime was caused by failures and urgent maintenance work which could not be scheduled in advance.

Chart 76 Total time of planned and unplanned downtime of electronic banking for clients of banks (in thousands of hours per quarter)



14. Payment and fraudulent transactions in commercial banks in 2020

As of 14 September 2019, banks became required to apply Article 32i of the Payment Services Act of 19 August 2011 as regards strong client authentication if a paying client accesses its account online, initiates a remote payment transaction or uses a remote channel for an activity that may involve the risk of fraud related to payment services offered or other abuse. In its opinion of 21 June 2019 EBA stated that, by way of exception and to avoid unintended negative consequences for users of payment services, after 14 September 2019 the regulatory authorities of Member States may allow a limited grace period to migrate currently used authentication methods to solutions fully compliant with strong client authentication requirements. Accordingly, 2020 saw the introduction of some of the solutions resulting from the new regulatory environment.

In 2020, the importance of bank compliance with obligations resulting from the Payment Services Act and the PSD2 directive grew considerably. This is mostly the result of banks employing strong client authentication that consists of reinforced authorisation of payment transactions based on two independent factors and the increased importance of risk analysis methods pursued by the banks on their own as an exception from this rule. Accordingly, the regulatory conditions of effecting payment transactions became much more stricter in order to, on the one hand, limit the number of frauds, and on the other, provide the regulated entities with certain instruments, allowing strong authentication to be turned off, provided that suitable and adequate analytical tools are used to eliminate transactions of dubious origin.

The total number of payment transactions performed by commercial banks in 2020 was 13.8 billion operations (an increase by 19.8% YoY) for the total value of PLN 22.9 trillion (an increase by 6.6%). The average value of a completed payment transaction was PLN 1,652.03. Six regulated entities performed more than 75% of all transactions for the entire banking sector.

Fraudulent transactions

The definition of payment transactions is based on the subjective scope set out in the Guidelines on fraud reporting on the basis of Article 96(6) of the second payment services directive (PSD2). The guidelines list detailed information on statistical data related to fraud linked to different payment methods, which providers of payment services (including banks) must report to their respective authorities.

As a provider of payment services, a bank should report all fraudulent payment transactions once the fraud is discovered, for example due to customer complaint or otherwise, regardless of whether the fraudulent payment transaction case was closed before the data were reported.

The guidelines on reporting payment transactions apply since 1 January 2019, except for reporting data related to exemptions from using strong client authentication which are provided 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, and apply since 14 September 2019.

A fraudulent transaction should be understood as:

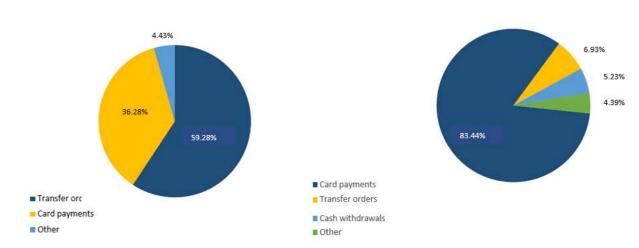
- unauthorised payment transactions made, including as a result of the loss, theft or misappropriation of sensitive payment data or a payment instrument, whether detectable or not to the payer prior to a payment and whether or not caused by gross negligence of the payer or executed in the absence of consent by the payer ("unauthorised payment transactions");
- payment transactions 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 service provider, in good-faith, to a payment account it believes belongs to a legitimate payee ("manipulation of the payer").

The total number of payment transactions completed by commercial banks in 2020, which turned out to be fraudulent, was 322,451 operations (increase by 52.7% YoY) for the total value of PLN 264.7 million (-7.7% YoY). The average value of a completed fraudulent payment transaction was PLN 820.02.

Chart 77 Fraudulent payment transactions







The largest share of fraudulent payment transactions are card payments (83.4% of all payment transactions), which is mostly the result of such fraud being linked to the ecommerce market. However, compared by the value involved in each type of fraudulent transactions, they account only for 36.3% of all frauds. Fraudulent card payments are rather incidental compared to the entire volume of card payments, and payment organisations also ensure suitable protection in the form of chargeback. At the same time, access to funds via payment cards is limited, because obtaining card data does not allow modification of electronic banking settings or access to the client panel.

At the same time, although transfer orders account for just 6.9% of fraudulent transactions, by value they are 59.3% of all transactions because it is possible to siphon away much larger amounts than in case of card transactions (due to setting higher transaction limits, assigning trusted party status or performing other activities in the electronic banking system). Other types of fraudulent transactions include also payment transactions initiated by providers who offer payment initiation services, purchased card payments, direct debits, payment transactions using electronic money, and money order services. However, in none of the analysed aspects is their share greater than 5% of all fraudulent transactions.

Considering the specific nature and size of each investment bank, the most meaningful benchmark appears to be the ratio of fraudulent transactions to all payment transactions completed in a given period. If the fraud ratio is sufficiently low, commercial banks, as providers of payment services, may waive the requirement to use strong authentication, especially when minor amounts are involved. In Delegated Regulation (EU) 2018/389 of 27 November 2017 with regard to regulatory technical standards for strong customer authentication and common and secure open standards of communication, the European Commission considers fraud ratio values from 0.13% to 0.005 as referential for various types of transactions and amount thresholds.

The average fraud ratio for commercial banks is 0.31% (increase from 0.27% in 2019). An upward tendency can be observed related to the rising share of fraudulent transactions despite the general increase of the number of transactions performed by commercial banks. The current legal and organisational environment related to using strong client authentication force banking entities to introduce detailed technological solutions limiting the number of fraudulent transactions. Whether these measures prove effective will affect the growth rate of fraudulent transactions on the market and the assessment of introduced solutions.

An essential part of regulatory activities will be the analysis of reports submitted in 2021 to determine whether the entry of new regulations into force led to halting the growing trend and limiting the general share of fraudulent transactions in the entire operational area at least for some of the entities involved. The potential activities will be based on selecting entities whose task will be to introduce corrective measures in order to improve reporting indicators.

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