



NARODOWY
BANK POLSKI

December 2024

Financial Stability Report



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Financial Stability Report

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This Report presents the analysis and assessment of threats to financial system stability in Poland.

The stability of the financial system is a situation when it performs its functions in a continuous and efficient way, even when unexpected, highly adverse and low-probability disturbances occur on a significant scale.

The analysis conducted in this issue of the report is based on data available up to 31 October 2024 (cut-off date). The report was approved by the Management Board of Narodowy Bank Polski on 13 December 2024.

This Report is a translation of NBP's *Raport o stabilności finansowej. Grudzień 2024 r.* in Polish. In case of discrepancies, the original prevails.

Table of Contents

Executive summary	6
Recommendations	8
1. Macroeconomic and external factors	11
1.1. External factors	11
1.2. Macroeconomic situation in Poland	17
1.3. Financial markets	18
1.4. Real estate market	21
2. Banking sector situation	27
2.1. Lending	27
2.2. Credit risk	31
2.3. Risk related to the banking sector exposure to Treasury bonds	41
2.4. Legal risk associated with the portfolio of FX housing loans	42
2.5. Liquidity risk and funding	45
2.6. Earnings	52
2.7. Capital adequacy	62
2.8. Stress tests	66
2.9. Market assessment of banks	73
2.10. Selected indicators describing the situation of the banking sector	76
3. Non-banking sector situation	79
3.1. Insurance companies	79
3.2. Investment funds	86
4. Systemic risk assessment	95
4.1. Structural risk: <i>elevated but poses no threat to financial stability</i>	96
4.2. Cyclical risk: <i>remains moderate amid high uncertainty</i>	104
Glossary	112
Abbreviations	116

List of Boxes

- Box 1.1. Geopolitical risk – consequences for the financial system and ways to respond13**
- Box 2.1. Long-term funding ratio (WFD).....49**
- Box 2.2. Interest Rate Risk in the Banking Book (IRRBB).....54**
- Box 4.1. Questioning the use of the WIBOR benchmark in consumer loan agreements.....97**
- Box 4.2. Interest rate benchmark reform in Poland.....99**
- Box 4.3. DSTI ratios for housing loans granted in the years 2022-2024.....107**

Executive summary

The domestic banking sector, a key element of Poland's financial system, remains resilient. Banks demonstrate great capacity to absorb losses and provide banking services, even in pessimistic stress test scenarios. Banks' substantial excess capital creates favourable conditions for activation of the neutral countercyclical capital buffer, while simultaneously maintaining room for the development of lending. The key risks in the financial system are of a structural nature and are primarily associated with legal risk and regulatory risk. Cyclical risk runs at a moderate level and poses no threat to financial stability in Poland.

The lending growth rate to the non-financial sector begins to recover, however its pace in the next two years will not be high enough for the loan-to-GDP ratio to increase markedly. The causes of this development mainly originate in persistently low loan demand.

Legal risk associated with FX housing loans remains the major burden to the domestic banking sector, however, banks manage it effectively. For four years, banks have offered settlements to their clients and set aside appropriate provisions. The costs of provisioning are high and will remain high in the near future, although they will be substantially lower than the costs incurred so far. Such costs should not endanger the stability of the banking sector and its ability to provide lending to the economy.

The financial system assessment has for some time been significantly affected by the volatility of the legal environment in which banks carry on their activities. This volatility stems both from new legislative initiatives (i.e. loan repayment holidays) as well as uncertainty about the interpretation of the provisions of law on consumer protection. This diminishes predictability of the operating conditions of banks and the credit market and may result in higher costs of credit or its limited availability to customers, especially households. As the costs of such risk materialisation are difficult to estimate, the domestic banking attractiveness is lower in the perception of investors.

The benchmark reform is progressing, although it has encountered a number of challenges. In December 2024, the Steering Committee of the NGR, after conducting an additional round of public consultations which took into account a modified list of interest rate index proposals, selected a proposal for an index from the WIRF group as the ultimate interest rate benchmark to replace the WIBOR benchmark. WIBOR remains the critical benchmark on the domestic financial market until the reform has been finalised.

Credit risk remains moderate and poses no threat to banking system stability. The costs of this risk should remain moderate owing to the robust labour market, the still relatively high corporate capacity to service liabilities and banks' prudential lending policy in the past.

Banks in Poland demonstrate high resilience to liquidity risk. This is because of, among others, the high share of retail deposit funding, small deposit concentration, high share of guaranteed deposits and the large portfolio of liquid assets.

Banks' investment in Treasury bonds and State Treasury-guaranteed bonds remains high, but the banks' sensitivity to risk associated with such exposure is moderate. The substantial share of bonds on the balance sheets of banks is the result of the reduced demand for private sector loans, observed over several years, and at the same time of increased demand for funding from the public sector. The fall in loan demand from the private sector occurred against a background of persisting macroeconomic uncertainty, a high amount of funds in the bank accounts of enterprises (received as part of the public subsidy programmes during the pandemic) and the higher cost of credit. Tax incentives associated with the design of the tax on certain financial institutions are an additional driver of the increased share of Treasury bonds on banks' balance sheets. Despite the high share of Treasury bonds, the sensitivity of banks to changes in bond valuation is limited due to the fact that a considerable portion of the portfolio is held to maturity and that its duration is relatively short. A part of the portfolio of marked-to-market Treasury securities is sufficient to cover large scale liquidity risk.

In the insurance sector, as there is a lack of regulatory restrictions on double gearing of capital and the proportion of expected profits included in future premiums (EPIFP) in own funds is high, the real resilience of insurance companies is inadequately reflected by capital ratios. The size of the phenomena in the domestic insurance sector is significant and is noticeably well above the EU average. Imposing a restriction on double gearing and eliminating EPIFP would result in a substantial decline in the sector's SCR, but it would remain above the statutory minimum level.

Despite the record high net inflows to open-ended investment funds, they have not sought to increase the share of the most liquid assets. In the case of market shocks, a low liquidity ratio limits the capacity of investment funds to fulfil the requests for redemption in a timely manner. Therefore, excessive liquidity transformation remains a risk factor in the sector.

Recommendations

In addition to identifying and assessing risk in the financial system, the role of the Report is to offer measures aimed at mitigating systemic risk. This is one of the ways to fulfil the statutory mandate of NBP, which includes acting to maintain domestic financial stability (Article 3 paragraph 2 items 6a and 6b of the Act on Narodowy Bank Polski). In the opinion of NBP, implementation of the following recommendations will be conducive to maintaining the stability of Poland's financial system.

1. Reduction of legal and regulatory risk

A reduction of uncertainty about the legal and regulatory environment in which the financial system functions is desirable, as well as consideration of the principle of proportionality in consumer protection activities. Predictability of the environment in which the financial system functions facilitates risk assessment and has a favourable impact on access to credit and other financial services. A review of existing consumer protection regulations for consumers of financial services would be warranted with a view of maintaining the principle of proportionality. In particular, work on the amendment of the Act on Consumer Credit should result in the modification of the current provisions on a free credit penalty. **In turn, financial institutions should approach the construction of contracts with consumers with particular care and inform them adequately about the offered products.**

2. Reform of interest rate benchmarks

Efforts should be made to ensure unquestionable quality of the input data of the index which is to ultimately replace WIBOR. In the process of replacing the benchmarks, it should be a priority to ensure that the data provided by banks for the calculation of this index are reliable and error-free.

3. Stable lending to the economy

Banks should seek to reverse the trend of a gradual decline in loans in their assets, which should be supported by reducing negative external stimuli affecting the supply of credit. Although the decline in the private sector credit-to-GDP ratio is mainly demand-driven, at the same time there are factors limiting its supply to public sector financing. In this context, suitable modification of the tax on assets would be conducive to increasing the availability of credit. From the point of view of the long-term development of the Polish economy, the stimulation of credit for enterprises is particularly warranted.

4. Settlements in FX housing loan

Banks should continue the process of concluding settlements with borrowers in cases concerning housing loan in foreign currencies. The efficient conduct of this process so far has contributed to reducing uncertainty and mitigating legal risk in the financial system, as well as eliminating FX risk and significantly reducing borrowers' liabilities. Amicable settlements allow for a quick resolution of disputes, which is favourable for both parties.

5. The MREL

Banks should continue the process of increasing the share of eligible debt instruments in the MREL requirement in order to cover with them the entire amount for recapitalisation. A suitable share of debt instruments ensures the feasibility of resolution and at the same time limits the possibility of undesirable interactions between macroprudential policy and the MREL requirement.

6. The Long-term Funding Ratio

Potential systemic consequences of the planned introduction of the Long-term Funding Ratio (WFD) should be monitored. Adaptation measures taken by banks in order to fulfil the WFD may relate to not only funding sources, but also lead to changes in the structure of assets and increase exposure to certain kinds of risk, including FX risk. The applicable transition period and monitoring of the WFD introduction process should enable a timely response and modification of the construction of the ratio should unfavourable consequences of a systemic nature be observed.

7. The cooperative banking sector

The cooperative banking sector should intensify their efforts aimed at reversing the negative trend in the number of shareholders. This would help to stabilise the sector's capital base and bolster confidence in cooperative banking, which in the long term would support its development prospects. The high profits achieved by the cooperative banks in recent years and the significant improvement in the resilience of most of these institutions create suitable conditions for them to increase financial incentives for their shareholders, e.g. in the form of dividend payments.

8. Insurance companies

When making their solvency assessments, it would be appropriate for insurance companies to consider the risk stemming from a high share of expected profits included in future premiums (EPIFP) in own funds and double gearing of capital. Own funds obtained by including EPIFP have a limited ability to cover losses, despite belonging to the highest quality category according to the regulations. On the other hand, the lack of deduction of participations in other insurance companies and banks may lead to the transfer of losses between subsidiaries and the parent company.

It is desirable that life insurance companies allocate part of their profits to develop their offer of insurance products enabling the hedging of longevity risk, along the lines of other developed markets. The very good financial condition of life insurance companies resulting from the record high technical result and financial result should prompt these entities to expand their product range to include life annuities. Such insurance would also complement the services available to participants in the voluntary part of the pension system.

9. Investment funds

It would be appropriate to take effective measures aimed at reducing liquidity mismatch between assets and liabilities of open-ended investment funds. It is desirable that this action results in an improved alignment of the funds' asset liquidity profile with the offered redemption frequency. The very good financial situation of the sector's entities and the significant net inflows to the funds should prompt them to increase the share of liquid assets, and to build adequate liquidity buffers in the form of deposits.

1. Macroeconomic and external factors

1.1. External factors

The global economy is expected to grow moderately in 2024-2025, with a substantial divergence in the growth rate between the major economies. The global economy growth dynamics is moderate as a result of high cost of financing, supply shocks from the previous years and geopolitical uncertainty (see Box 1.1). The EU economies also noted an increase in savings rates of households and non-financial corporations and weak activity in manufacturing¹. Compared to the July 2024 projection, the IMF² has not significantly changed its forecasts for global GDP growth in 2024-2025 and has only slightly raised it for the USA and slightly decreased it for the EU, see Table 1.1). The noticeable difference in the rate of growth of the US economy compared to the EU can be explained by: (i) a stronger exposure of the EU to supply shocks, (ii) the progressive decline in competitiveness of the EU economy in relation to the USA and China and (iii) lower potential growth.³ The IMF also forecasts a gradual return of inflation to the target, particularly in the developed economies.

Table 1.1. GDP growth projection for the world's major economies according to the IMF

	World		EU		Germany		USA		China	
	2024	2025	2024	2025	2024	2025	2024	2025	2024	2025
October 2024	3.2%	3.2%	1.1%	1.6%	0.0%	0.8%	2.8%	2.2%	4.8%	4.5%
July 2024	3.2%	3.3%	1.2%	1.8%	0.2%	1.3%	2.6%	1.9%	5.0%	4.5%

Source: World Economic Outlook, IMF, October 2024.

Geopolitical risk and the potential consequences of its materialisation are currently an important source of uncertainty for the European financial sector. This risk affects the global outlook for economic growth and inflation through its negative impact on the supply and prices of the major commodities and the permanence of global supply chains.⁴ In the context of financing conditions, its materialisation would cause heightened volatility in financial markets, higher financing costs, lower appetite for risk among investors and heightened credit risk. Among the factors supporting the materialisation of geopolitical risk, one could point, for example, to the escalation of the war in Ukraine, the conflicts in the Middle East and in Africa, uncertainty about the situation around Taiwan, and the protectionist measures in trade policy of the world's largest economies.

Geopolitical shocks may have a significant impact on all aspects of financial risk: (i) the quality, valuation and price dynamics of assets, (ii) profitability and liquidity of entities (through limited

¹ OECD Economic Outlook, Interim Report September 2024

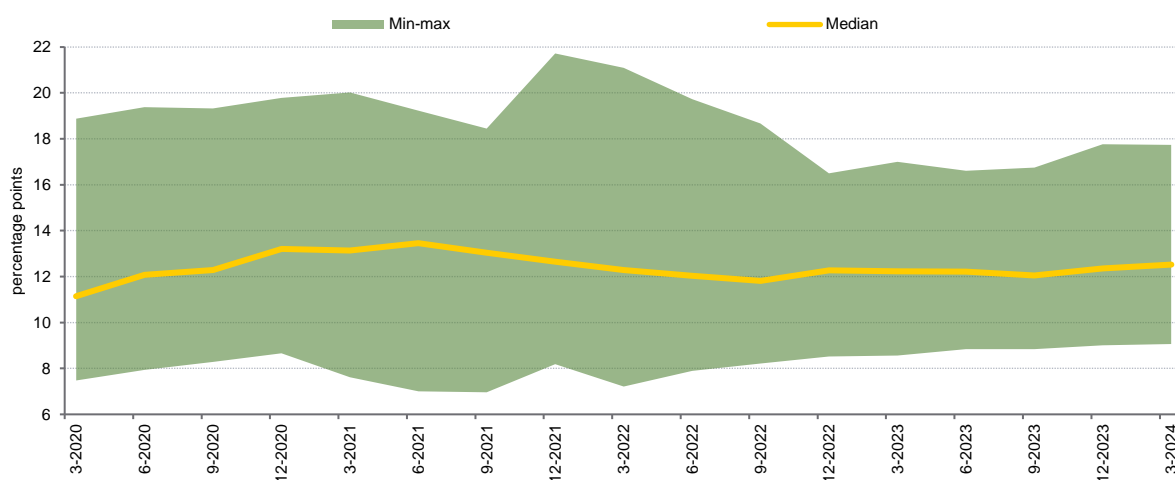
² See World Economic Outlook, IMF, October 2024.

³ See The European Commission report *EU Competitiveness: Looking Ahead* (the so-called Draghi Report), September 2024.

⁴ See Inflation Report, NBP, March 2024

access to or higher costs of financing), and as a result, (iii) their solvency. Financial institutions with direct exposure to these risks, as well as other institutions which the shock may directly affect through a network of financial interconnections or dependence on key infrastructure, are particularly vulnerable to these risks. Currently, one of the consequences of geopolitical risk materialisation is the growing frequency of cyberattacks on financial institutions and financial infrastructure in the EU. However, the ECB's cyber resilience stress test⁵ involving 109 banks in the banking union shows that generally they were prepared to respond and resistant to a simulated cybersecurity incident, which, if successful, could significantly disrupt banks' daily business operations.

Figure 1.1. Capital buffers in EU banks



Note: capital buffers determined as the difference between the ratio of own funds to total risk exposure amount and the minimum capital requirement (8%).

Source: ECB Data Portal

The scale of impact of geopolitical shocks on the Polish economy and the domestic financial system is difficult to estimate. This is due, among other things, to the varied character of the possible shocks, the significant complexity of the supply chains of Polish enterprises, their position in these chains, dependence on financing within capital groups⁶ and other financial ties of the Polish economy with foreign countries.

The European banking sector shows significant resilience, as evidenced by capital surpluses above the minimum requirements remaining persistently high since the Covid-19 pandemic and (see Figure 1.1). At the end of 2024 Q2, the CET1 ratio in the EU was on average 16.1%.⁷ High interest income is the main source of profits. However, it is expected that in the coming quarters the current growth rate of the interest margin will slow down, among other things due to the start of a gradual easing of

⁵ ECB, *ECB concludes cyber resilience stress test*, 26 June 2024

⁶ See Box 2.1 Financial Stability Report, NBP, June 2024.

⁷ EBA Risk Dashboard 2Q2024.

monetary policy in some countries and low economic growth forecasts. Weak credit demand will also negatively impact the interest margin.

Despite the numerous shocks in recent years, the EU banks' asset quality remains high and stable.

In recent quarters, the cost of risk and the share of loans in Stage 2 are stable, while the non-performing loans ratio has been at a record low for over three years (1.9% in 2024 Q2). According to the ECB's analyses⁸, also in (largest) banks in the banking union, directly supervised by the ECB, the quality of their assets measured with the non-performing loans ratio in individual segments of the loan portfolio. However, in the coming quarters a gradual deterioration of the loan portfolio in EU banks can be expected, mainly in case of exposures secured by commercial real estate and corporate loans (among others, as a result of the growing share of bankruptcies). The deterioration of the commercial real estate market and reduced valuations of real estate used as loan collateral may not yet be fully reflected in the levels of loan loss provisions in financial institutions.

Box 1.1. Geopolitical risk – consequences for the financial system and ways to respond

Recent years have seen the growing significance of geopolitical risk for the real economy and the financial system. The major international financial institutions point to the following manifestations of geopolitical risk:⁹

- Russian aggression against Ukraine, the armed conflicts in the Middle East and the escalation of political tensions in regions where hard-to-replace natural resources are present or in states that are the producers of unique materials and means of production (Africa, Asia);
- Rising customs/trade barriers between the main economies;
- Shift in global trade towards “internally” friendly geopolitical blocs. This might lead to increased production costs if the means of production currently bought from geopolitically distant partners are hard to replace, and lower revenues from foreign trade.¹⁰

⁸ EBC, *ECB publishes supervisory banking statistics on significant institutions for the second quarter of 2024*, 23 September 2024

⁹ For the needs of this box, geopolitical risk can be defined as, “the threat, realization, and escalation of adverse events associated with wars, terrorism, and any tensions among states and political actors that affect the peaceful course of international relations.” Based on Caldara, D., Iacoviello, M. (2022), “*Measuring Geopolitical Risk*”, *American Economic Review*, Vol. 112, No 4, April, pp. 1194-1225. In this context, this definition covers the threat of cyberattacks and supply chain disruptions as a result of, for example, the imposition of sanctions or customs tariffs.

¹⁰ See *Deconstructing global trade: the role of geopolitical alignment*, BIS Quarterly Review, September 2024.

The materialisation of geopolitical risk might adversely affect the stability of the financial system via the response of the real economy and financial markets. Four main channels transmitting geopolitical shocks to the financial system may be identified:¹¹

- **real economy** – via lower production as a result of disruptions in supply chains and trade relations, resulting in the unavailability of commodities and other means of production or growth in their prices.¹² This channel might have a strong impact particularly on the EU economies, in which key sectors are dependent on the supply of strategic, hard-to-replace factors of production produced in geopolitically distant states.¹³ Consequently, a weakening of economic growth can be expected. Growth will also be negatively affected by weaker consumer and producer sentiment and tighter financial conditions, including the financing of the growing public debt of EU states. A prolonged period of low economic growth and heightened inflation could have a negative impact on the condition of households and enterprises, and as a result worsen their debt servicing capacity and become a source of credit risk in banks. A lower level of economic activity and slower decline in interest rates might also have a downward effect on prices and liquidity of assets in financial markets.
- **financial ties** – via disruptions of financial flows in the form of credit (including within capital groups of non-financial corporations), foreign direct investment, portfolio investment. As a result, falls in valuation of assets may occur as well as increased volatility in financial markets, including interest rate and exchange rate markets. This would also result in lower valuations of treasury securities held by financial institutions in the trading book, in particular in the case of the earlier-mentioned exacerbation of fiscal imbalances. A threat for certain banks may also result from their cross-border exposures to geopolitically distant states.

¹¹ See: *Geopolitics. Implications for the Economy & Markets*, Citi Research April 2024; Buch C., [Global rifts and financial shifts: supervising banks in an era of geopolitical instability](#), September 2024; Dieckelmann D. (et. al.), *Turbulent times: geopolitical risk and its impact on euro area financial stability* ECB Financial Stability Review, May 2024; Smith S. Pinchetti M., *Geopolitics, International Economics, Macroeconomics, Monetary Policy*, April 2024.

¹² Energy commodities, food, key metals that are important factors of production of investment goods. Most production of metals is geographically concentrated (more than oil), and most metals are not easily substituted.

¹³ Geopolitically distant states are defined as states that vote in the United Nations General Assembly differently from the EU states, see: Bailey, M.A., Strezhnev, A., Voeten, E. (2017), "Estimating Dynamic State Preferences from United Nations Voting Data", *Journal of Conflict Resolution*, Vol. 61(2), pp. 430-456.

- **heightened uncertainty:**
 - the real economy channel leads to a fall in consumer and business confidence and consequently a reduction in household expenditure and decline in investment, dampening economic growth and thus increasing the credit risk of financial institutions;
 - the finance channel leads to higher price volatility and higher risk aversion in financial markets, which means a higher cost of financing economies or reduced access to credit as a result of difficulties in estimating credit risk of potential borrowers or capital outflows (flight to safety).
- **operational risk** – in the case of effective cyberattacks on critical infrastructure, financial institutions or suppliers of their key IT systems.

Geopolitical shocks may have an impact on all the traditional categories of risk in financial institutions: quality of assets, profitability and liquidity (by reducing access to or increasing the cost of sources of finance), and consequently on solvency.

Therefore geopolitical shocks may be a factor triggering the already accumulated risks. Particularly vulnerable to these risk might be financial institutions holding assets with direct and indirect exposure to these risks, as well as other institutions which the shock may affect through a network of financial interconnections or dependence on key infrastructure.

Geopolitical risk is hard to measure and hard to forecast on the basis of historical data. This is because currently domestic economies are very highly integrated into global supply chains, which means that companies are not always able to accurately identify whether the materials or components used in production or for the provision of services originate from geopolitically distant states. There is also a significant integration of financial markets, which increases the number of channels for transmission of global shocks and strengthens their impact on domestic financial institutions. Therefore this risk is in a domain of “unknown unknowns”, which may emerge as a result of political events and are independent of the functioning of the financial system itself. Therefore geopolitical uncertainty cannot be fully reflected in quantitative indicators of market volatility used for statistical modelling of financial markets¹⁴ and in financial institutions’ risk models.

Due to the conditions and characteristics of geopolitical risk, the main way to deal with it is to build resilience at the level of individual entities and the whole financial system. The most important measures should include:

¹⁴ See: IMF Global Financial Stability Report, October 2024.

- **continuous monitoring**, by financial institutions and financial safety net institutions of the development of geopolitical risk and also possible channels of the impact of this risk on a local and global scale.
- **strengthening the resilience to shocks** of financial systems by establishing additional capital requirements and adequate risk management rules:
 - **under macroprudential policy**, the new approach becomes important, with the application of a countercyclical capital buffer at a positive neutral level, regardless of the phase of the financial cycle (nCCyB);
 - **under microprudential policy** (pillar 2), there is the possibility of either recommending an expected level of own funds (P2G) to the bank or mandating compliance with an additional own funds requirement (P2R) due to idiosyncratic risk of the given bank arising from its geographic exposures - both direct and indirect;
- **regular reviews of concentration of exposures** (direct and indirect) to entities from states with high geopolitical risk and also stress tests whose aim is to identify a scenario that might lead to instability of the financial system (reverse stress test).
- **adequate contingency procedures and cash reserves** accumulated in bank branches, which will allow to strengthen the capacity to respond to increased depositor demand for cash.¹⁵ This also concerns adapting ATMs to handle all banknote denominations (including the highest denominations), which would reduce the risk of cash shortages, since the lack of access to cash may itself cause the escalation of the problem;¹⁶
- **maintenance of operational digital resilience** of financial institutions and ensuring the provision of IT services in the financial market (including by third parties), which should be supported by implementation of the DORA Regulation,¹⁷ as well as regular testing by financial

¹⁵ See: Information on increased demand for cash at the beginning of the COVID-19 pandemic and as a result of Russia's armed aggression against Ukraine in 2022. NBP *Report on Cash Circulation in Poland in 2023*.

¹⁶ See: Regulation no. 19/2016 of the Governor of Narodowy Bank Polski of 17 August 2016 on the method and procedure to be used in counting, sorting, packaging and labelling packages of banknotes and coins, and in conducting activities related to the supply of banknotes and coins to the banks (*Official Journal of NBP of 2024 item 7*).

¹⁷ Regulation (EU) 2022/2554 of the European Parliament and of the Council of 14 December 2022 on digital operational resilience for the financial sector and amending Regulations (EC) No 1060/2009, (EU) No 648/2012, (EU) No 600/2014, (EU) No 909/2014 and (EU) 2016/1011 (DORA Regulation).

institutions of contingency plans, also in the case of disruptions to the functioning of critical infrastructure.

The resilience of the whole economy to geopolitical shocks is strengthened by an adequately high level and composition of foreign exchange reserves of the central bank and effective crisis management procedures.

1.2. Macroeconomic situation in Poland

Poland is in a recovery phase, following a period of declining economic activity in 2023. In 2024 Q1 and Q2, GDP rose by 2.1% and 3.2% y/y, respectively, while in Q3 this year the GDP dynamics decreased again to 2.7% y/y.. The rebound of economic activity in this period was supported by consumption, both private and public; however, available partial data for 2024 Q3 indicate that annual household consumption growth declined compared to the first half of the year.

CPI inflation in Poland declined significantly in the first half of 2024 to a level consistent with the inflation target of 2.5% +/-1 percentage point. In 2024 Q3 annual consumer price growth rose once again to 4.5% (5.0% y/y in October 2024), running above the band of deviations from the inflation target. This growth was primarily the result of growth in electricity and natural gas prices due to the partial unfreezing of their tariffs.

According to the November “Inflation and GDP projection”¹⁸, in both the scenarios presented¹⁹, the years 2025-2026 will see an acceleration of economic growth in Poland driven by the greater inflow of EU funds. Increased expenditure financed by EU funds under the EU financial framework for 2021-2027 and the National Reconstruction Plan will translate the most into an upward shift in the investment path. At the same time, consumption expenditure will be gradually restricted by the fading impact of expansionary fiscal policy, which has increased household disposable income. The scale of the forecast recovery will also be limited by the assumption made in the projection that interest rates will remain unchanged over the projection horizon and that the scale of economic recovery abroad will be only moderate. In 2026, GDP growth will decline once again below 3%.

¹⁸ The projection was prepared under the assumption of unchanged NBP interest rates based on the data available until 22 October 2024 (consequently, the reference rate of 5.75% was assumed).

¹⁹ The November projection was prepared in two scenarios, depending on the assumptions regarding the shielding measures impacting on energy prices. In the scenario treated as the central path, the further unfreezing of household electricity and gas prices was assumed from 2025 Q1 (in accordance with the *Act of 23 May 2024 on the energy voucher and on amending certain laws to reduce the prices of electricity, natural gas and system heating*), while in the second scenario it was assumed that in the years 2025-2026 the prices of energy carriers would remain frozen at their current level.

In both scenarios of the November projection, CPI inflation will run above the band of deviations from the inflation target in the coming quarters, and in 2026 it will fall to a level consistent with the NBP inflation target. Consumer price growth in y/y terms will reach a peak in 2025 Q1 on the back of the elevated energy and food price growth – the result of the unfavourable weather conditions in the spring of 2024, which raised the prices of fruit and vegetables. CPI inflation will also be boosted by the staggered impact of rapidly rising wages, having a particularly pronounced effect on service prices. Core inflation will also be boosted by the increase in tariffs for the supply of water and sewage disposal as well as the significant increase in excise tax on tobacco products in March 2025.

Besides the scope of government regulatory action on energy prices, the future economic situation and path of CPI inflation in Poland is largely dependent on the development of economic activity in the euro area, in particular in the German economy. An uncertainty factor for the projection is the extent to which EU funds under the National Reconstruction Plan will be used.

1.3. Financial markets

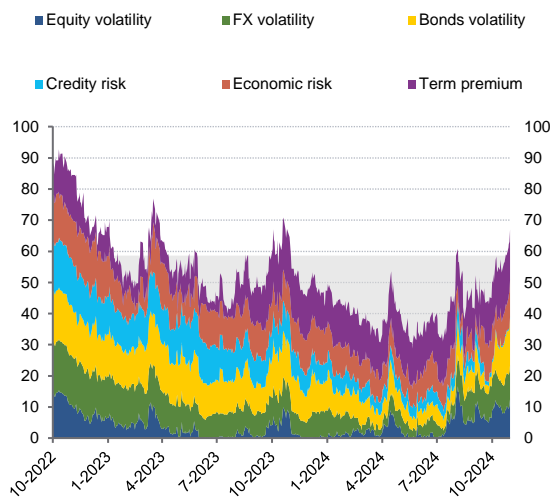
1.3.1. International environment

Investors in the global financial markets became more sensitive to negative macroeconomic news and the uncertainty about monetary policy of major central banks. The risk index in the financial markets increased due to the surge in stock market volatility and, to a lesser extent, bond market and foreign exchange market volatility (see Figure 1.2), while the credit risk component declined moderately. Equity indices experienced a correction at the end of July and at the beginning of August, yet due to the subsequent cooling of the market sentiment, they resumed an upward trend.

At the end of July and the beginning of August 2024, there was a considerable, yet short-lived, increase in volatility, mainly in equity markets. The VIX index increased temporarily to almost 40%, the level last seen at the end of 2021 (see Figure 1.3). The increase recorded in July 2024 was driven by several factors. First, the interest rate hike by the Bank of Japan, amid a moderated approach of the Federal Reserve, contributed to the appreciation of the Japanese yen and a rapid closing of the investment positions benefiting from the previously observed low volatility, including carry trades, where the Japanese yen was the funding currency. This was supported by high leverage previously used by investors, including hedge funds, high concentration of investment positions and low liquidity in the markets, typical of the holiday season. Second, investors became more sensitive to the incoming macroeconomic data, especially data from the US labour market, providing insights into future economic conditions. The short-lived decrease in the probability of the so-called soft-landing in the global economy became the main risk in the adverse scenario considered by market participants, and the response to worse-than-expected data was more pronounced than usually. An additional factor contributing to higher volatility was the geopolitical risk connected with the escalation of the conflict in the Middle East and the approaching presidential elections in the United States. Other volatility measures did not rise to such a significant extent, highlighting higher stabilisation of overall financial markets.

Debt markets started to factor in faster and more pronounced interest rate cuts by major central banks. Initially, this was supported by: (i) declining current inflationary pressure indicators and inflation expectations and (ii) data from the real economy suggesting flagging economic growth. Then, this was accompanied by interest rate cuts by the Fed and the ECB among others. Bond yields, mainly at the short end of the yield curve, declined. The slope of the yield curve in the United States became positive for the first time since 2022. Additional factors, especially in the case of long-term bonds, included the outflow of capital from the equity market towards safe assets in the periods of growing risk aversion and investors' focus on geopolitical risk. Credit risk remained limited, and credit spreads relatively stable, especially during the August increased volatility episode. The credit spreads between 10Y Italian Treasury bonds and German Bunds did not change significantly in net terms although the spreads of French Treasury bonds widened in response to the surprising outcome of the parliamentary elections. The spreads of corporate bonds, of both high and low credit rating, narrowed.

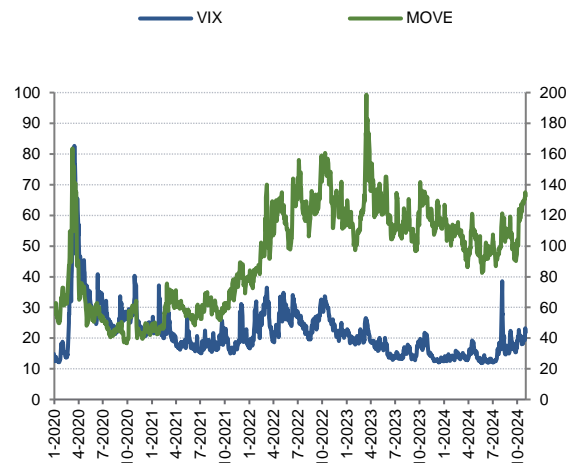
Figure 1.2. Risk index in the global financial markets



Notes: Risk index estimate based on normalised empirical distribution of selected risk categories according to weights defined on the basis of the analysis of the main components: stock market volatility – the VIX index, bond volatility – the MOVE index, currency volatility – the JPM G7 volatility index, economic risk – TED spread, credit risk – the credit spread of corporate bonds; the grey area denotes risk-neutral levels, below 31 points – risk appetite, above 58 points – risk aversion

Source: Bloomberg data, own study based on Morgan Stanley Research “EM Risk Indicator: A Regime-Switching Model Approach”

Figure 1.3. US stock and bond market volatility indices



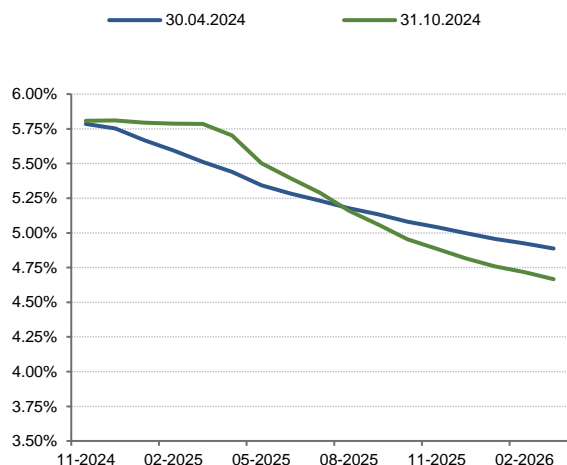
Notes: VIX – S&P500 stock market volatility – left-hand scale, MOVE – US Treasury bonds volatility – right-hand scale

Source: Bloomberg.

1.3.2. Financial market in Poland

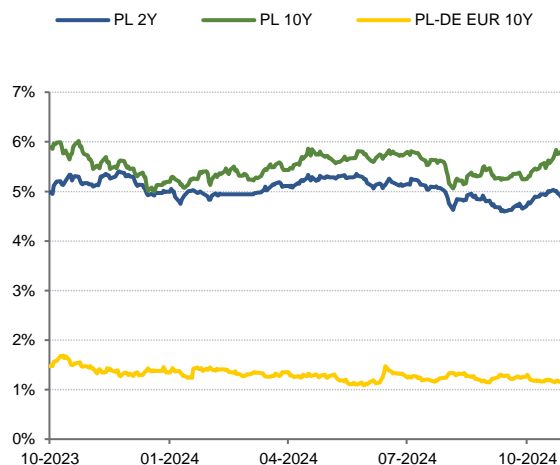
In 2024 Q3, the expected timing of interest rate cuts shifted to 2025 Q3. The FRA rate curve flattened at the short end, showing that the expectations of unchanged interest rates in the coming months became well-established (see Figure 1.4). At the same time, in 2025 Q2 the curve became more negatively sloped.

Figure 1.4. FRA-implied expected WIBOR 1M rate



Source: Bloomberg, own calculations.

Figure 1.5. Yield on Treasury securities and the spread to German bunds



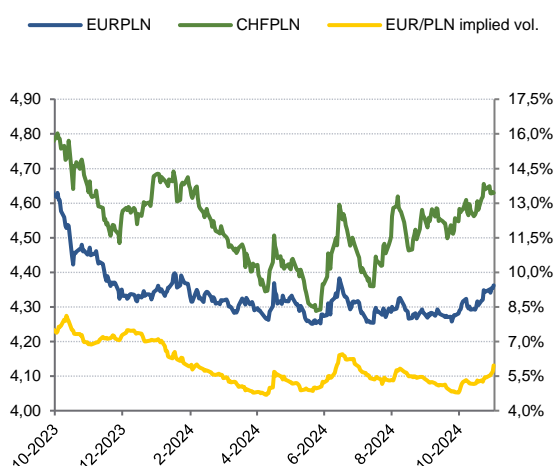
Note: Spread in the yields on Polish bonds denominated in PLN and in EUR to 10Y German Bunds.

Source: Bloomberg.

The yield on short-term Treasury securities declined, and that on long-term ones increased. Part of those changes resulted from global conditions – initially yields declined considerably in response to similar adjustments in the underlying securities markets at the beginning of August (see Figure 1.5), while their subsequent rise in October, especially at the long end of the yield curve, was largely driven by the uncertainty about the outcome of the presidential elections in the United States and the related risk premium in the global financial markets. The credit spread of Poland’s 10Y Eurobonds to German Bunds remained stable, which was supported by the fading of concerns about the fiscal situation. A marked increase in gross borrowing needs in 2025 has met a calm reaction of investors. The debt market saw high demand of investors, including foreign investors restoring their portfolio of domestic Treasury securities.

The zloty exchange rate to the euro was largely stable, fluctuating within a narrow band. Since the last edition of the Report, the EUR/PLN exchange rate fluctuated within the band 4.25-4.38, reaching the highest levels in mid-June in response to the increased geopolitical risk in Europe (parliamentary elections in France) (see Figure 1.6). Despite temporarily growing risk aversion in global terms, the zloty benefited from the growing interest rates disparity between Poland and the euro area and the CEE region countries. The implied volatility of the zloty vis-a-vis the euro oscillated close to pre-pandemic levels, reflecting the foreign exchange risk stabilization.

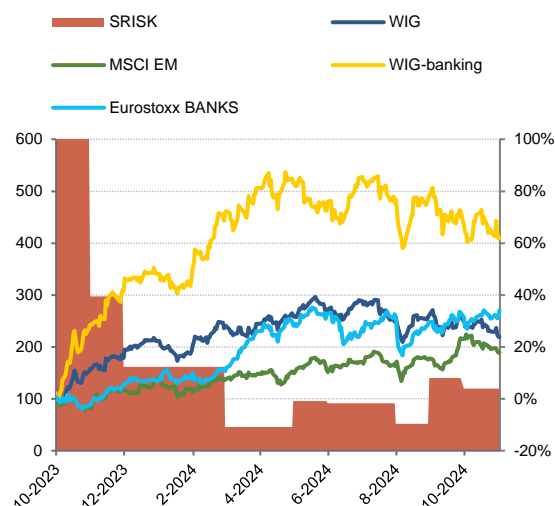
Figure 1.6. Zloty exchange rate against EUR and CHF and implied EUR/PLN volatility



Note: left axis: EUR/PLN and CHF/PLN exchange rate. Right axis: volatility of EUR/PLN exchange rate implied from 3M options.

Source: Bloomberg.

Figure 1.7. Market assessment of undercapitalisation of Polish banks and stock exchange index variations



Note: left axis – market assessment of undercapitalisation of the largest banks based on the SRISK measure with an assumed level of $k=5\%$ (PLN billion), right axis – equity indices: of the emerging markets (MSCI EM), WIG, WIG Banks and Eurostoxx Banks were normalized to 0 at the beginning of October 2023.

Source: Bloomberg.

The domestic equity market experienced a correction after considerable rises in the first half of the year. Having reached the all-time high in May 2024, the WIG index was moving sideways, and then, following global indices, it quickly declined and then recovered somewhat at the beginning of August. However, taking into consideration the scale of the previous rises, the decline was not considerable. The WIG-banking index underwent a stronger correction, although the scale of previous increases was also larger (more information about banks' equities in Chapter 2.9). The market assesses the level of capital of the largest GPW-listed banks as adequate, which is evidenced by the low level of the SRISK measure (see Figure 1.7). In the case of a shock, most banks would not be undercapitalised, and in others the scale of undercapitalisation would be marginal, in total considerably smaller than a year before.

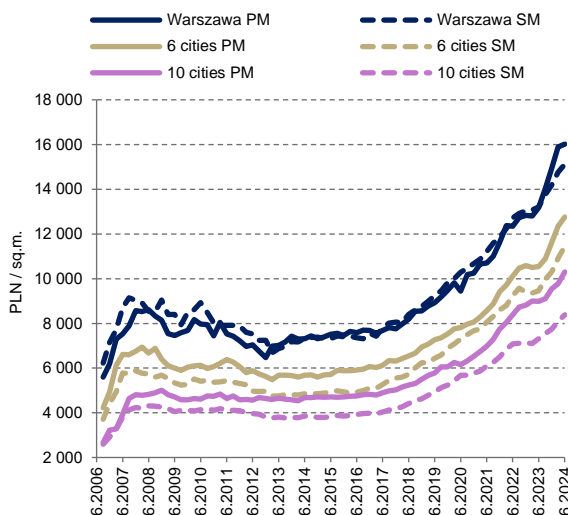
1.4. Real estate market²⁰

In the first half of 2024, the investment activity of developers increased, which boosted the supply of housing construction contracts in the market amid the decline in demand persisting for another

²⁰ More information about the current situation in Poland's real estate market can be found in "Information on home prices and the situation in the residential and commercial real estate market in Poland in 2024 Q2", available at the NBP website: <https://nbp.pl/publikacje/cykliczne-materialy-analityczne-nbp/rynek-nieruchomosci/informacja-kwartalna>

consecutive quarter. Lower demand was the consequence of the expiry of the 2% Safe Credit programme as of the end of 2023 and the decline in the number of new unsubsidised loans. On the other hand, a significant increase in the average wages in the economy had a positive impact on demand. In the first half of 2024, building permits were issued for a total of 144.2 thousand dwellings (+29% y/y), including 102.1 thousand dwellings for sale and rent (+38% y/y). The construction of a total of 122.3 thousand dwellings was started (+43% y/y), including 80.6 thousand for sale and rent (+43% y/y). Costs of housing construction, including labour, lease of machinery, continued to grow, whereas prices of materials stabilised. Primary markets saw nominal average transaction prices of square meter of housing rise in 2024 Q2 in both quarter-on-quarter and year-on-year terms, whereas real transaction prices in relation to CPI and wages rose in all groups of cities, except Warsaw.

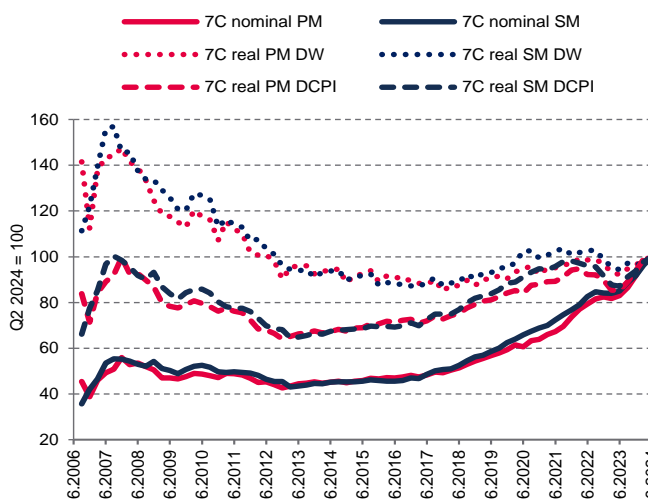
Figure 1.8. Nominal home transaction prices in the primary (PM) and secondary (SM) market in Warsaw, 6 and 10 cities (PLN/sq.m)



Note: 6 cities include Gdańsk, Gdynia, Kraków, Łódź, Poznań and Wrocław, and 10 cities include: Białystok, Bydgoszcz, Katowice, Kielce, Lublin, Olsztyn, Opole, Rzeszów, Szczecin and Zielona Góra.

Source: NBP.

Figure 1.9. Index of transactional, nominal and CPI and wage-deflated home prices in the primary (RP) and secondary (RW) markets in 7 cities (Q2 2024 =100).



Note: 7 cities include Gdańsk, Gdynia, Kraków, Łódź, Poznań, Warsaw and Wrocław; PM – primary market, SM – secondary market, DW – deflated by wages; DCPI – deflated by CPI.

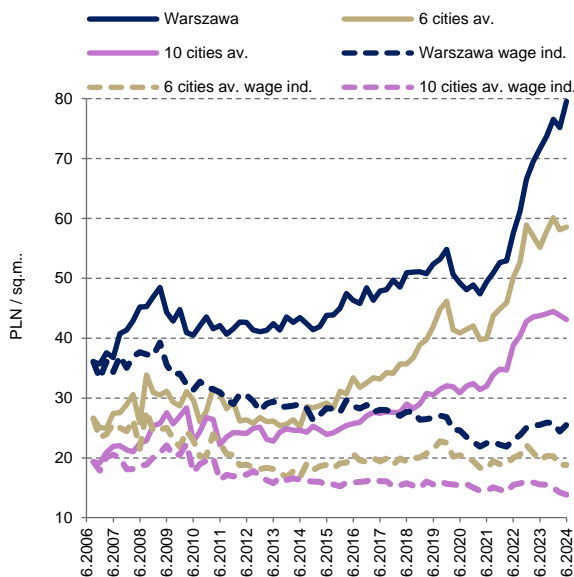
Source: NBP.

The level of average nominal rental rates per sq. m of housing (excluding operating expenses and utility fees) increased in 2024 Q2 in Warsaw and picked up in 6 cities, but at the same time declined slightly in 10 cities. As house prices increased, this slightly reduced rental profitability in large cities. The number of dwellings offered for rent continued to rise as dwellings purchased in the 2020-2023, i.e. in the period when many investors decided to purchase rental housing, were put in operation.²¹ As a result of investors' confidence in the retention of the value of the capital invested in real estate and higher perception of risk of investment in the capital market, rental housing continued to be seen as

²¹ An estimate based on NBP survey.

relatively attractive despite the fact that the estimated cost of residential mortgage servicing exceeded rental income.

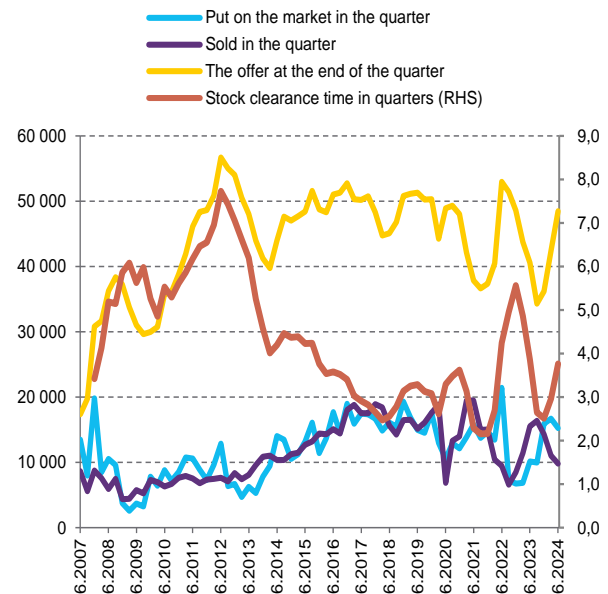
Figure 1.10. Average nominal and real transaction rental rates relative to wages (WAGES) in selected groups of cities in Poland (PLN/sq.m).



Note: 6 cities include Gdańsk, Gdynia, Kraków, Łódź, Poznań and Wrocław, and 10 cities include: Białystok, Bydgoszcz, Katowice, Kielce, Lublin, Olsztyn, Opole, Rzeszów, Szczecin and Zielona Góra.

Source: NBP.

Figure 1.11. Dwellings put on sale, sold and offered in the six largest markets in Poland and sale time of the housing offer

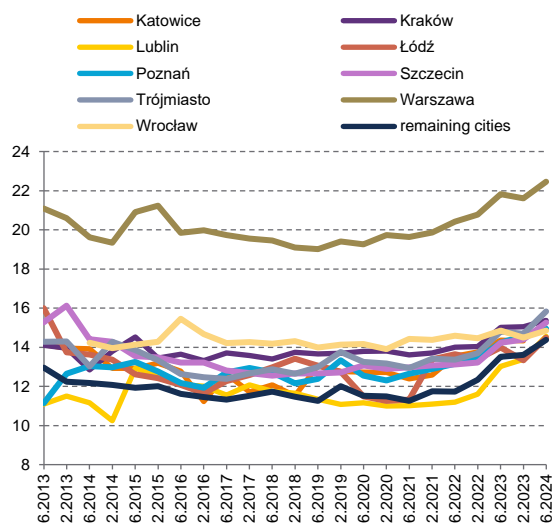


Note: 6 markets include Kraków, Łódź, Poznań, Warsaw, Tri-City and Wrocław

Source: NBP based on JLL.

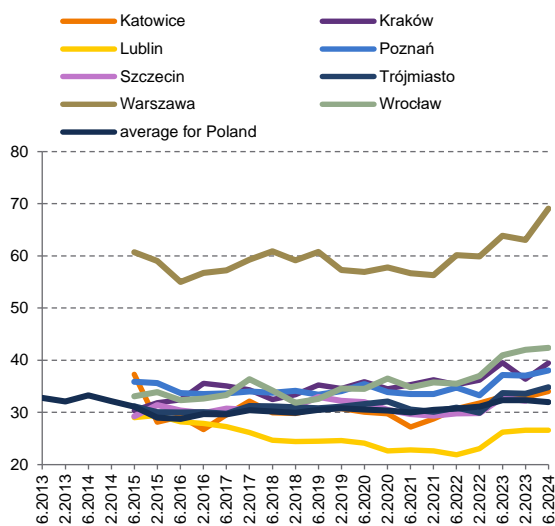
The commercial real estate market returned to the pre-Covid-19 level in 2023 Q3, which was reflected in rising rents. On the other hand, as a result of the **previously observed** development of remote work, the demand for office space is smaller and tenants are more interested in renting smaller space but in buildings with high energy efficiency²² and in good location. Remote work and e-commerce have negatively affected demand for retail space in the largest agglomerations but have boosted demand for warehouse space. As a result, we have seen a falling supply of new office space, stagnation in the supply of new retail space and a constantly growing supply of warehouse space. The office and retail real estate market in Poland has so far seen steady or even falling vacancy rates amid growing rents (see Figure 1.12 and Figure 1.13). At the same time, growing operating expenses of this real estate, especially of older buildings, may be a problem. Since the outbreak of the war in Ukraine, these expenses have been on the rise, which is the result of growing prices of energy, goods, services, higher minimum wages and rising costs of building repair and maintenance.

²² This results from significant rises in energy carrier costs which are to some extent the effect of climate changes and the related climate policy.

Figure 1.12. Transaction rents of A class office space (average rents in EUR/sq.m/month)

Note: other cities include Białystok, Bydgoszcz, Kielce, Olsztyn, Opole, Rzeszów, Zielona Góra.

Source: NBP.

Figure 1.13. Transaction rents of retail space with an area of 100-500 sq.m located in shopping malls (average rents in EUR/sq.m/month)

Source: NBP.

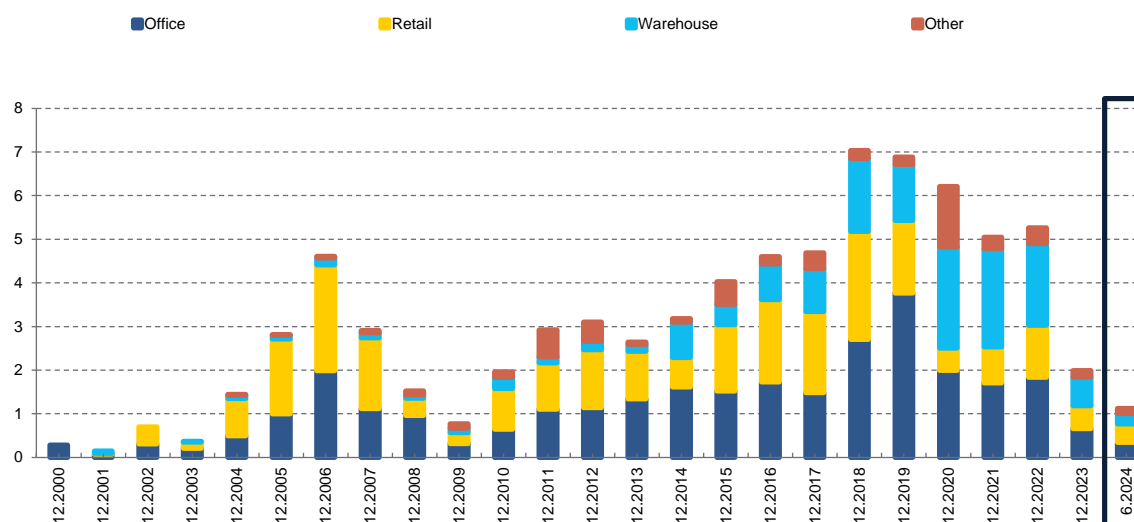
The value of the domestic commercial real estate is still relatively low and the exposure of Polish banks to this sector insignificant compared to their assets. The value of loans for the purchase or construction of commercial real estate (housing, office, commercial, warehouse and other real estate) granted by banks in Poland amounted to PLN 69 billion at the end of 2024 Q2 (see Figure 2.18). It should be noted that commercial real estate is also financed by investment funds, insurance companies and private investors. The exposure of Polish financial institutions, such as investment funds and insurance companies, in commercial real estate is insignificant compared to their assets. In contrast, the exposure of foreign investors in the form of foreign direct investment is considerable. The exposure of foreign investors to financing real estate activities (section L of PKD) for 2023 amounted to PLN 123 billion²³, where shares and other forms of equity accounted for PLN 55.4 billion, and intra-group loans for PLN 67.8 billion.

In the first half of 2024, as in the whole of 2023, the volume of commercial real estate transactions was insignificant, which was largely a consequence of subdued activity of foreign companies. The

²³ See NBP <https://nbp.pl/publikacje/cykliczne-materialy-analityczne-nbp/inwestycje-bezposrednie-zagraniczne/>

estimated value of sale transactions in Poland involving commercial real estate purchased for investment purposes,²⁴ i.e. for rent, amounted to EUR 1 billion (see Figure 1.14).²⁵

Figure 1.14. The value of investment in commercial real estate in particular years (in EUR billion)



Note: Data for 2024 concern the first half of the year

Source: Comparables.pl

Subdued activity of foreign investors is largely a result of growing costs of financing in the euro area.²⁶ This reduces profitability of rental of buildings and, consequently, their market value. Capitalisation rates (annual rent-to-price ratio) of prime commercial real estate in Europe started to rise along with general interest rate increases, which means that with relatively stable rents prices and appraisals of such real estate are on the decline. As appraisals become more realistic the risk of a decline in the value of loan collateral is materialising. The emergence of new, more profitable investment

²⁴ Based on data from Comparables.pl. The investments concern the sale of an entire operating company which leases a building and derives revenue from that. Such transactions occur between: 1/ a developer who has commercialised the building and an investor to whom the building is sold, or 2/ two investors. Yet, it should be emphasised that these data do not make it possible to draw conclusions about foreign investors' share in the ownership of commercial real estate in Poland as there is a large stock of real estate built by the owners for their own purposes, even decades ago. Moreover, some domestic investors establish a development company to build and manage rental real estate for them. Such transactions are not accounted for in the investment statistics.

²⁵ Warehouse space accounted for approximately 33.2% of the value of the transactions, office space for 33.1% and retail space for 26.5%.

²⁶ See ECB Financial Stability Review, November 2023.

opportunities is another factor negatively affecting investors' condition. Interest on German Bunds, which used to be negative in real terms for many years, has risen, coming close to the capitalisation rates of prime commercial real estate in Europe. In these conditions, the number of investors ready to purchase new or repurchase the existing buildings is shrinking, which may put further downward pressure on real estate prices in the European Union.

There are no major tensions in the Polish real estate market – indeed, one can see small increases in rental rates for office and retail real estate. The share of vacancies is moderate and the volume of bank loans financing this segment of the real estate market, classified as in stage 2 and 3, is also stable. Yet, the worse situation of and prospects for foreign investors may also negatively affect their activity in the Polish commercial real estate market.

The trends observed in the commercial real estate market in Poland and Europe suggest that the location, quality and energy efficiency of the building will be of key importance for investment demand and price developments in the future. This is of particular importance for the office real estate market with buildings built both before the year 2000 and modern office buildings put on the market in recent years. Older buildings will require significant modernization in order to compete for tenants with modern buildings with high energy efficiency, or they will be demolished.

2. Banking sector situation

2.1. Lending

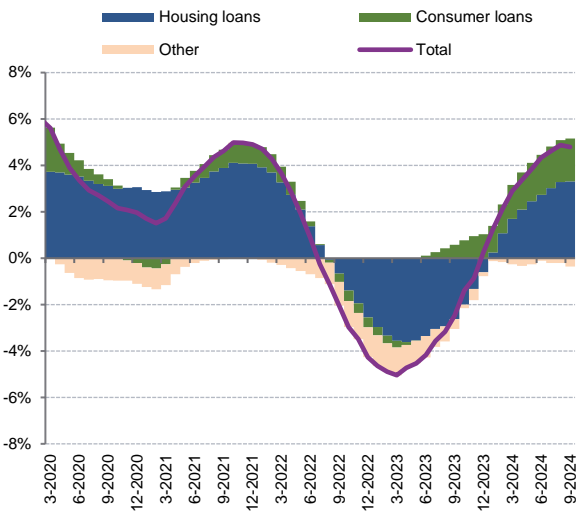
Since the beginning of 2024, lending to the non-financial sector has been slowly recovering (see Figure 2.1). The recovery has mainly resulted from an increase in loans to households. The growth rate of corporate loans is positive but remains moderate, which is related to the still weakened corporate demand for bank financing.

Figure 2.1. Growth rate of loans to the non-financial sector, y/y



Note: The figure presents transactional changes.
Source: NBP.

Figure 2.2. Growth rate of loans to households and contribution of its main components²⁷, y/y



Note: The figure presents transactional changes. The *Other* category covers, among others, credit card loans, loans to individual entrepreneurs and individual farmers.
Source: NBP.

Housing loans

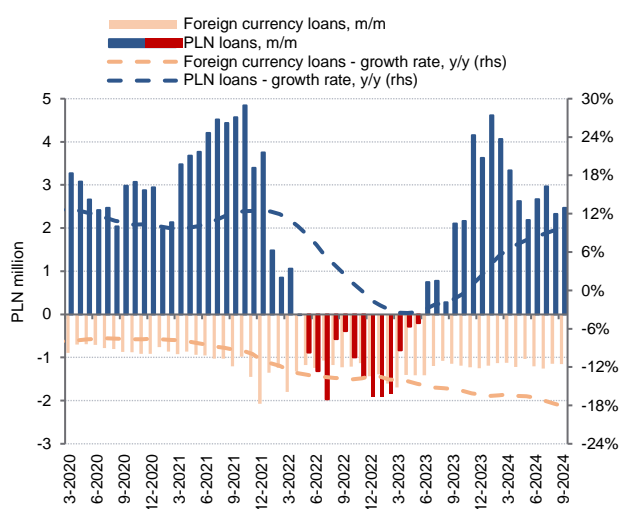
In the first half of this year, as a result of the termination of the “2% Safe Mortgage” programme, the number of loan applications dropped. However, it was significantly higher than a year earlier, when low demand for housing loans in a high interest rate environment was further subdued by the fact that potential borrowers postponed the submission of their applications in anticipation of entry into force of the subsidy programme²⁸ (see Figure 2.4). Housing loans demand in the first three quarters of this year was fostered by: (i) low unemployment, (ii) lower interest rates than in 2023 and (iii) rising real wages.

²⁷ The contribution of a category of loan to the growth rate of housing loans is the product of the growth rate of a given category and its total share in loans to households (relatively constant over a number of years)

²⁸ The call for applications under the programme started in July 2023.

The annual growth rate of PLN housing loans was gradually increasing (see Figure 2.3). This was, among others, the result of the continued signing of agreements under the “2% Safe Mortgage” programme²⁹ in the first quarter of 2024 and the aforementioned low reference base from the first half of 2023. Moreover, average loan amounts were record high, driven by rising real estate prices and good creditworthiness of borrowers. The growth rate of housing loans continued to be constrained by overpayments and early loan repayments. The extent of this phenomenon in the first half of 2024 was similar to that in the corresponding period of 2023.³⁰

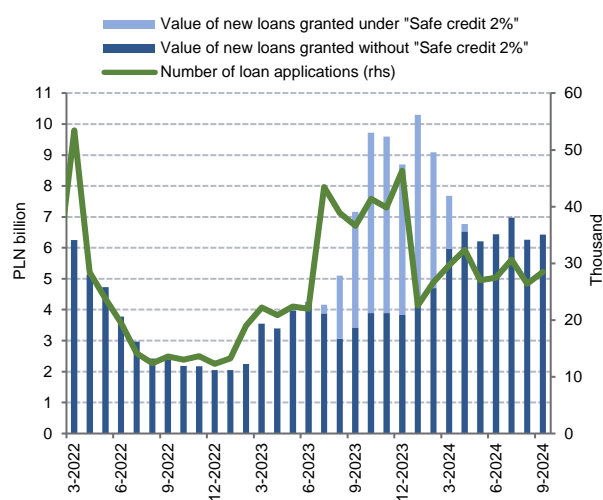
Figure 2.3. Growth rate (y/y) and changes (m/m) in the value of housing loans on the balance sheet of the banking sector



Note: The figure presents transactional changes.

Source: NBP

Figure 2.4. Value of new housing loans and number of loan applications (in a given month)



Source: Estimates based on BIK and ZBP data.

In the subsequent quarters, the annual growth rate of housing loans can be expected to stabilise at a level similar to the current one. It will be driven by anticipated further increases in real wages and housing prices and the potential release of demand frozen in anticipation of the next subsidy programme - “#naStart” [“#for the Start”].³¹ On the other hand, the high reference base and a tighter lending policy of banks may contribute to the weakening of the annual growth rate of this credit category.

²⁹ The call for applications in the programme was suspended on 31 December 2023 but they were still processed in the first months of 2024.

³⁰ The increased scale of early repayment and overpayment of loans has been observed since 2022 when interest rates rose significantly and the so-called loan repayment holidays were introduced.

³¹ The lack of certainty regarding the launch of a new subsidy programme and its potential commencement date may encourage borrowers to take out a loan without support.

Consumer loans

Households' interest in taking out consumer loans and the annual rate of their growth continued to increase (see Figure 2.2). The growth in demand was supported by the demand for durable goods and a favourable economic situation of households. Cash loans were increasing, including loans for amounts over 50,000 zlotys growing at a fastest pace. However, their share in new consumer loans (taking into account the indexation of the PLN 50,000 threshold by wage increases) has not changed significantly compared to the second half of 2023 (see Chapter 2.2, Figure 2.24). The deferred payment service (*Buy Now, Pay Later*) was gaining popularity, which fostered the growth of instalment loans.

The projected further growth in individual consumption and real wages, although no longer as fast as in the first half of 2024, should drive consumer loan demand in the coming quarters and thus support further lending growth in this segment. Easing of banks' lending policy (following many quarters of tightening) may also have a positive impact on consumers' propensity to borrow.

Corporate loans

The annual growth rate of corporate credit remained low but positive (see Figure 2.5). This was associated with the continued moderate growth rate of investment loans amid very slowly growing loans on current account and working capital loans. In the second and third quarter of 2024, banks observed an increased demand for loans, not only among large enterprises, as in the first quarter, but also among SMEs.

The use of loans by companies remains low, which mainly results from structural factors, i.e. their financing of operations primarily from their own resources³² and foreign debt. The value of corporate liabilities to foreign entities is higher than to Polish banks and accounts for almost 40% of total corporate indebtedness³³ (see Figure 2.7). Liabilities to non-financial sector related entities (intercompany loans) account for almost 60% of corporate foreign liabilities (see Figure 2.8).

After many quarters of tightening lending standards, in the first half of 2024 banks eased their policy towards large enterprises, while continuing to tighten it for SMEs. According to the enterprises themselves, the availability of bank financing in the first half of this year was noticeably lower than throughout 2023, although it stood above the long-term average and clearly improved in the third quarter of 2024.³⁴ There are no signs of excessive credit supply limitations in this segment. The results

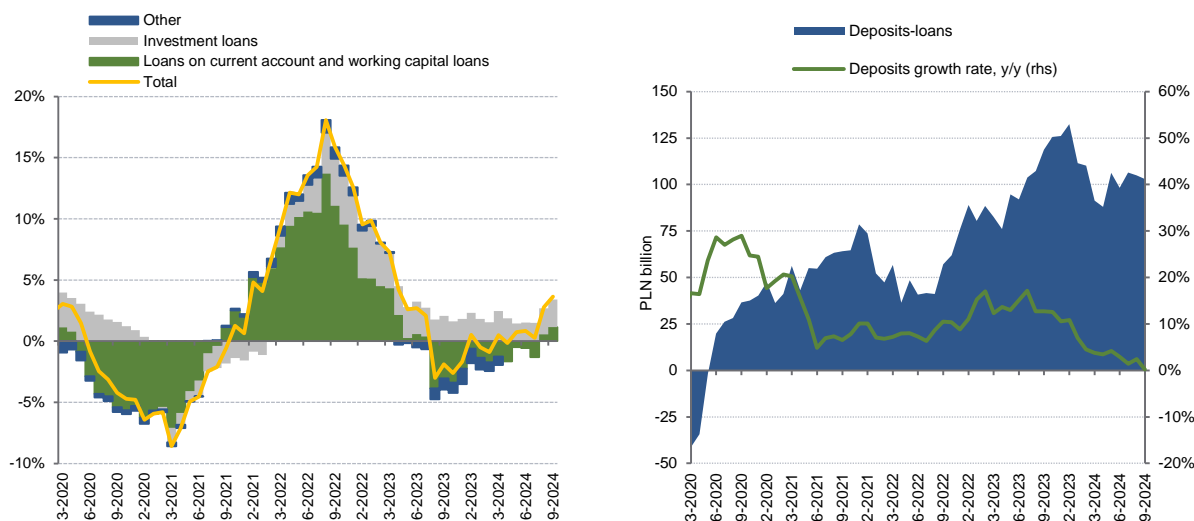
³² For more on the reasons of the low corporate demand for loans, see Box 2.1. in: "Financial System Stability Report, June 2024", NBP, available at www.nbp.pl.

³³ Defined as the total of loans and borrowings and debt securities.

³⁴ See „Szybki Monitoring NBP. Analiza sytuacji sektora przedsiębiorstw” [“NBP Quick Monitoring Survey. Economic Climate in the enterprise sector”], June and October 2024, available at www.nbp.pl.

of the questionnaire surveys indicate that only a small group of SMEs³⁵ perceive the access to finance as a significant problem in their business (6% of respondents, which corresponds to the EU average).³⁶

Figure 2.5. Growth rate of corporate loans and **Figure 2.6.** Corporate deposits contribution of its main components, y/y



Note: The figure presents transactional changes. The *Investment loans* category includes, among others, loans for investments and real estate purchases. The *Other* category includes, among others, car loans, loans for securities purchases.

Source: NBP.

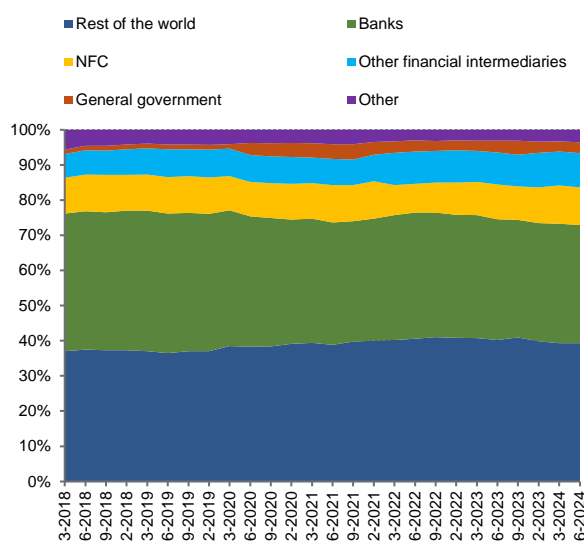
In the subsequent quarters, a further rise in the growth rate of investment loans can be expected while the growth rate of loans on current account and working capital loans should stabilise at a low but positive level. Investment projects implemented with the use of EU funds (including financing of energy transition investments and others provided for in the National Resilience and Recovery Plan) will require co-financing. Demand for long-term lending should therefore increase unless the need for additional funding is fulfilled by enterprises using the considerable amounts deposited in bank accounts (see Figure 2.6). Own funds continue to remain the prevailing source of funding for new investments among enterprises planning to launch the projects.³⁷ The accelerating decrease of corporate inventories³⁸ and the need to rebuild them may, on the other hand, drive an increase in demand for current loans.

³⁵ SME businesses are generally the most vulnerable to credit rationing.

³⁶ "Survey on the access to finance of enterprises (SAFE). Analytical Report 2023", European Commission, December 2023, available at: https://single-market-economy.ec.europa.eu/access-finance/data-and-surveys-safe_en

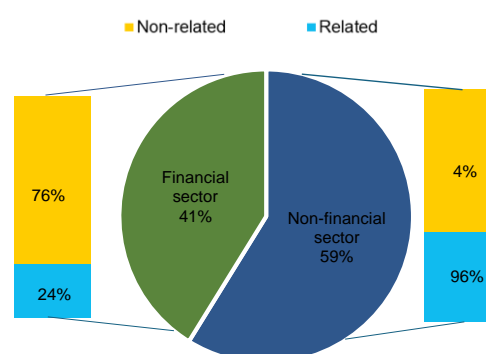
³⁷ See above.

³⁸ In the period of expected rapid growth of prices and tensions in the supply chains in 2022, enterprises were increasing their inventories intensively, co-financing their purchases with short-term loans.

Figure 2.7. Structure of corporate debt, by creditor

Notes: Corporate indebtedness consists of debt securities as well as loans and borrowings (excluding trade credit). The *Other financial intermediaries* category includes ancillary financial institutions and captive and lending institutions; the *Other* category includes insurance institutions, pension funds, non-money market mutual funds as well as households and non-profit institutions supporting households.

Source: NBP Financial Accounts.

Figure 2.8. Structure of foreign corporate debt, by creditor sector and capital relation at the end of the second quarter of 2024

Notes: Corporate indebtedness consists of debt securities as well as loans and borrowings (excluding trade credit).

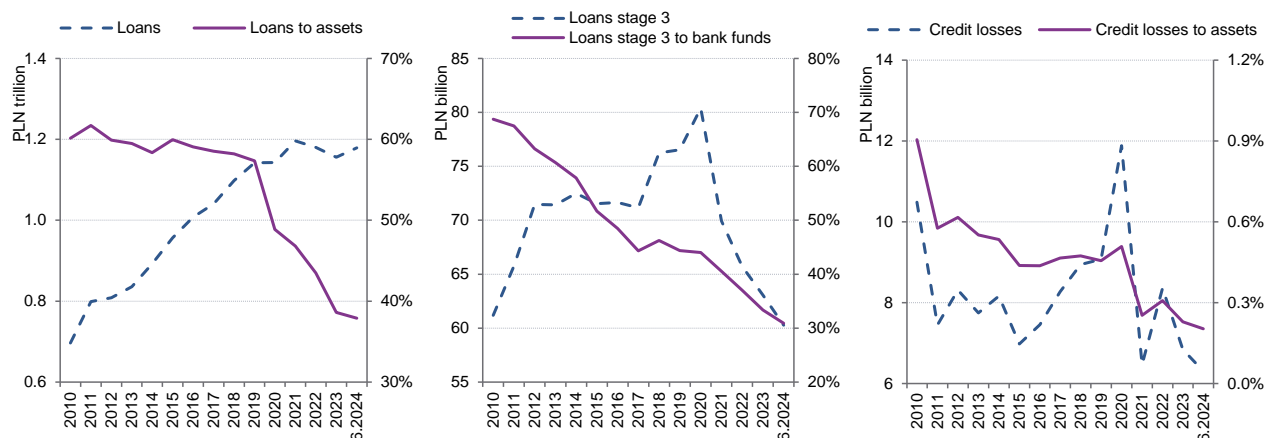
Source: NBP Balance of Payments Statistics.

In the nearest period, the development of lending to the non-financial sector should be fostered by the following factors: (i) the anticipated improvement in the economic situation, (ii) the expected decrease in the cost of lending, and (iii) the banks' favourable liquidity and equity position. Stimulating the demand for lending seems of key importance to lending growth. Supply factors should not be a barrier unless adverse external conditions occur, e.g. of a legal and regulatory nature, which could reduce banks' propensity and capacity to lend.

2.2. Credit risk

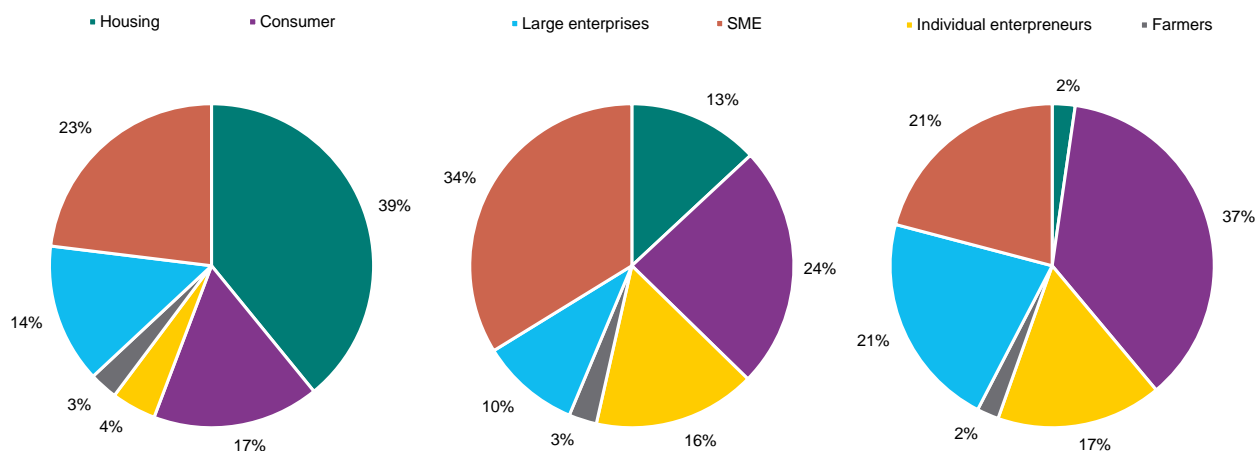
The extent of exposure of the banking sector to credit risk has clearly decreased in recent years. On the one hand, the share of loans in the banking sector assets decreased due to the rapid growth of the portfolio of securities during the COVID-19 pandemic (see Figure 2.9, left-hand panel). On the other hand, after a temporary increase in the years 2017-2020, a rapid decline in impaired loans and loan losses occurred, among others, due to improvement in the quality of debt servicing and the general standing of borrowers (see Figure 2.9, right-hand panel). At the same time, the capacity to absorb credit losses by banks has increased significantly due to the continued growth of the banking sector's capital base (see Figure 2.9, middle panel).

Figure 2.9. Loan portfolio for non-financial sector compared to banking sector assets (left-hand panel), impaired loans compared to banks' own funds (middle panel) and credit losses compared to bank assets (right-hand panel)



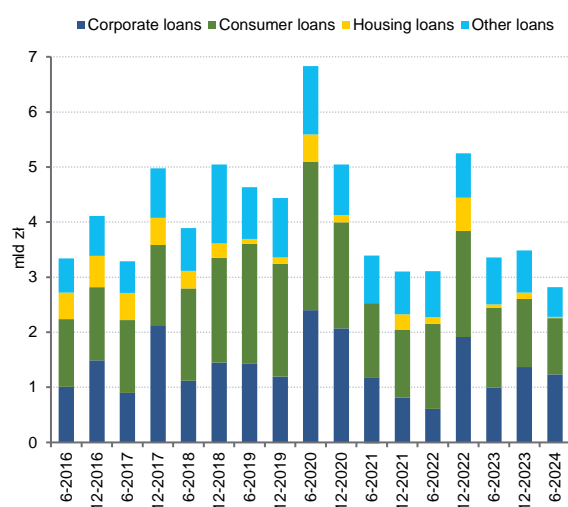
Source: NBP.

Figure 2.10. Structure of the loan portfolio (left-hand panel), impaired loans (middle panel) and credit losses (right-hand panel) at the end of June 2024



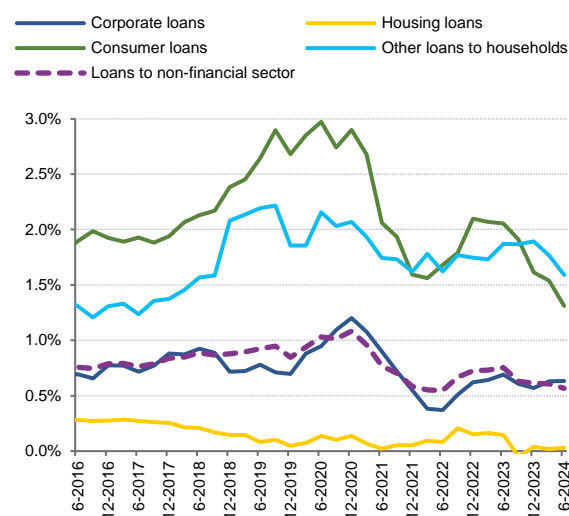
Source: NBP.

The level of credit risk varies between individual loan categories. Consumer loans and loans to individual entrepreneurs generate the highest credit losses, despite a relatively lower share of loans to the non-financial sector in the portfolio (see Figure 2.10). It results from the risk profile of these borrowers, nevertheless, credit losses are offset by the high margins earned on these loans. On the other hand, housing loans, as a category with the highest share in the portfolio of loans to the non-financial sector, contribute to the balance of impaired loans as well as to the balance of credit losses to a limited extent.

Figure 2.11. Loan losses in loans to non-financial sector

Notes: Data on credit losses in housing loans excluding the impact of the costs of provisions for legal risks of FX loans recognised as credit losses by several banks; the *Other* category means loans to households other than housing and consumer loans and loans to non-commercial institutions operating for households.

Source: NBP.

Figure 2.12. Loan losses to net loans ratio

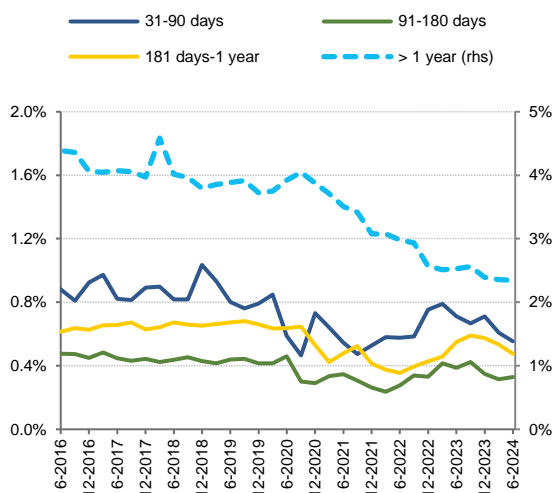
Notes: Annualised data; the category *Other for HH* designates loans to households other than housing and consumer loans – mainly loans to individual entrepreneurs and farmers.

Source: NBP.

It is not expected that the impact of the September 2024 flooding on the credit risk of the banking sector should be significant. The estimated share of loans granted to businesses registered in the disaster-affected areas does not exceed 4% of the portfolio, while not all lenders were affected by the floods. At the same time, borrowers affected by the floods who have taken out housing loans will be able to benefit from the Borrower Support Fund.³⁹

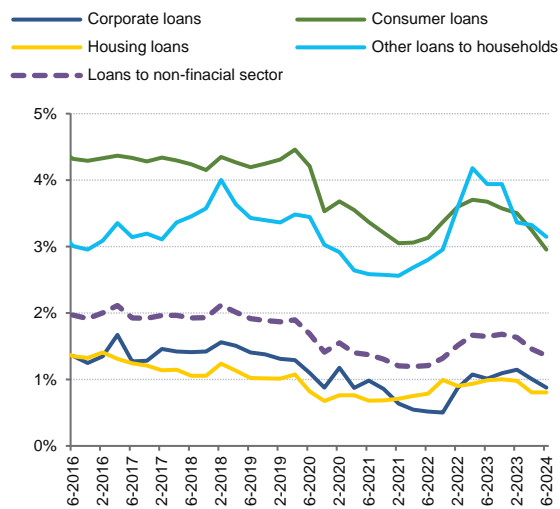
³⁹ See The Act of 1 October 2024 on amending the Act on special solutions related to the elimination of impacts from floods and certain other acts (Journal of Laws 2024, item 1473). Pursuant to the Act, non-refundable assistance in the form of repayment of housing loan instalments by the Borrower Support Fund for 12 months is available to borrowers whose single-family house or dwelling has been damaged or destroyed as a result of flooding and who have lost, even temporarily, the use of that house or part thereof or that dwelling. On the other hand, the borrowers who have completely lost their source of income as a result of the floods and were employed or conducted business activity in the area of the municipality or towns affected by the floods are entitled to receive non-refundable assistance in the form of repayment of housing loan instalments by the Borrower Support Fund for three months.

Figure 2.13. Shares of loans in arrears to the non-financial sector in individual arrears classes



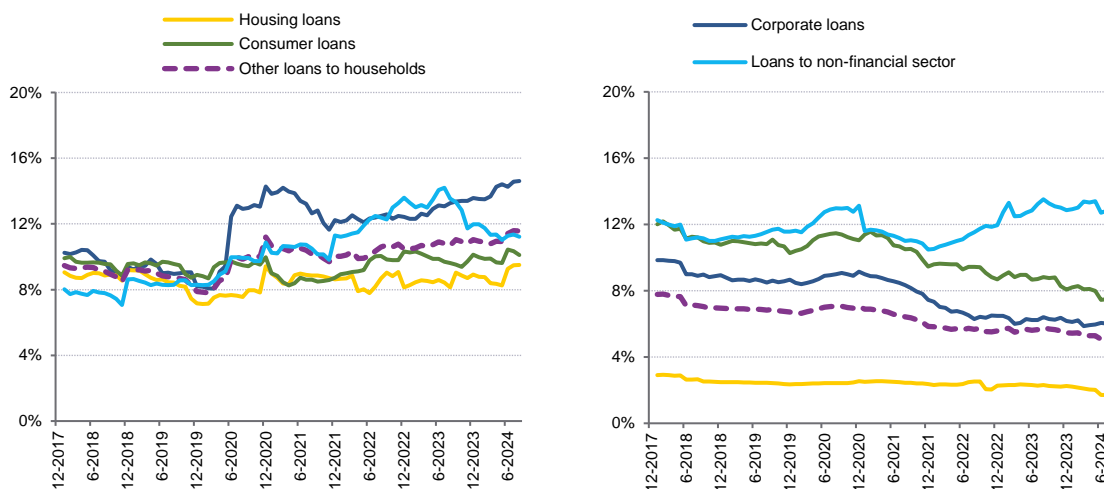
Source: NBP.

Figure 2.14. Shares of short and medium-term arrears (31 days to 1 year) for individual types of loans to the non-financial sector



Source: NBP.

Figure 2.15. Share of Stage 2 loans (left-hand panel) and impaired (Stage 3) loans (right-hand panel) in individual types of loans to the non-financial sector



Notes: Data for the entire banking sector, for banks applying IAS/IFRS – share of Stage 2 and Stage 3 loans, for banks applying PAS – watch-list loans and impaired loans, respectively.

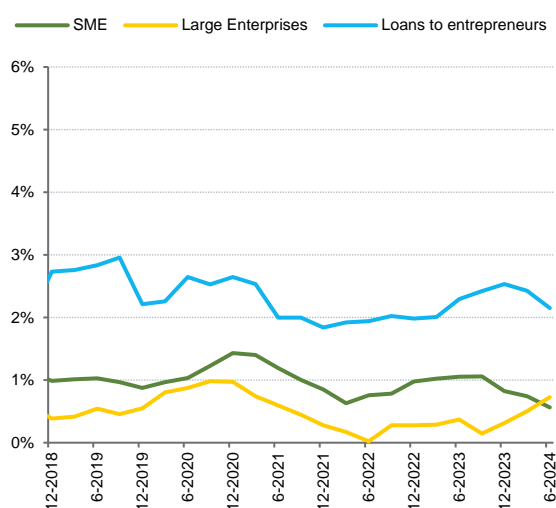
Source: NBP.

Loans to business entities

In the first half of 2024, the majority of credit risk indicators stabilised at a relatively low level. Loans to large enterprises were the exception, where credit losses in relation to net loans increased slightly, still remaining noticeably lower than before the pandemic (see Figure 2.11, Figure 2.12 and Figure 2.16). Short and medium-term delays in loan repayment decreased and were also lower than before the pandemic (see Figure 2.13 and Figure 2.14).

The ratio of impaired loans (Stage 3) remained stable, while the ratio of Stage 2 loans increased slightly (see Figure 2.15). This was related to the reclassification to Stage 2 of relatively large exposures to entities in the sections of information and communication, transport and trade. On the contrary, risk assessment improved further in the construction and real estate sectors as well as in industries particularly affected by the pandemic, i.e. tourism, hotels and restaurants.

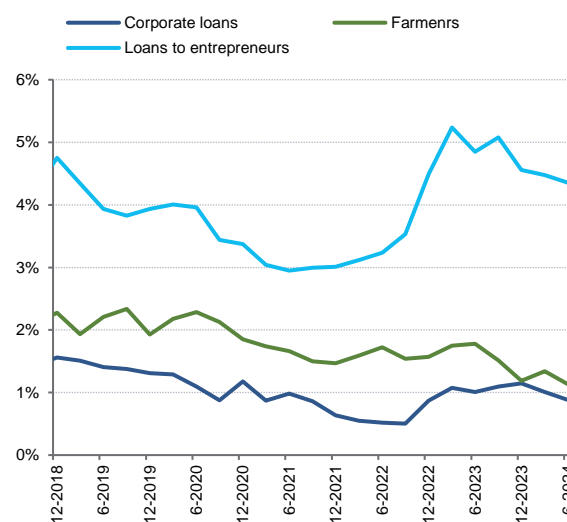
Figure 2.16. Ratio of loan losses to net loans in corporate loans



Notes: Annualised data.

Source: NBP

Figure 2.17. Percentage of loans to business entities in arrears of up to 1 year



Source: NBP.

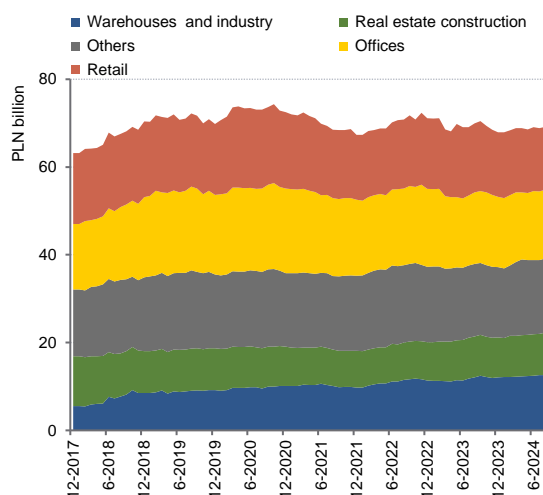
The level of credit risk is heavily dependent on the size of business entities. The smallest ones, including primarily individual entrepreneurs, remain particularly sensitive to the economic downturn. This segment shows the highest ratio of credit losses to net loans, despite the recently recorded decline, and the highest share of loans delayed in repayment up to 1 year (see Figure 2.16 and Figure 2.17).

Banks' involvement in lending to commercial real estate remained at a constant and relatively low level while credit risk indicators improved slightly by the end of 2023 (see Figure 2.18 and Figure 2.19). The share of loans with a significant increase in credit risk (Stage 2) has decreased since the pandemic, although it stood at a level elevated by several percentage points compared to the pre-pandemic period. At the same time, it did not differ from the average for other entities.

The expected acceleration in economic growth and investment activity, along with the improved indicators of the general business climate, indicate a likely stabilisation of credit risk at the current,

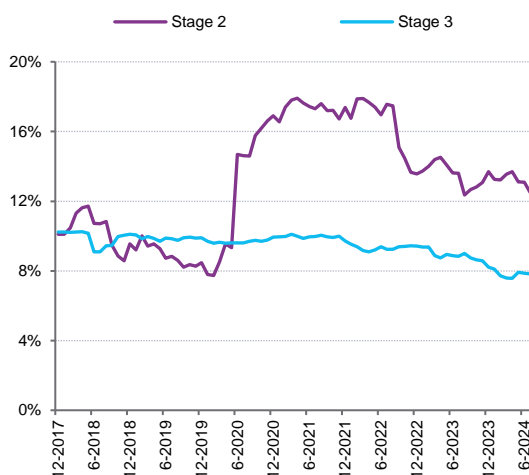
relatively low level.⁴⁰ A further decline in the profitability of enterprises may be a risk factor, among others, due to rising employment costs.⁴¹

Figure 2.18. Loans for commercial real estate



Source: NBP.

Figure 2.19. CRE loan ratio in Stages 2 and 3



Notes: Data for the entire banking sector, for banks applying IAS/IFRS – share of Stage 2 and Stage 3 loans, for banks applying PAS – watch-list loans and impaired loans, respectively.

Source: NBP.

Loans to households

Amid the good labour market situation and existence of assistance programmes for borrowers, the majority of the housing loan risk indicators in the first eight months of 2024 remained low. The following factors had a particularly favourable impact on those indicators: (i) very low unemployment level, (ii) high wage growth, and (iii) loan repayment holidays. Credit losses and loan arrears were close to historical lows (see Figure 2.11, Figure 2.12 and Figure 2.14). They were partly underestimated by the accounting treatment of provisions for the costs of legal risk of FX loans⁴², but losses would also be low if this factor was excluded. The impaired loan ratio decreased slightly, while the Stage 2 loan ratio increased in the first eight months of 2024 (see Figure 2.15). However, the changes in both indicators mainly resulted from extraordinary events, such as modifications to the eligibility criteria for Stage

⁴⁰ Business tendency in manufacturing, construction, trade and services 2000-2024 (September 2024), Statistics Poland <https://stat.gov.pl/en/topics/business-tendency/business-tendency/>

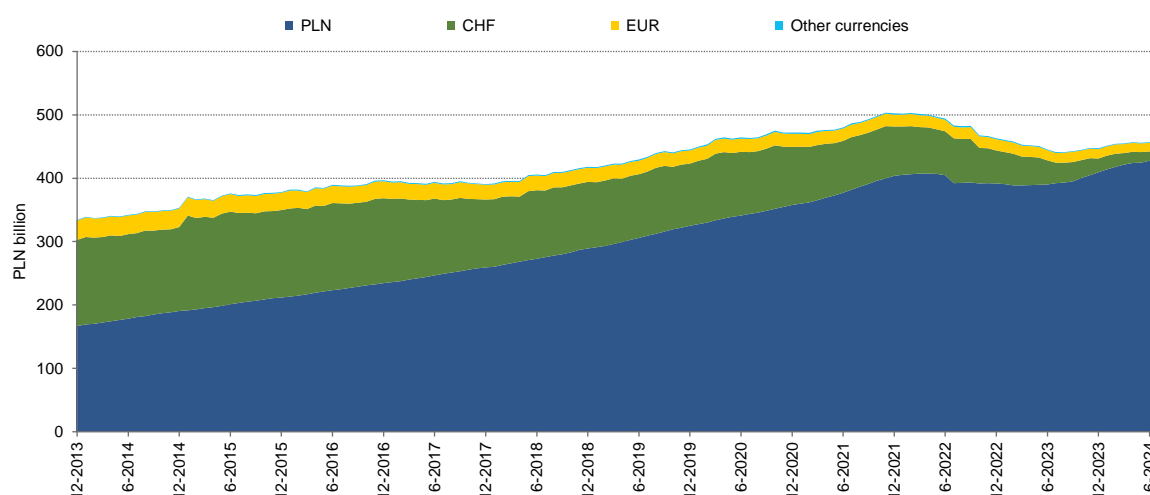
⁴¹ See „Szybki Monitoring NBP. Analiza sytuacji sektora przedsiębiorstw” [NBP Quick Monitoring Survey. Economic climate in the enterprise sector], issues: October 2024 and earlier, available at www.nbp.pl.

⁴² In the case of loans on the balance sheet (not fully repaid), almost all banks write off the costs of legal risk from the so-called gross carrying amount, consequently reducing the basis for the credit risk provision.

2 and Stage 3 loans introduced by some banks in the first half of 2024. After excluding the impact of these modifications, the changes in the values of both indicators would be insignificant.

The fast decline in the value of FX loans means that their impact on credit losses and values of loans in arrears of the overall housing loan portfolio was insignificant. The decline in the value of the portfolio (see Figure 2.20) was mainly the result of the aforementioned practice of writing off the costs of legal risk from the gross carrying amount of these loans. To a lesser extent, it was also affected by factors such as: (i) instalment repayments, (ii) loan currency conversion in connection with out-of-court settlements and (iii) removal from the balance sheet following the legally valid annulment of loan agreements. The share of Swiss franc loans in housing loans at the end of August 2024, measured by the gross carrying amount, fell to 3.1% while the share of loans in all foreign currencies – to 6.2%.

Figure 2.20. Portfolio of housing loans by loan currency



Notes: Gross carrying amount.

Source: NBP.

A relatively limited number of borrowers took advantage of the new loan repayment holiday scheme, which may reflect their relatively favourable financial standing. The 2024 programme⁴³ introduced an income threshold, however, it was quite low (the ratio of loan servicing costs to income above 30%, with this restriction not applying to a family with at least three children). At the same time, large loans were excluded from the scheme (value of the loan upon origination exceeding 1.2 million zlotys). The share of loans covered by loan repayment holidays in zloty housing loans at the end of July

⁴³ See the Act of 12 April 2024 amending the Act on the Support to Borrowers who have taken out a housing loan and are in financial difficulties and the Act on Crowdfunding for Business Ventures and Support to Borrowers (Journal of Laws 2024, item 696).

2024 amounted to 7%.⁴⁴ In connection with the relatively high benefits of participating in the scheme, the low participation rate may confirm a good financial standing of housing loan borrowers (low share of borrowers meeting the income criterion or lack of interest in taking advantage of the scheme despite exceeding the income threshold).

The significant relaxing of the criteria for access to the assistance from the Borrower Support Fund introduced in May 2024 will have a positive impact on credit risk indicators, but in the longer term may increase banks' costs due to contributions to the fund. Following the implementation of the modified scheme⁴⁵, there was an increase in the amounts of new assistance from the Borrower Support Fund, after which the value of new support decreased to a level similar to that before changes in the scheme (see Figure 2.21). However, a stronger increase may occur starting from early 2025 with the end of the loan repayment holiday programme and the indexation of income thresholds once in three years.⁴⁶

Housing loans granted in the years 2022-2023 and in the first half of 2024 were exposed to a lower risk upon origination than loans extended in the previous few years. In the case of these loans, the creditworthiness was assessed at significantly higher interest rates than loans of the previous few years and, for loans granted from April 2022 to February 2023 – also with higher income buffers and tighter

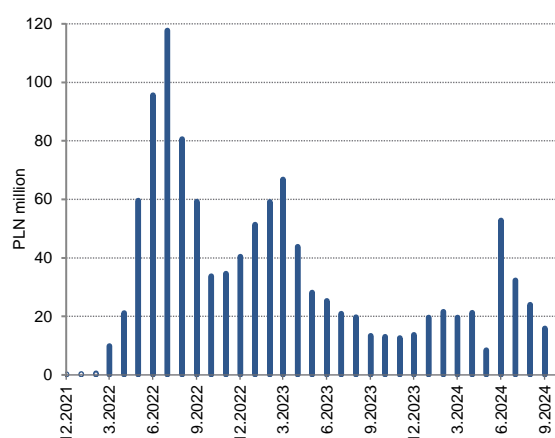
⁴⁴ NBP estimate based on BIK data available at <https://media.bik.pl/informacje-prasowe/839383/wzrostowy-trend-sprzedazy-na-ryнку-kredytow-bankowych>.

⁴⁵ The modification of the criteria and terms on obtaining the support from the Borrower Support Fund was implemented by the same act as the new loan repayment holiday (see footnote 39). The Act provided for, among others, a reduction of the minimum threshold for the housing loan instalment-to-income ratio used in one of the criteria for receiving the support – from 50% to 40%. Additionally, the maximum threshold for income less housing loan servicing costs, used in another criterion has been increased from 2 to 2.5 times of the income eligibility threshold for social assistance benefits. At the same time, the maximum amounts of assistance were increased and the repayment term of the support granted was extended. Moreover, following the flood disaster in September 2024, a possibility of assistance from the Borrower Support Fund was introduced for housing loan borrowers affected – see the footnote 39).

⁴⁶ Income thresholds in the Borrower Support Fund are determined as 2.5 times the income criterion for social assistance benefits. The latter criterion is subject to indexation once every 3 years. The next indexation will take place on 1 January 2025 and, taking into account high inflation in previous years, it will be high – the income criterion will increase by 30% for single-person households and by 37% for multi-person households (see Regulation of the Council of Ministers of 12 July 2024 on verified income criteria and amounts of cash benefits from social assistance, Journal of Laws 2024, item 1044).

lending standards.⁴⁷ The lower level of risk is also indicated by a significantly smaller share of loans granted (outside the “2% Safe Mortgage” programme) for high amounts in relation to borrowers' income (exceeding the equivalent of 5-year and 6-year incomes – see Figure 2.22).

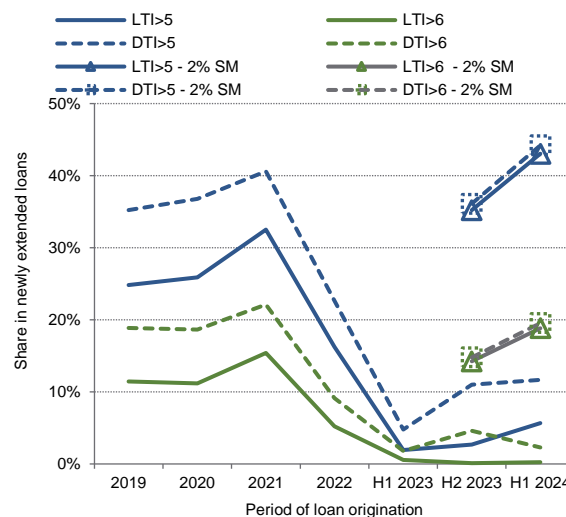
Figure 2.21. Value of support under the Borrower Support Fund granted in individual months of 2022-2024



Notes: The period before December 2021 has been omitted for clarity of the figure. The average monthly value of support in this period was very low and amounted to 0.5 million zlotys.

Source: BGK.

Figure 2.22. Shares of new housing loans with high LTI and DTI ratios



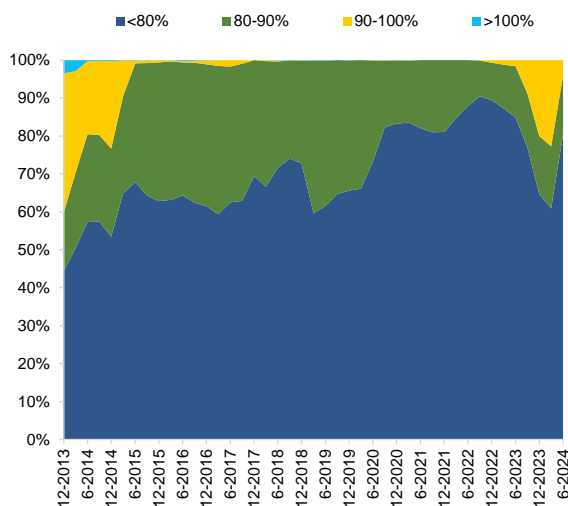
Note: Data for the second half of 2023 and the first half of 2024 separately for the “2% Safe Mortgage” (lines ending with a tag) and the aggregate without 2% Safe Mortgage (lines).

Source: NBP estimates based on UKNF data.

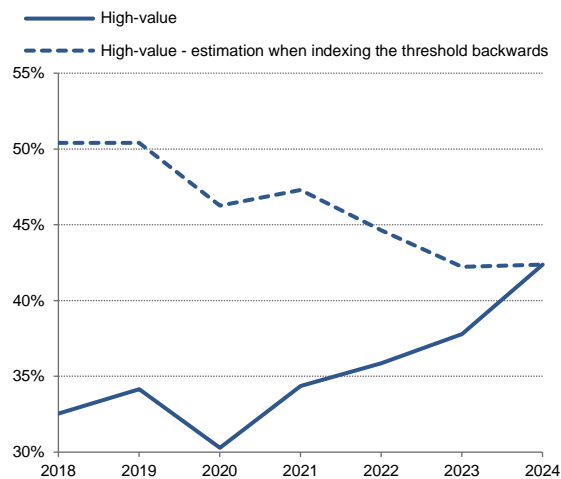
The relatively high LTI, DTI and LTV ratios of loans granted under the “2% Safe Mortgage” programme do not indicate increased credit risk. These loans account for 43% of the loans granted from mid-2023 to June 2024. Their risk is mitigated by subsidising a significant part of the instalments by the BGK during the first 10-year repayment period. On the other hand, at the end of the 10-year period, due to the equal principal amount instalments (decreasing total instalment) used in these loans, a substantial part of the loan principal amount will already be repaid and *ceteris paribus* – instalments and the current burden on household budgets will not increase significantly.⁴⁸ On the other hand, the missing downpayment (up to the amount of 20% of expenditure on real estate purchase) of high LTV loans (see Figure 2.23) is guaranteed by BGK. Upon the virtual termination of the “2% Safe Mortgage” in the second quarter of 2024, the share of loans with high LTV ratios decreased significantly (see Figure 2.23).

⁴⁷ See: “Stanowisko UKNF skierowane do Prezesów Zarządów Banków oraz Dyrektorów oddziałów instytucji kredytowych ws. działań mających na celu ograniczenie poziomu ryzyka kredytowego” [“Position of the UKNF addressed to Presidents of the Management Boards and directors of branches of credit institutions on measures aimed at reducing the level of credit risk”], available at www.knf.gov.pl.

⁴⁸ See previous edition of the Report, pp. 35-36.

Figure 2.23. Distribution of LTV values of new housing loans

Source: NBP estimates based on UKNF data.

Figure 2.24. Share of high-value loans in new consumer loans in 2018-2023 and in the first half of 2024

Note: High-value consumer loans – loans with the value above 50,000 zlotys as upon origination. A dashed line for loans extended before 2024, the share assuming indexation of the 50 thousand zloty threshold adjusted (downward) by the wage growth index.

Source: NBP estimates based on Statistics Poland and UKNF data.

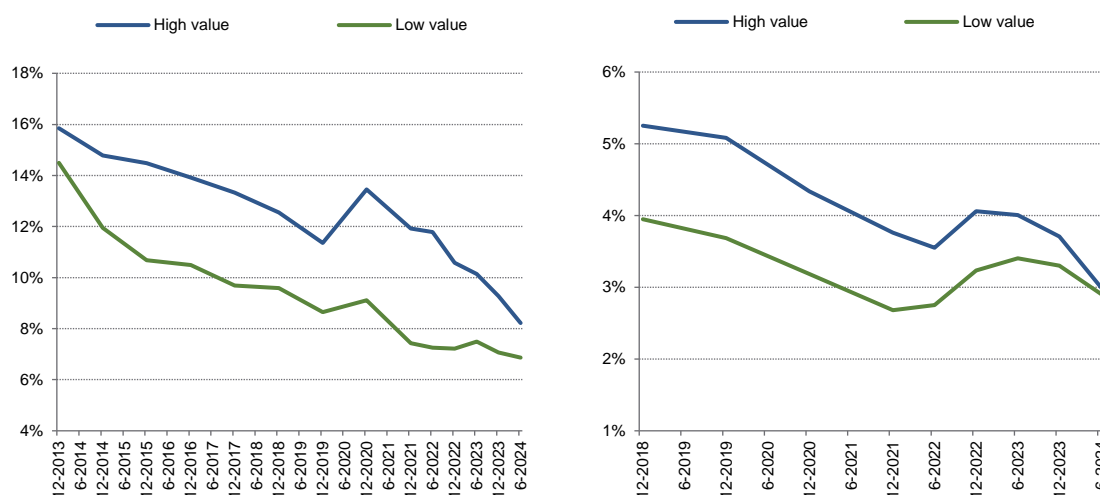
Credit risk indicators in consumer loans decreased in the first eight months of 2024. In addition to the favourable labour market situation, the contributing factors included, in particular, the tightening of banks' lending policy in this market segment over the last two years. Credit losses and the share of loans with short and medium-term arrears have decreased (see Figure 2.11, Figure 2.12 and Figure 2.14). A slight decline was also recorded in the impaired loan ratio and the Stage 2 loan ratio, excluding the impact of changes in the methodology for qualifying loans for Stage 2 (see Figure 2.15).

Reduction in risk indicators occurred in both high-value consumer loans and other loans. At the same time, the difference between the risk ratios of both types of loans decreased significantly (see Figure 2.25). The share of high-value loans in new consumer loans has not changed significantly (taking into account the indexation of the 50 thousand zloty threshold by wage growth) (see Figure 2.24).

Household credit risk ratios should stabilise at the current low levels. This will be supported by the expected improvement in the economic conditions, good situation on the labour market (high nominal and real wage growth, only a slight projected increase in unemployment), the banks' prudent lending policy in earlier periods and a possibility for borrowers to take advantage of the Borrower Support Fund assistance in repaying housing loans, including support on special terms for those affected by the September 2024 floods. The announced end of the loan repayment holiday scheme will have an adverse effect on the loan repayment burden. However, the impact on loan servicing capacity is not expected to be considerable due to high wage growth since the loan origination date. Loan servicing problems

are likely to affect mainly that group of borrowers of 2020-2021 who took out loans at the limit of their creditworthiness and whose income growth since then has been significantly lower than inflation.⁴⁹

Figure 2.25. Impaired loan ratios (left-hand panel) and shares of loans with short and medium-term arrears (right-hand panel) broken down by high-value loans and other loans



Source: NBP estimates based on UKNF data.

2.3. Risk related to the banking sector exposure to Treasury bonds

The share of the government bond portfolio in banks' assets has decreased, but remains at a high level. At the end of the second quarter of 2024, the book value of Treasury bonds and State Treasury-guaranteed bonds amounted to 573 billion zlotys (see Figure 2.26), decreasing compared to the previous quarter.

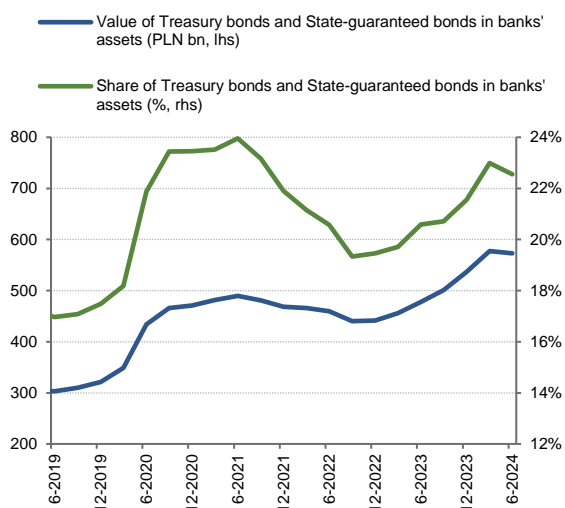
Changes in the value of the market-priced bond portfolio were largely driven by changes in bond prices. In the second quarter of 2024, prices of Treasury bonds have declined mostly at the long end of the yield curve, affecting the decline in the value of the portfolio. At the same time, the duration of the banks' Treasury bond portfolio increased, illustrating its higher sensitivity to changes in market interest rates (see Figure 2.27).

An increase in the value of the portfolio not marked to market limited the scale of decline in the total value of the bond portfolio. This portfolio, measured by amortised purchase cost, has increased its value by 41 billion zlotys in the first half of 2024. Its overall effect can be attributed to the increase in banks' exposure to Treasury securities, as this part of the banks' portfolio is in principle insensitive to current market changes in bond valuation. The portfolio of bonds not marked to market now accounts for more than 57% of the banking sector's total portfolio of Treasury securities and its share is growing (see Figure 2.27). While an increase in the share of this portfolio reduces the banks' day-to-day

⁴⁹ See "Financial Stability Report. December 2022" (pp.30-31) and "Financial Stability Report. December 2023" (pp.28-31).

sensitivity to market interest rate changes, it can exacerbate the risk of loss if the securities included in it have to be sold suddenly. However, it is significantly limited due to the possibility of using Treasury securities in conditional transactions, including with NBP.

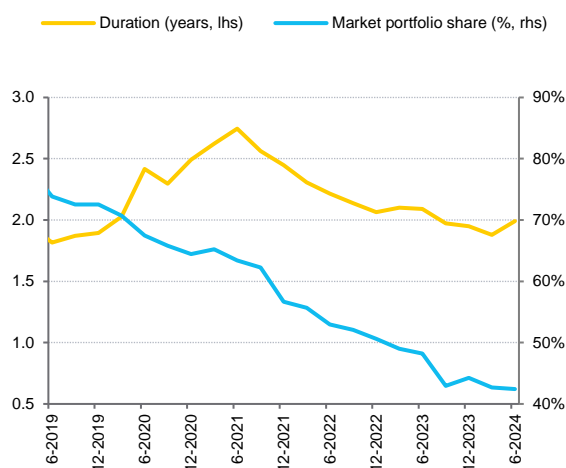
Figure 2.26. Share of Treasury bonds and State Treasury-guaranteed bonds in banking sector's assets



Note: Banking sector excluding BGK.

Source: NBP.

Figure 2.27. Duration and the share of Treasury bonds and State Treasury-guaranteed bonds portfolio marked to market



Note: Banking sector excluding BGK.

Source: NBP.

2.4. Legal risk associated with the portfolio of FX housing loans

Legal risk associated with the FX housing loans portfolio remains an important source of burden for banks, although its size will gradually decrease. Widespread challenging of the clauses in loan contracts by borrowers, on the ground of consumer protection law, resulted in very high costs for banks (see Figure 2.28 and Figure 2.29). However, the significant amount of provisions created to date means that banks are much better prepared to cover this risk today than they were a few years ago when the first judgements were made.

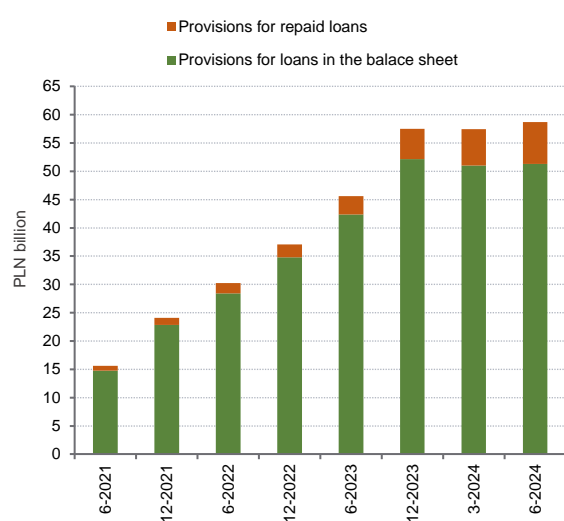
For a long time, the line of jurisprudence of the courts has been unequivocally favourable for customers. In April 2024, the full Civil Chamber of the Supreme Court of the Republic of Poland answered questions raised three years earlier by the First President of the Supreme Court, addressing fundamental issues regarding FX housing loan contracts. The resolution of the Supreme Court has the force of a legal principle, but it mostly only confirmed the existing interpretation of consumer protection legislation. However, the Supreme Court ruled out the possibility for the parties to an invalidated loan agreement to claim interest or other remuneration for the use of the money in the period of undue

performance (such a possibility seemed to be open to borrowers after the CJEU ruling of 2023⁵⁰). At the same time, both parties may claim interest for arrears.

Borrowers' interest in challenging the clauses of FX housing loan contracts in courts is not decreasing (see Figure 2.30). At present, approx. 165 thousand cases involving FX housing loans are pending in courts. The majority of cases are still in the first-instance stage and only a small part had been concluded by a final judgement (approx. 25 thousand cases) or an amicable out-of-court settlement with the bank. Banks also see an increase in interest in challenging the clauses of contracts related to loans that have already been repaid.

In parallel, the process of settlements with borrowers is taking place at the initiative of banks (see Figure 2.30). Compared to the lengthy litigation proceedings, reaching a settlement significantly reduces the time it takes to resolve an issue and is a faster accessible and more predictable option. By mid-2024, banks and borrowers signed approx. 110 thousand amicable out-of-court settlements concerning FX housing loans.

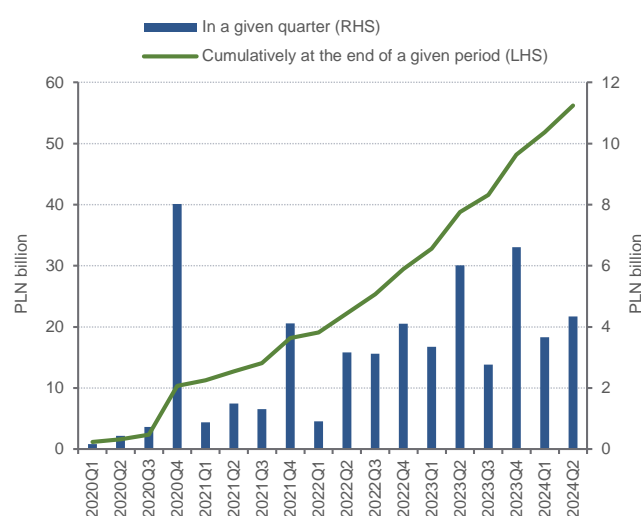
Figure 2.28. Provisions* for FX housing loans (cumulative at month-end)



*Charges to provisions less release of provisions.

Source: NBP estimates based on UKNF data.

Figure 2.29. Legal risk provisions and other costs of legal risk in eight listed banks



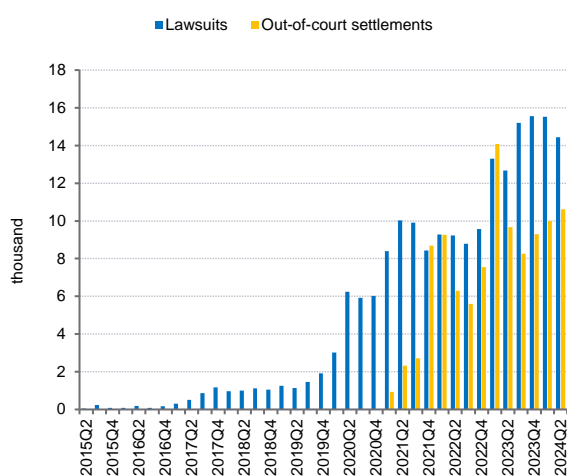
Source: Reports of GPW-listed banks.

Over the last few years, banks have created substantial provisions for legal risk of FX housing loans. By June 2024, the total value of legal risk provisions amounted to approx. PLN 80-85 bn, of which approx. PLN 25 bn has already been used to cover costs of final court judgements and settlements concluded with borrowers. Since the end of 2023, the growth rate of the provisions has slowed down significantly (see Figure 2.28) due to their partial release, i.e. using for covering the effects of settlements concluded and judgements becoming final. Nevertheless, banks still continue to bear costs of new

⁵⁰ CJEU C-520/21 (06.23).

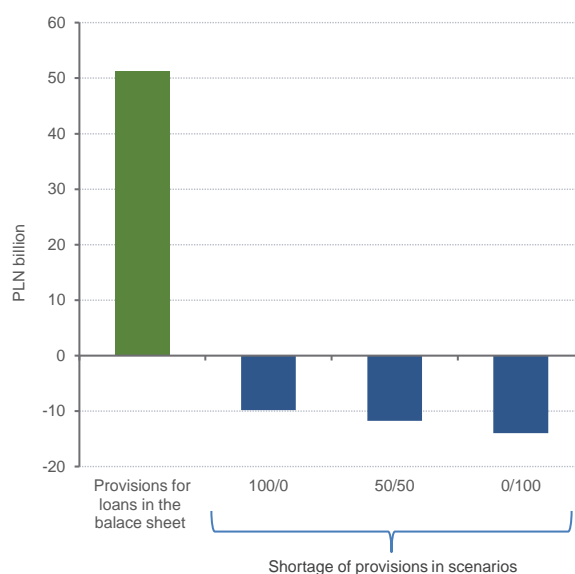
charges to provisions (see Figure 2.29). In the forthcoming years, a gradual increase in the use of provisions can be expected as subsequent judgements become final and settlements are reached with successive borrowers. However, unless reforms leading to a real acceleration of court proceedings take place, as announced by the Representative of the Minister of Justice for the Protection of Consumer Rights⁵¹, this process will be spread over a long period of time due to overloaded courts with a very high number of cases.

Figure 2.30. Quarterly number of new lawsuits concerning FX housing loans and out-of-court settlements



Source: NBP estimates based on UKNF data.

Figure 2.31. Provisions for legal risk and the estimated shortfall for scenarios of the proportion of out-of-court settlements vs litigation (Swiss franc loans)



Notes: It is assumed that all loan agreements, active at the end of June 2024, are covered by settlements / annulments at court. The simulation was carried out at the Swiss franc exchange rate of 30 June 2024 (4.4813). Estimates do not include interest for delay in payment and litigation costs.

Source: NBP estimates based on UKNF data and own assumptions.

The relatively high scale of costs incurred by the banks so far allows to expect that the provisioning process should slow down in the near future. Approx. 80 thousand borrowers who had been granted Swiss franc-denominated loans, have not initiated any action to reduce their debt either via out-of-court settlement with a bank or annulment of the contract at court. These loans account for approximately one-third of the value of outstanding loans. In accordance with IFRS rules, banks create provisions to cover expected costs, which means that some of this debt should already be covered by provisions.

⁵¹ One of the tasks assigned to the Representative is to “propose legislative and non-legislative solutions to improve the efficiency of the courts in cases involving agreements for a loan denominated or indexed to foreign currencies”. See: Regulation of the Minister of Justice of 12 January 2024 on the appointment of the Representative of the Minister of Justice for the Protection of Consumer Rights (Official Journal of the Ministry of Justice of 2024, item 4).

However, the degree of coverage depends on the assumptions adopted by the banks regarding the subsequent decisions taken by these borrowers.

Narodowy Bank Polski estimates indicate that, assuming that the current line of jurisprudence of courts is maintained, the value of new charges to provisions needed to cover the risk of active loans in Swiss francs can be estimated at approx. PLN 10-15 bn (see Figure 2.31). In an environment of still high interest income, the estimated amount would be manageable for the banking sector even in the short term. Additional provisions may be required for costs on account of lawsuits filed by borrowers who have taken out a loan in another currency (mainly in euro) or have already repaid their loan. These two costs can be twice as high as the aforementioned estimated shortage of charges to provisions dedicated to loan agreements in Swiss franc. Nevertheless, the banking sector has been also preparing for this scenario by gradually increasing charges to provisions on already repaid loans and euro-denominated loans (in total, approx. PLN 8 bn). The ultimate size of the banks' costs will also depend on the development direction of various elements of the line of jurisprudence⁵² and the potential costs of interest for arrears.

2.5. Liquidity risk and funding

Liquidity risk

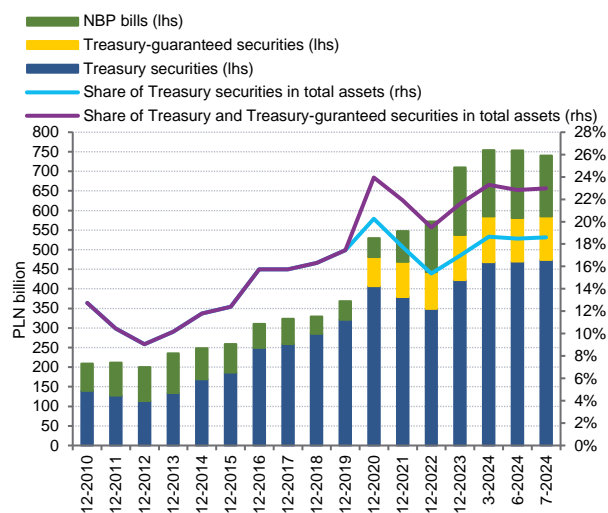
The liquidity position of the banking sector was very good. In the first half of 2024, most banks increased the value of their portfolios of Treasury bonds (see Figure 2.32 and Figure 2.33). Consequently, at the end of July 2024, almost 30% of the banking sector's balance sheet (excluding BGK) consisted of securities issued and guaranteed by the Treasury and NBP bills. Such a high level of Treasury securities on banks' balance sheets reduces their liquidity risk, but at the same time reflects their smaller role in financing the real economy.

As a result of significant investments in Treasury securities, levels of the short-term liquidity ratio (LCR), which all banks in Poland are required to comply with, significantly exceeded the regulatory requirement and the highest levels observed so far (231% for commercial banks at the end of July 2024) (see Figure 2.34). The increase in the market value of Treasury bonds was also a contributing factor⁵³ as a result of the gradual decline in their yields over this period. The estimated value of the surplus of liquid assets, understood as the excess of liquid assets over net liquidity outflows in compliance with the LCR of 100%, remained at a high stable level in the first half of 2024 (see Figure 2.35).

⁵² Among others, adjudication by the courts of the indexation of funds returned to borrowers due to a significant change in the purchasing power of money over time cannot be ruled out. Banks' costs may also increase when charging interest for delay in payment.

⁵³ For the purposes of calculating the LCR, debt securities are reported at market value regardless of which portfolio they are classified to by a bank.

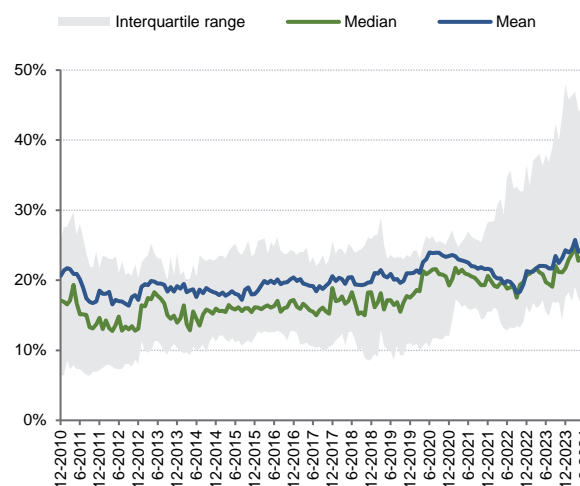
Figure 2.32. NBP bills and Treasury/Treasury-guaranteed securities in total assets of banking sector



Note: Excluding BGK.

Source: NBP.

Figure 2.33. Share of domestic Treasury securities and NBP bills in total assets of domestic commercial banks



Note: Excluding BGK.

Source: NBP.

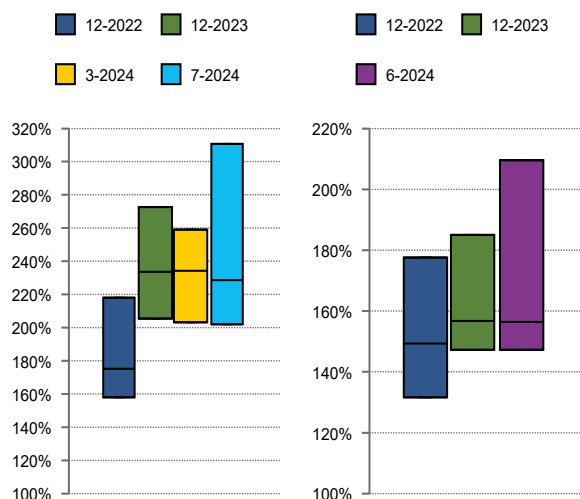
The results of the LCR-based liquidity stress tests⁵⁴ based on June 2024 data have indicated that domestic commercial banks demonstrate high resilience. Most banks have appropriate liquid asset buffers to cover increased outflows and to maintain the LCR above the required regulatory minima. The prevailing part of the sector would not face any problems in covering its liabilities in the event of repricing of its portfolio of Treasury securities and loss of customer confidence as well as increased deposit outflows.⁵⁵ The total shortfall in liquid assets⁵⁶ would amount to approx. PLN 4 bn zlotys, i.e. approximately 6.5% of the liquid assets portfolio of these banks. Covering increased outflows by banks, in principle, would not require the sale of Treasury bonds from portfolios measured at amortised cost. It should also be remembered that, in the event of a potential system-wide liquidity shock, banks, in addition to selling their liquid assets, could also raise funding through operations with NBP.

⁵⁴ The level of the LCR-based liquidity stress tests adopted in the simulation was equal for all banks. In fact, the probability and magnitude of a potential shock for individual banks may be irregular and driven by many factors, including those which are not directly associated with the bank's liquidity profile.

⁵⁵ Key assumptions: a 15% revaluation of Treasury securities, a 2.5-fold increase in the volume of deposit outflows classified in the LCR as stable, volatile and subject to higher outflow rates, inclusion of deposit outflows typically excluded from the calculation, and a 2-fold increase in the use of off-balance sheet for non-financial customers.

⁵⁶ The shortfall in liquid assets is understood as the amount missing to guarantee the LCR after a shock of at least 100%.

Figure 2.34. The LCR (left-hand panel) and NSFR (right-hand panel) ratios of domestic commercial banks



Notes: The horizontal lines indicate individual quartiles and the height of the box indicated the interquartile range. Excluding BGK and associating banks. Banks with LCR ratios higher than 500% were also excluded from the sample. The LCR of cooperative banks operating independently in July 2024 amounted to 475% and for institutional protection schemes – 377% and 388%.

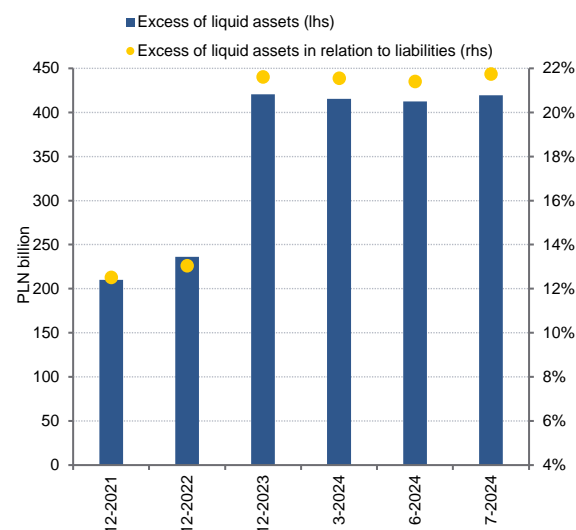
Source: NBP.

Funding risk

The structure of bank funding was stable and similar to that observed in earlier periods. Deposits from the non-financial sector remain the main source of funding for banks in Poland (71% of total assets at the end of July 2024), supplemented by liabilities of financial entities (7%) and equity (9%). At the same time, household deposits account for half of liabilities and continue to be the category with the highest increase in amount (see Figure 2.36). The role of other sources of funding, especially the issuance of debt instruments, is insignificant. Banks' preparations for the full MREL target which entered into force on 1 January 2024 increased their propensity to issue debt instruments but the increase in banks' debt on this account in 2023 has not materially changed their share in the balance sheet (see Chapter 2.7).

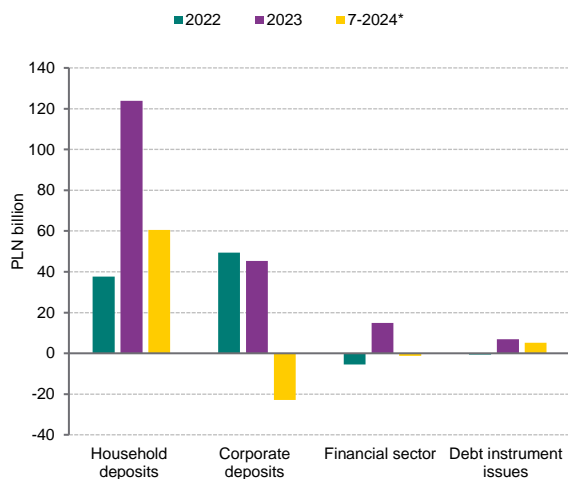
Liabilities of most banks in Poland are characterised by low entity concentration, which reduces liquidity risk. In the context of the risk of concentration of household deposits, a significant factor positively influencing their stability is the high entity fragmentation of deposits and the high share of guaranteed funds, which makes them less vulnerable to massive outflows. In commercial banks, guaranteed deposits account for more than 80% of retail deposits, which corresponds to almost 40% of their liabilities.

Figure 2.35. Excess of liquid assets at domestic commercial banks



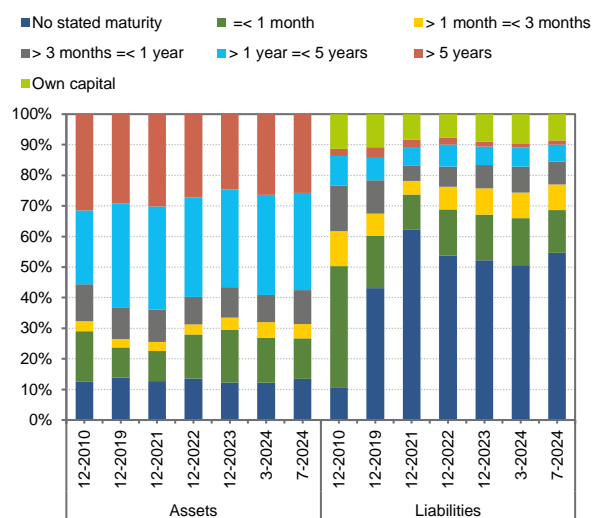
Notes: Excess of liquid assets understood as a surplus of liquid assets over net outflows under the condition that LCR=100%. Excluding BGK and associating banks.

Source: NBP.

Figure 2.36. Change in banks' main funding sources (y/y)

Notes: Data for 2024 include a change from December 2023. Data excluding BGK balance sheet.

Source: NBP.

Figure 2.37. Term structure of assets and liabilities of the banking sector

Note: Data excluding BGK balance sheet. The item "No stated maturity" on the liabilities side recognises amounts that cannot be attributed to the specific maturity, mainly current accounts (ROR) and savings accounts and smaller items (e.g. income tax liabilities, provisions). Current deposits of the non-financial sector account for around 93%.

Source: NBP.

The maturity mismatch between assets and liabilities remains the main source of funding risk in the Polish banking sector (see Figure 2.37). The share of medium- and long-term liabilities in the balance sheet is low, while items with maturity of up to 1 year prevail. However, the determinants of bank funding (high share of guaranteed and subjectively fragmented deposits) mean that the potential for the current maturity mismatch to turn into the systemic risk is limited.⁵⁷

All commercial banks met the long-term liquidity standard (NSFR). The average value of NSFR as at the end of June 2024 amounted to approx. 162% (see Figure 2.34). Meeting the standard was facilitated by its structure, which assigns the so-called high stable funding weights to retail deposits, irrespective of the deposit maturity. However, due to the continuing maturity mismatch between assets and liabilities on banks' balance sheets, the KNF enacted a new recommendation in mid-2024, the so-called Long-Term Funding Ratio (WFD) committing banks to mitigate the risks associated with the current mortgage loan funding structure (see Box 2.1). In the longer term, the funding profile of the majority of commercial banks may change under the influence of the MREL requirement (issue of eligible instruments) and the adoption of the WFD Recommendation.

⁵⁷ This issue is discussed in more detail in Box 2.2: "Financial Stability Report. December 2023", NBP, Warsaw, p. 43.

Box 2.1. Long-term funding ratio (WFD)

On 15 July 2024, the Polish Financial Supervision Authority (KNF) adopted a Recommendation on the Long-Term Funding Ratio (WFD)⁵⁸, which is intended to mitigate the risks associated with the current bank mortgage funding model, in particular to reduce liquidity risk and interest rate risk.⁵⁹

At present, the funding of these loans is mostly based on retail deposits and, in particular, current deposits. The introduction of the Recommendation is aimed to lead to an increase in the extent of mortgage loan funding with long-term debt instruments. To this end, the Recommendation defines a coverage ratio for mortgage loans with the residual maturity of not less than 1 year and sets a minimum value for this indicator.⁶⁰ By means of a weight system, instruments with longer maturities (the highest weight for maturity of at least 5 years) are treated with preference.⁶¹ In addition, in a bid to provide an incentive for banks a preferential weight has been applied to loans bearing a fixed or periodically fixed interest rate. Preferential weight was also assigned to issues of green debt instruments.

The KNF expects banks subject to the recommendation to maintain the WFD at a minimum level of 40% as of 31 December 2026. Among others, the following are exempted from meeting this requirement (i) banks with assets of less than PLN 2 bn zlotys with the share of the portfolio of housing

⁵⁸ KNF Resolution No. 243/2024 of 15 July 2024 on the issuance of the WFD Recommendation on the Long-Term Funding Ratio (Official Journal of the KNF of 2024, item 14).

⁵⁹ A similar solution (Mortgage Funding Adequacy Ratio, MFAR) to reduce the maturity gap between assets and liabilities and to support the development of the covered bonds market was introduced in Hungary in mid-2015 and has been in force since 1 April 2017. The covered bonds issued were mainly recognised in the balance sheets of domestic banks (51%) and the Magyar Nemzeti Bank (32%). As a consequence, the central bank indicates in its studies that such a high commitment of domestic banks may entail contagion risk and does not represent a stable source of funding at a sector level.

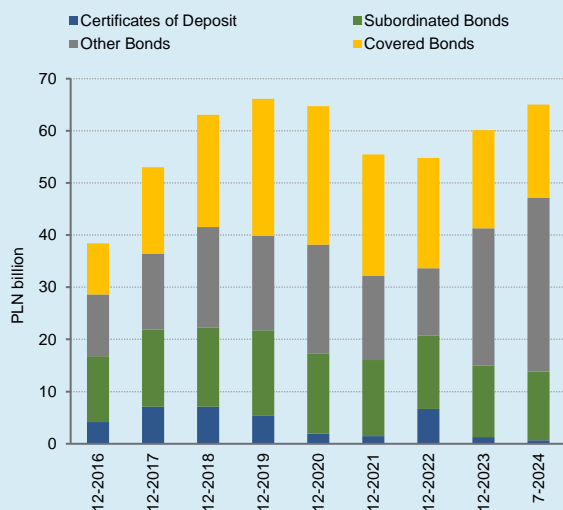
⁶⁰ The following instruments may be included as a source of funding for housing loans: excess of own funds over the OCR requirement (a possibility to include until 31 December 2033), instruments and items included in the MREL other than own funds, debt securities issued, interbank deposits accepted by the bank, deposit liabilities and loans/borrowings in the financial market, debt instruments in the form of covered bonds and retail deposits with a contractual maturity of at least two years and at the same time a residual maturity of at least one year, fully covered by the guarantee protection of the Bank Guarantee Fund (a possibility to include until 31 December 2027).

⁶¹ The weights depend on the residual maturity of the respective financing instrument.

loans to households secured by real estate in assets not exceeding 10%, and (ii) cooperative banks that are participants in the institutional protection scheme. The recommendation is a supervisory measure with regard to the so-called Pillar 2 mandate. The KNF will monitor the level of the WFD maintained by the banks and will take appropriate supervisory measures, if necessary, but these measures have not been specified. The Recommendation provides that starting from 31 December 2027, the KNF may revise the expected level of the WFD in subsequent years, taking into account both the standing of individual banks and the macroeconomic situation.

Meeting the new requirement will require banks to significantly increase their issuance of debt instruments. NBP estimates indicate that the current shortfall in funding sources for the 40% requirement based on June 2024 data amounts to approximately PLN 30 bn. Taking into account the projected growth of lending, the need to roll over previously issued instruments and the entry into force of the countercyclical capital buffer rate, it can be estimated that the stock of issuance needs by the end of 2026 will increase to approx. PLN 75 bn.⁶² Gradual elimination of surplus capital from available mortgage loan funding sources starting from 31 December 2027 will additionally significantly increase the issuance needs of banks. Indeed, it currently accounts for approx. 40% of the liabilities taken into account in the calculation of the WFD ratio.

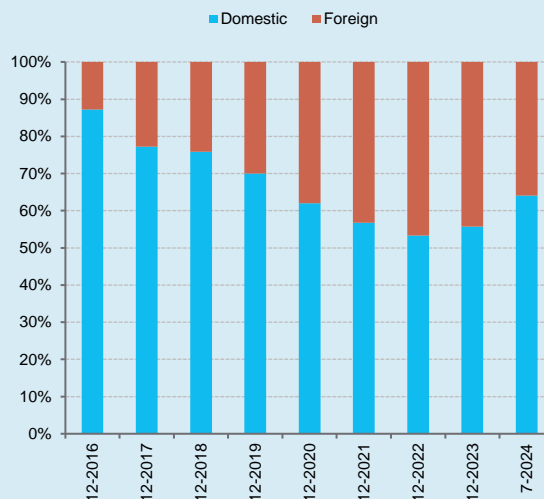
Figure 2.38. Liabilities arising from the issuance of debt securities



Note: Data excluding BGK issues to flow funds.

Source: NBP.

Figure 2.39. Debt structure of debt instruments issued (domestic vs. foreign)



Note: Data excluding BGK issues to flow funds.

Source: NBP.

⁶² Projection data from the model used in the baseline scenario of the stress tests were used to determine the path of possible lending growth and capital surpluses (see Chapter 2.8.). The profit included in the capital by June 2024 was also taken into account. The other variables remain unchanged.

To date, the role of debt instruments in bank funding has been insignificant (3% of liabilities; see Figure 2.38). At present, the issuance of debt instruments is mainly driven by the need to meet the MREL rather than by the liquidity needs of the banks. This results, among others, from the high availability of deposits bearing lower interest from the non-financial sector and low demand for lending. The value of debt due to issuance of debt securities has not yet reached the levels seen before the COVID-19 pandemic, including for mortgage banks.

If new bank issues were targeted at the internal market, this could contribute to the development of the domestic capital market and the GPW. However, to date, even small-scale bank issuance has responded to an insufficient domestic demand, therefore banks target a major part of their issues to the foreign market (see Figure 2.39). The increased interest of issuers in the foreign market has been particularly evident since 2021, when banks started to prepare for meeting the MREL. At the end of June 2024, approx. 42% of the eligible debt liabilities were issued in foreign markets, representing approximately 60% of foreign debt due to issuance of debt instruments. Previously, banks mainly placed mortgage bonds on foreign markets.

The introduction of a requirement to increase funding with debt instruments will certainly result in reducing the maturity mismatch between assets and liabilities, but at the same time may lead to undesirable consequences:

- due to the shallow domestic market, additional issuances will be more likely targeted to the foreign market and denominated in foreign currencies, generating FX risk and interest rate risk; this may be a higher problem for mortgage banks whose business is much less diversified than of universal banks operating in the group, while hedging this risk with derivatives will expose banks to liquidity risk from margin calls;
- additional issuance of debt instruments may lead to an increase in banks' funding costs and, as a result, in a situation of banking sector over-liquidity, contribute to a decrease in interest rates on household term deposits or to an increase in margins on loans;
- the drive to reduce bank funding of retail deposits may result in the risk of outflows of these funds being transformed into other risk categories, i.e. refinancing risk of wholesale debt and sector interconnectedness risk, if domestic banks were buyers of these instruments;
- in the period of deteriorating market sentiment, the WFD requirement may negatively affect the ability to increase lending. In an environment where it is difficult to issue debt instruments with adequate yields, the supply of housing loans may be restricted. Another effect could be, for example, reducing lending in segments with high-risk weights in order to increase the capital surplus, which by 2033 can be included in the WFD calculation;

- banks that do not meet the expected level of WFD, for which the resolution plans envisage liquidation in accordance with insolvency rules, may be forced to compete for demand with other banks' MREL issues. From a financial stability perspective, MREL issues should be prioritised as they allow for the efficient execution of potential restructuring processes, including large, or systemically important banks;
- smaller banks previously not issuing securities in the debt markets, will be forced to launch activities that may generate additional risks, the management of which may be challenging for them (e.g. FX risk).

It may be expected that in the longer term, issuing eligible instruments to meet the MREL will be a factor that gradually changes the existing funding profile of some banks. Currently, the average MREL-RCA coverage of eligible instruments is approximately 54%. The banks' announcements regarding further issues allow to assume that this will gradually increase, which will naturally change the banks' funding structure and at the same time affect the coverage of the WFD. It can be estimated that there is a *ceteris paribus* shortfall of approx. PLN 40 bn to cover MREL-RCA with 100% eligible instruments. Issues of eligible instruments, however, are not sufficient to cover the WFD. The elimination of surplus capital from available mortgage funding sources will significantly increase banks' issuance needs that banks will seek to cover with other funding sources.

In the NBP's opinion, the process of changing the structure of funding sources should be gradual and spread over a longer period of time than the WFD recommendation proposes.

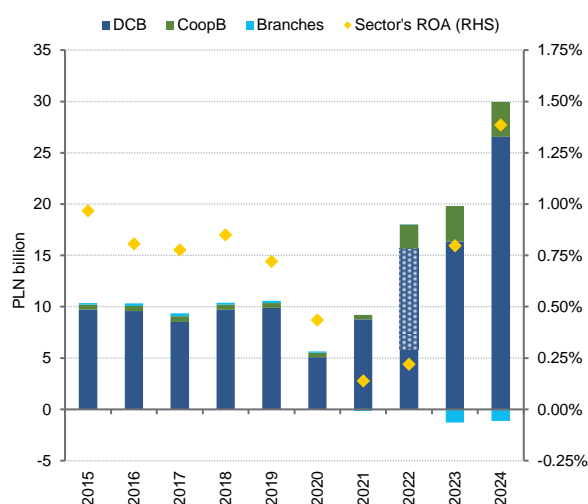
2.6. Earnings

The earnings of the banking sector increased significantly and were record high in nominal terms. The amount of the sector's net profit for the period from January to August 2024 increased by more than a half compared to the corresponding period of 2023 (see Figure 2.40). The sector's earnings also increased in relation to assets. The results improved mainly in domestic commercial banks, while the profit of cooperative banks – still many times higher than the average before 2022 – declined slightly. Despite that, the average return on assets at cooperative banks was higher than at commercial banks (see Figure 2.53).

Net interest income remains the primary source of banks' earnings and one of the main reasons for the improvement in their profitability. Over the past few years, the share of net interest income in the earnings of banking activities has steadily increased and reached 80% (see Figure 2.41), and for cooperative banks even 90%. At the same time, the importance of interest income from households gradually decreased, while the importance of income from the financial and government sectors increased (see Figure 2.42), which can be linked to the changes in asset structure that occurred during the pandemic and after the outbreak of war in Ukraine. The banking sector's net interest margin was one of the highest in the EU (see Figure 2.49). This was partly due to differences in the levels of key interest rates in individual countries, and partly linked to the high liquidity of the sector in an environment of

significant surpluses of non-financial sector's deposits over its loans. As a result of the high negative funding gap, banks were unwilling to compete strongly for customer deposits, causing the effective interest rate on liabilities to decline faster than the effective interest rate on assets.

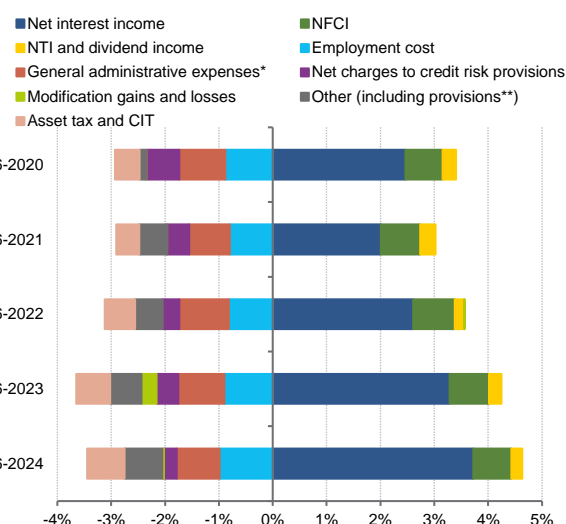
Figure 2.40. Net earnings until August (YTD) in respective years and ROA of the banking sector



Notes: DCB – domestic commercial banks, CoopB – cooperative banks, Branches – branches of credit institutions. The section of the bar with a pattern shows the hypothetical additional profit for DCB in the second half of 2022 in the absence of statutory loan repayment holidays. ROA – annualised data, excluding flow funds of BGK.

Source: NBP, BGK website.

Figure 2.41. Structure of banking sector's earnings (items of P&L account in relation to average assets)



* General administrative expenses (less tax on certain financial institutions) and depreciation.

** including provisions for legal risk of FX housing loans – except for banks which recognised them jointly with the provisions for credit risk.

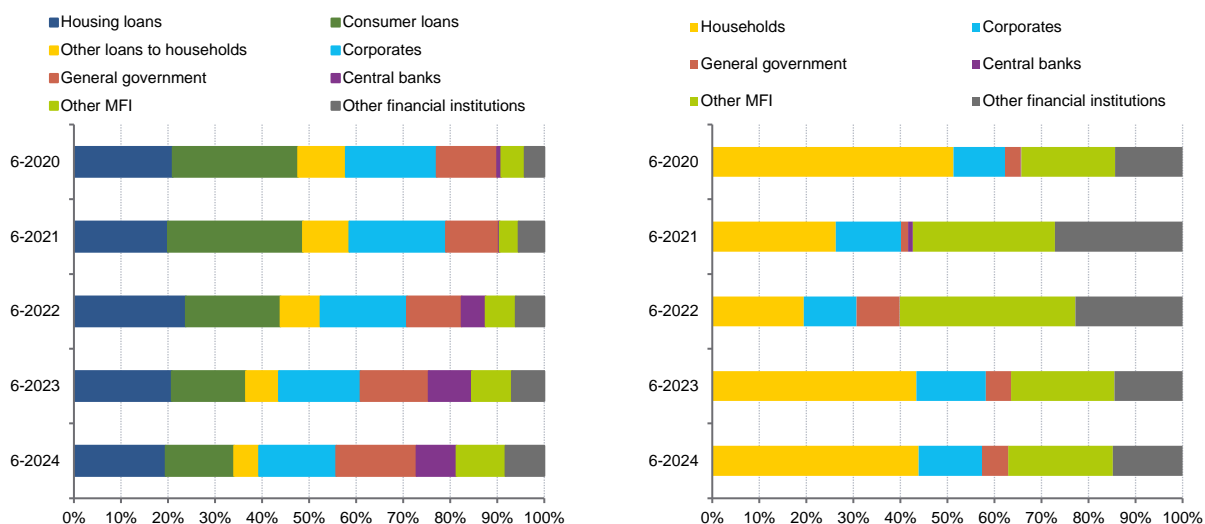
Notes: Annualised data. Average assets excluding flow funds of. NTI – net trading income.

Source: NBP.

In the medium term, assuming materialisation of the market expectations in terms of the level of interest rates, a decline in the NIM can be expected, a phenomenon typical of periods of monetary easing. Potential future declines in market rates (see Figure 1.4) would negatively affect banks' interest margins due to the nature of the Polish banking sector's exposure to interest rate risk (see Box 2.2). In particular, banks would not be able to reduce interest rates on current deposits, already close to zero. Moreover, net interest income will be undermined by the issuance of debt instruments to cover the MREL requirement (and, in the longer term, also to achieve the WFD recommended by KNF), as the interest rate on such instruments is significantly higher than the interest rate on customer deposits.⁶³

⁶³ Non-financial sector current deposits, which are the major source of funding for banks (see Chapter 2.5), usually do not bear interest, while interest rates on new non-financial sector term deposits most frequently remain well below the level of money market rates. The interest rates on non-preferred bonds issued by Polish banks to date to cover the MREL significantly exceed money market rates (often by a few percentage points).

Figure 2.42. Structure of interest income (left-hand panel) and interest expense (right-hand panel) of the banking sector



Notes: Annualised data. Banking sector excluding BGK. MFI – Monetary financial institutions.

Source: NBP.

Box 2.2. Interest Rate Risk in the Banking Book (IRRBB)

Regulations concerning the IRRBB area

The correct identification and management of interest rate risk in banks is very important for their stability and for this reason this area is subject to specific regulatory requirements. Interest rate risk in the banking book is defined as the risk of decline in the economic value of an institution's equity (*Economic Value of Equity, EVE*) or a fall in the net interest income (NII) as a result of changes in interest rates. In the Polish market, standards in this area are set by the KNF's Recommendation G⁶⁴ and the guidelines of the Basel Committee on Banking Supervision (BCBS)⁶⁵ and the European Banking Authority (EBA).⁶⁶ The aforementioned standards are complemented and clarified by the EC Regulation of December 2023 supplementing Directive 2013/36/EU of the European Parliament and

⁶⁴ Recommendation G https://www.knf.gov.pl/knf/pl/komponenty/img/Rekomendacja_G_dot_zarzadzania_ryzykiem_stopy_procentowej_w_bankach_88185.pdf

⁶⁵ BCBS Guidelines <https://www.bis.org/bcbs/publ/d368.pdf>

⁶⁶ EBA Guidelines https://www.eba.europa.eu/sites/default/files/document_library//Guidelines%20on%20the%20management%20of%20interest%20rate%20risk%20arising%20from%20non-trading%20activities%20%28EBA-GL-2018-02%29.pdf and https://www.eba.europa.eu/sites/default/files/document_library/Publications/Guidelines/2022/EBA-GL-2022-14%20GL%20on%20IRRBB%20and%20CSRBB/1041754/Guidelines%20on%20IRRBB%20and%20CSRBB.pdf

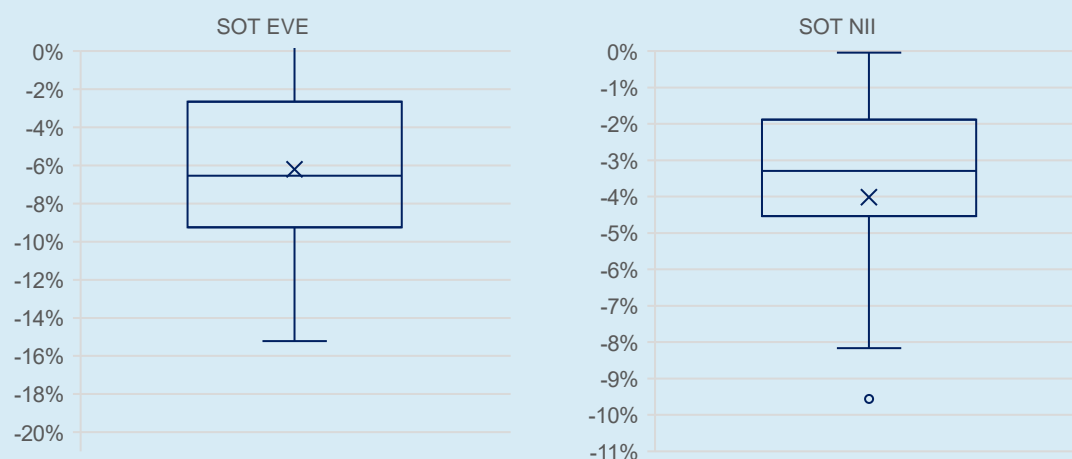
of the Council with regard to the regulatory technical standards of the IRRBB.⁶⁷ The most important changes which entered into force in 2024 include the definition of a “large reduction” indicator for interest income and Corep's new interest rate risk reporting.

The EBA guidelines define the criteria for the measurement and assessment of the risk arising from potential changes in interest rates and methods to manage and mitigate these risks. The guidelines provide European supervisory authorities, including the UKNF, with a special tool, called the *Supervisory Outlier Test* (SOT) to identify institutions particularly exposed to interest rate risk. Banks should report if the benchmarks are exceeded in any of the adverse scenarios analysed, i.e. the economic value of equity falls by more than 15% of Tier 1 Equity or the annual Net Interest Income falls by more than 5% of Tier 1 Equity. Based on the results of the SOT test, supervisory measures can be taken under Pillar 2 (P2R, P2G).

At the same time, the EBA stipulates that the SOT NII is one of the elements of the supervisory assessment of interest rate risk in the banking book, nevertheless, exceeding the 5% threshold in the test does not automatically entail hard supervisory measures (e.g. a surcharge or capital recommendation). The EBA guidelines do not commit banks to apply this threshold in their internal management/risk assessment processes.⁶⁸

Sensitivity of banks active in Poland to changes in interest rates

Figure 2.43. Distribution of sensitivity of commercial banks to changes in interest rates



Notes: Sensitivity of SOT EVE to worst-case of six scenarios; sensitivity of SOT NII to worst-case of two scenarios.

Source: NBP based on UKNF data (06.2024).

The results of the UKNF non-reporting survey show that commercial banks mostly do not exceed

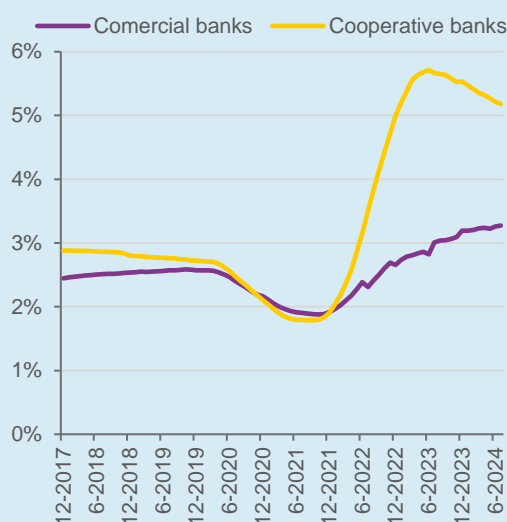
⁶⁷ Commission Delegated Regulation (EU) https://eur-lex.europa.eu/legal-content/en/TXT/PDF/?uri=OJ:L_202400856

⁶⁸ EBA opinion on proposed EC regulations [https://www.eba.europa.eu/sites/default/files/document_library/Publications/Opinions/2023/1054950/EBA-Op-2023-03 Opinion on regulatory technical standards on supervisory outlier tests.pdf](https://www.eba.europa.eu/sites/default/files/document_library/Publications/Opinions/2023/1054950/EBA-Op-2023-03%20Opinion%20on%20regulatory%20technical%20standards%20on%20supervisory%20outlier%20tests.pdf)

the benchmarks for the SOT. The sensitivity of EVE in most commercial banks is contained in the range of 3-9%, below the benchmark of 15%. On the other hand, the sensitivity of NII in commercial banks is more varied, often approaching, and in a few cases exceeding, the 5% benchmark (see Figure 2.43).

On the other hand, cooperative banks, due to the specific nature of their business model, show a much higher sensitivity of their net interest income to interest rate changes. This translates into higher volatility in the net interest margins of cooperative banks, unfavourable at times of interest rate cuts (e.g. during the COVID-19 pandemic). In periods of rapidly rising interest rates, on the other hand, the net interest margin of cooperative banks grows much faster than that of commercial banks (see Figure 2.44).

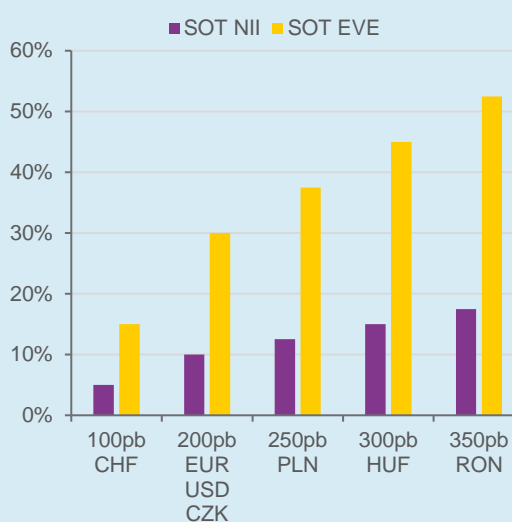
Figure 2.44. Net interest margin of commercial and cooperative banks



Notes: Annualised data.

Source: NBP.

Figure 2.45. Result of the SOT depending on the currency of the balance sheet components



Note: The stylised chart assuming identical construction of components and repricing dates of banks' balance sheets, but in different currencies.

Source: EBA guidelines, NBP calculations.

The interpretation of the SOT results and their comparability between banks poses a number of difficulties due to numerous assumptions adopted in the construction of the test and the EBA guidelines regarding, among others: (i) the magnitude of the shock, (ii) the treatment of the repricing profile of current deposits and (iii) the interdependence of both tests.⁶⁹

⁶⁹ Even at the consultation stage of the proposed guidelines, a number of European commercial banks submitted significant substantive and technical comments on the proposed solutions, pointing to the challenges of applying them to

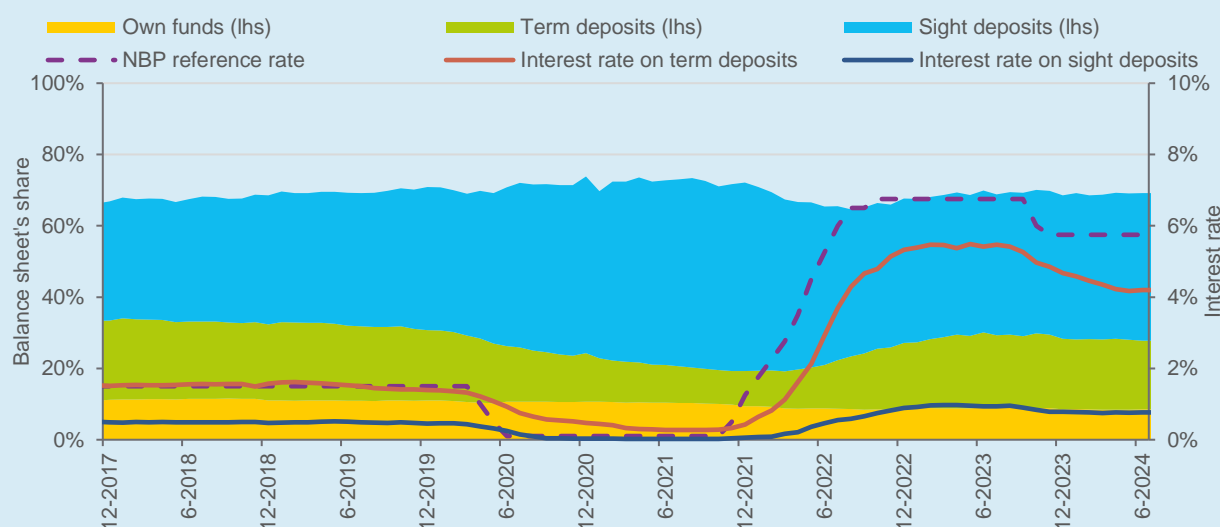
(i) *The magnitude of SOT EVE and SOT NII*

With the same reference value constraint for the SOT, different scales of a rise/decline of the yield curve are applied depending on the currency in which the components of the bank's balance sheet are denominated. For this reason, banks with the same balance sheet structure and repricing dates, but denominated in different currencies, will show very different SOT test results (see Figure 2.45).

The SOT EVE examines sensitivity to the worst-case scenario of six interest rate shock scenarios, the most common being a parallel upward shift of the yield curve. On the other hand, in the SOT NII the worst results are generated by the scenario of a parallel downward shift of the yield curve.

(ii) *Modelling of current deposits*

Figure 2.46. Share of selected liability items in the banking sector's balance sheet and the average interest rate cost against changes in the NBP reference rate



Source: NBP.

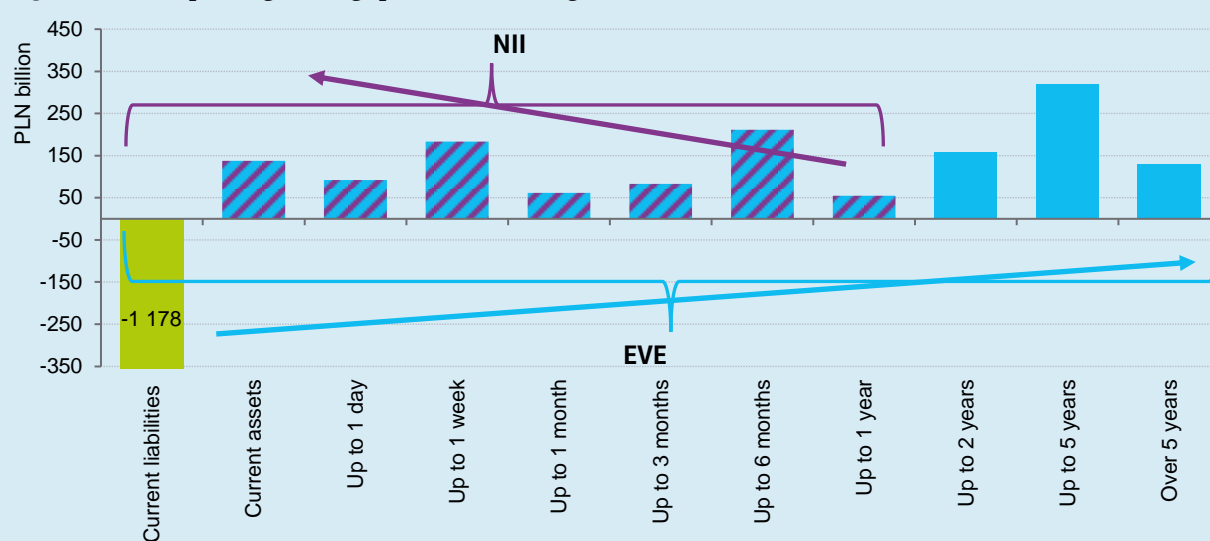
The bank's interest rate risk profile is significantly influenced by the structure of its liabilities and, above all, the share of current deposits. The EBA guidelines allow banks to treat current deposits that do not have a specific maturity date as term deposits with a maturity of up to 4-5 years and their repricing date is not reduced as for other debt instruments with a specific repricing date. As a consequence, for the purposes of the SOT EVE test, in a rising interest rate scenario the present value of current deposits decreases, which translates into a significant reduction in the SOT EVE result of retail banks compared to banks that finance themselves by issuing debt instruments. On the other hand, the high share of current deposits whose interest rates mostly do not fall below zero, is important for SOT NII. Current deposits, without a specific maturity and with low interest rates de-

the IRRBB risk management. EBA guidance consultation document <https://www.eba.europa.eu/publications-and-media/events/consultation-draft-rts-irrb-supervisory-outlier-tests>

pending on the decisions of the bank's management, account for 40% of liabilities in Poland. In comparison, non-financial sector entities' term deposits (20% of liabilities) have a relatively short average maturity of no more than 3-4 months, and their interest rate is also set by bank decision (see Figure 2.46). As a result, together with the banks' own funds (another 10% of liabilities), they account for approximately 70% of liabilities with low sensitivity to market interest rates changes, and especially to its reductions. In a low-interest rate environment, falling rate scenarios may therefore cause a surge in the SOT NII results.

(iii) Interdependence of SOT EVE and SOT NII

Figure 2.47. Repricing term gap in the banking sector (June 2024)



Notes: The arrows indicate the direction of change in NII and EVE sensitivity depending on the position of the repricing term gap. Shifting the positive gap up to 1 year to the left translates into an increase in NII sensitivity and a decrease in EVE sensitivity. A shift of the positive gap to the right beyond 1 year, translates into an increase in EVE sensitivity and a simultaneous decrease in NII sensitivity.

Source: NBP.

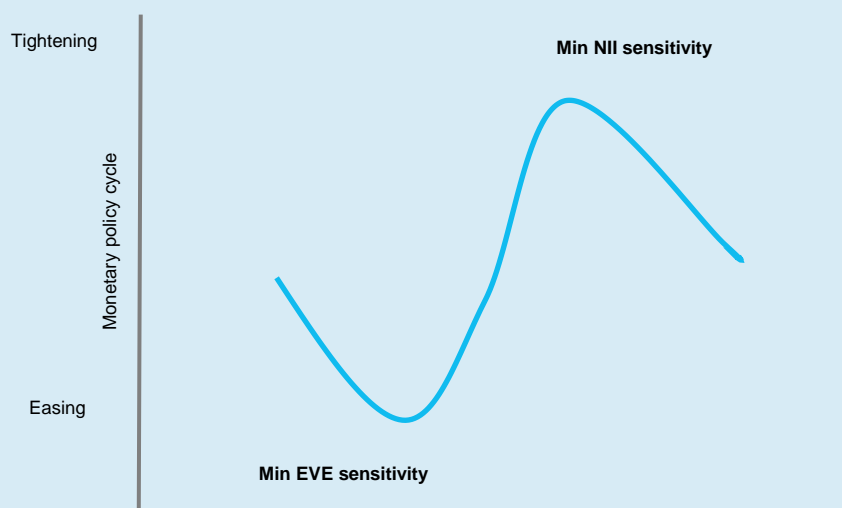
Active interest rate risk management allows banks to reduce the sensitivity of either NII or EVE, but this always happens at the expense of increasing the sensitivity of the second factor. The repricing term structure of the banking sector's assets and liabilities shows a permanent excess of earning assets over liabilities with a fixed repricing term, i.e. excluding bank equity and current deposits. The resulting positive repricing term gap means that the banks' net interest income will be more sensitive to a fall in interest rates, the shorter the repricing term of the gap to 1 year. On the other hand, the sensitivity of EVE will be greater, the longer the average repricing term of the excess of assets over liabilities (see Figure 2.47). Banks can change the repricing term structure by using derivative transactions, e.g. IRS, or by replacing NBP bills with floating- or fixed-coupon bonds.

Conclusions

An important drawback of the SOT NII is that it does not take into account the phase of the monetary policy cycle, which has a significant impact on banks' net interest income.

Mitigating the sensitivity of net interest income to a decline in interest rates makes sense in the phase of restrictive monetary policy and high interest rates, when the likelihood of a market interest rates reduction is greater than their continued growth. On the other hand, during the accommodative monetary policy phase, when interest rates are low, reducing the sensitivity of net interest income to further unlikely declines in interest rates may prove inefficient and uneconomical (see Figure 2.48). On the one hand, with low or even negative interest rates, zero interest on current deposits precludes banks from offsetting the decline in interest income, causing a surge in the sensitivity of SOT NII.

Figure 2.48. The objective of IRRBB risk management depending on the phase of the monetary policy cycle



Note: The stylised chart shows the economic rationality of IRRBB risk management taking into account the monetary policy cycle.

Source: NBP.

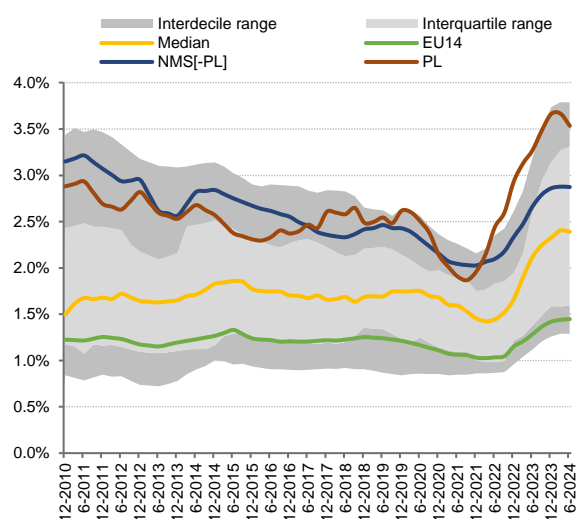
On the other hand, once the loose monetary policy phase is over, the low sensitivity of net interest income to market interest rate increases may significantly limit the growth rate of banks' interest income or generate additional interest costs and the negative pricing of derivatives.

On the contrary, mitigating the sensitivity of the SOT EVE during the restrictive monetary policy phase may reduce the propensity of banks to extend loans at a fixed rate or to purchase fixed coupon bonds. In doing so, it should be kept in mind that the sensitivity of the economic value of equity only illustrates the magnitude of the lost benefit that a bank would experience by replicating the repricing term structure of its balance sheet in an altered higher interest rate environment – rather than the accounting loss on the valuation of the bank's assets and liabilities.

The interest rate risk of the banking book is very important for Poland's banking sector stability because of the traditional business model and the consequent predominance of net interest income in the net income from banking activity. Sudden changes in market interest rates can significantly affect banks' net interest income and, consequently, their profits and equity. Consequently, reducing the sensitivity of the net interest income in the monetary policy tightening phase is advisable, while it may prove inefficient and uneconomical during the period of sustained low interest rates.

Despite the high average net interest margin compared to the EU, the profitability of Poland's banking sector – compared to banking sectors in other EU countries⁷⁰ and other domestic financial institutions – is moderate. This, to the large extent, results from the high effective taxation of domestic banks as well as the high cost of legal risk (described in more detail in Chapter 2.4) specific to the Polish banking sector. ROE of the Polish banking sector at the end of the second quarter of 2024 was lower than in the case of most EU countries (see Figure 2.50), including in particular other countries of Central and Eastern Europe (CEE). Domestic non-bank financial institutions also remained on average more profitable than banks (see Figure 2.51).

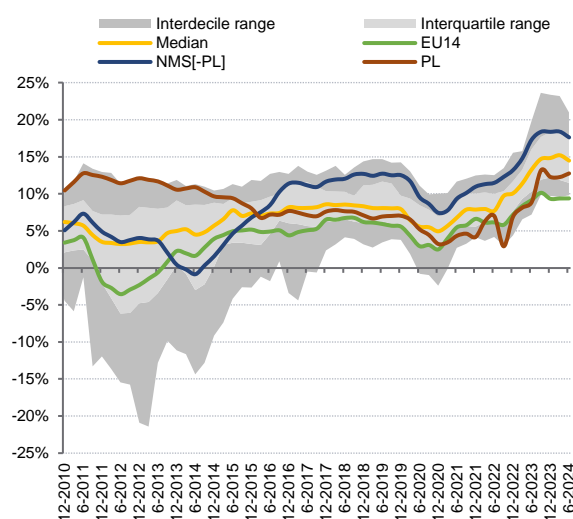
Figure 2.49. Distribution of NIM for the banking sectors of EU countries



Notes: Annualised data. EU14 – average ROE for the 14 EU member states before the 2004 enlargement. NMS[-PL] – average ROE for CEE countries that joined the EU in 2004 or later (excluding Poland).

Source: Own calculations based on ECB data.

Figure 2.50. Distribution of ROE for the banking sectors of EU countries



Notes: See Figure 2.49.

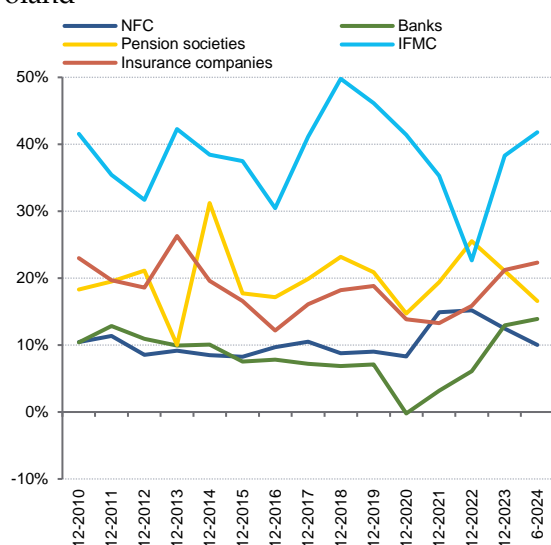
Source: Own calculations based on ECB data.

At the end of June 2024, the combined effective rate of tax on certain financial institutions (the so-called tax on assets) and CIT for banks can be estimated at 32%, compared to approximately 20% before 2016 (see Figure 2.52). The reason for the high effective CIT rate (25%) is, among others, the non-

⁷⁰ For more information on the profitability of the Polish banking sector in comparison to banking sectors in other EU countries, see Box 4.1.1 in *Financial System in Poland 2023*, available on the NBP website.

recognition of the tax on assets and part of the costs incurred by banks (including charges to provisions for legal risk) in the calculation of taxable income.⁷¹ The burden of the tax on assets is reduced by banks through purchases of Treasury bonds which are excluded from the tax base, but still the tax rate exceeds the CIT by approximately 7 percentage points. In the future, the number of banks paying the tax on assets can be expected to increase due to, among others, an increase in the value of balance sheet items that do not reduce the tax base (including loans), which may cause some entities to exceed the threshold for qualifying an entity for taxation (4 billion zlotys).

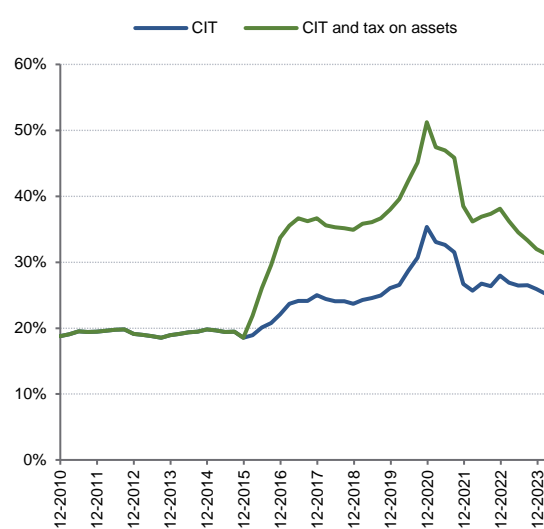
Figure 2.51. ROE of domestic banks, other financial institutions and non-financial corporations in Poland



Note: Annualised data.

Source: Own calculations based on NBP, UKNF and Statistics Poland data.

Figure 2.52. Effective rate of CIT and tax on assets at banks



Notes: Annualised data. Estimate for banks with positive net earnings in the period of 12 months.

Source: NBP.

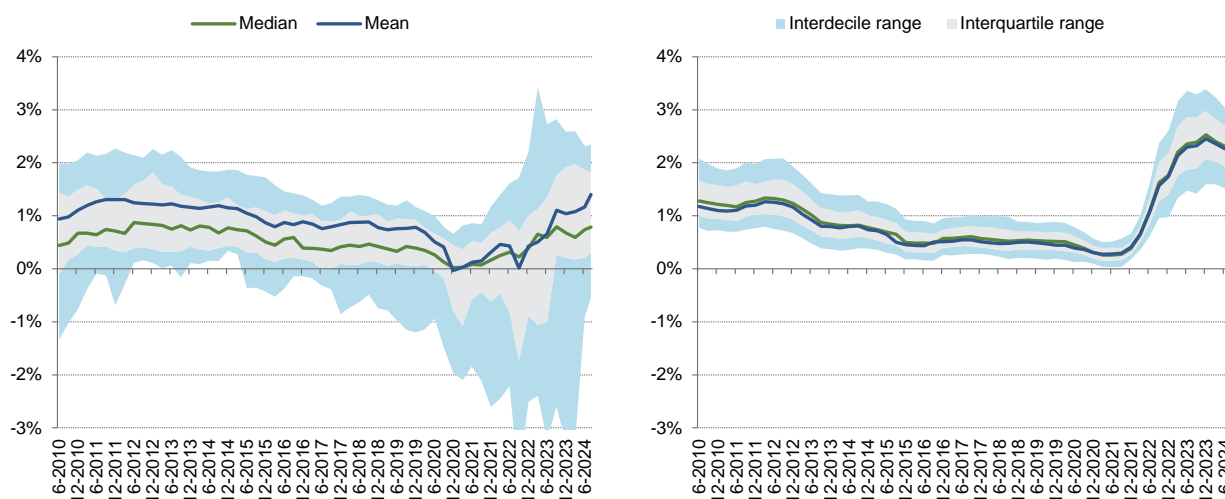
Banks, like most business entities, have faced rising operating costs. Employee costs were increasing particularly rapidly.⁷² As a consequence, banks' cost efficiency ratios (i.e. operating costs to assets and to net income from banking activity) deteriorated slightly. A continued rise of wages in the banking sector can be expected in the coming quarters, with the stable or increasing burden of other administrative costs. From 2025, the contribution to the deposit guarantee fund may also be reinstated,

⁷¹ The decrease in the effective CIT rate in the last few quarters may have been probably caused by the banks' use of the possibility (temporarily in force – until the end of 2024) to reduce taxable income by the equivalent of housing loans redeemed to customers (e.g. when concluding settlements). The terms of the tax reduction are defined in Regulation of the Minister of Finance of 11 March 2022 on the waiver of income tax on certain income (revenue) related to a mortgage loan granted for residential purposes (consolidated text – Journal of Laws 2024, item 102).

⁷² The increase in headcount at bank head offices was accompanied by a (slightly lower) decrease in headcount at branches.

provided that the increase in deposit balances by the end of 2024 leads to the ratio of deposit guarantee scheme funds to guaranteed funds falling below the target level set in the BFG Act (1.6%).

Figure 2.53. Return on assets in domestic commercial banks (left-hand panel) and cooperative banks (right-hand panel)



Notes: Annualised data. Average ROA for domestic commercial banks excluding BGK flow funds.

Source: NBP, BGK website.

The profitability of individual commercial banks is highly diversified (unlike cooperative banks), particularly due to costs of the legal risk of FX loans (see Figure 2.53). Cooperative banks are much more homogeneous: the performance of these entities is more dependent on the level of interest rates, which, under the circumstances where they are expected to fall and with a relatively high burden of operating costs, will *ceteris paribus* deteriorate the situation of these entities relatively more strongly.⁷³ The decline in the diversification of profitability of commercial banks observed in the recent period was due to the improvement of low-profitability banks. The asset share of banks with negative profitability decreased (to 2% in August 2024 from 9% in August 2023), as well as the amounts of their losses (from 15 billion zlotys to 3 billion zlotys). The losses primarily were borne by some banks with large portfolios of FX housing loans, but also some mortgage banks – due to the costs of loan repayment holidays.

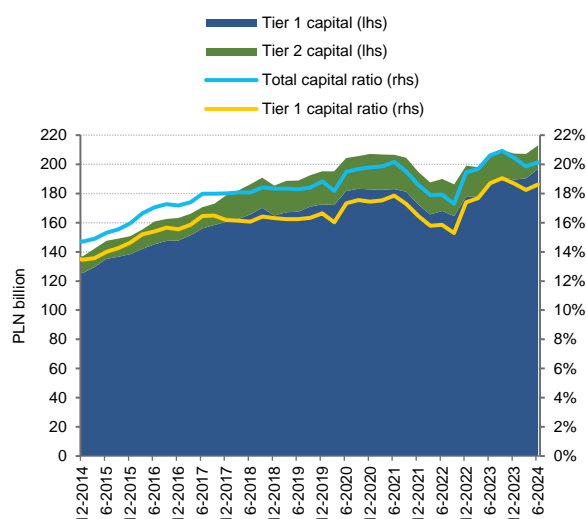
2.7. Capital adequacy

Compared to 2023, the banking sector's average capital ratios decreased slightly, but still reflected a high level of solvency (see Figure 2.54). The rise in lending in the first half of 2024 contributed to the

⁷³ At the same time, cooperative banks – given their size and structure of balance sheets – have so far been negligibly affected by the costs that have most severely reduced the profitability of commercial banks in recent years: they have paid no tax on certain financial institutions, they have no FX housing loans and the associated legal risk, their portfolios of zloty housing loans and the associated loan repayment holiday costs were insignificant. In addition, cooperative banks that participate in IPS have a relatively high coverage of impaired loans by provisions. These factors can have a positive impact on their future profitability.

increase in the total risk exposure amount (TREA) to the level previously recorded in mid-2022 (see Figure 2.55). Alongside that, the value of own funds increased as a result of, among others, the allocation of a significant proportion of profits to reserve capital, mainly in cooperative banks (see Figure 2.56). In addition, the favourable changes in the valuation of Treasury securities recognised in the capital adequacy account continued until October this year (see Figure 2.57).

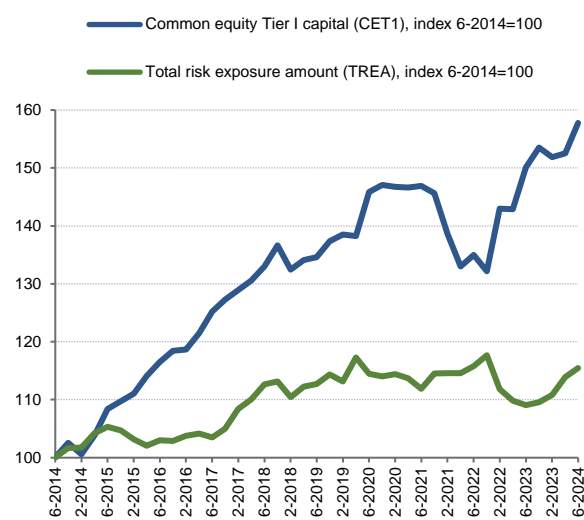
Figure 2.54. Own funds and capital adequacy ratios



Note: Excluding BGK.

Source: NBP.

Figure 2.55. Changes in the common equity Tier 1 capital ratio components

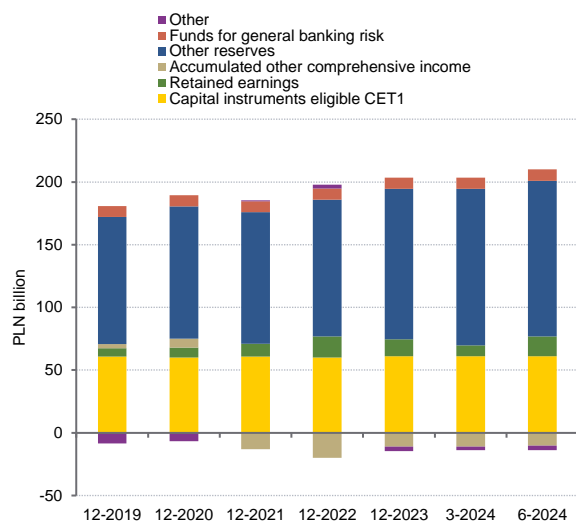


Note: Excluding BGK.

Source: NBP.

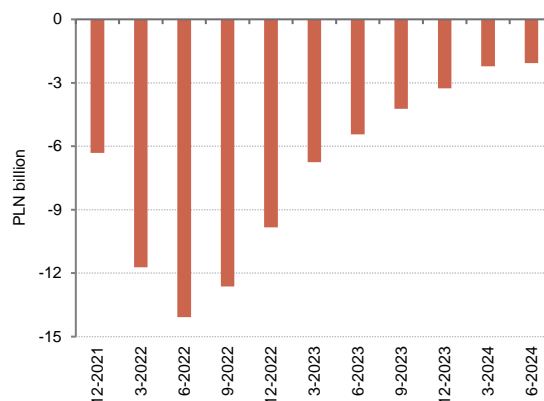
The bank's own funds have well exceeded capital requirements both in the risk-based and in the leverage regimes. At the end of June 2024, Common Equity Tier 1 (CET1) surplus over Pillar 1, Pillar 2 and the combined buffer requirements increased to the level of approx. PLN 89 bn, i.e. approx. 8.5% of the total risk exposure amount (in the majority of banks, above 6% TREA; see Figure 2.58 and Figure 2.59). These surpluses can be used, among others, to expand lending, to absorb costs resulting from unexpected shocks or to meet the requirements laid down in other, parallel prudential regimes, i.e. the leverage and resolution frameworks. The gradual introduction of a non-zero countercyclical buffer⁷⁴ will not cause a *ceteris paribus* decline of these surpluses to the extent that could be a factor in the reduction of bank lending. At this stage, the inclusion of a countercyclical capital buffer at 1% would reduce the capital surpluses vis-à-vis the Pillar 1 and Pillar 2 requirements and the combined buffer requirement to approx. PLN 79 bn.

⁷⁴ See: Regulation of the Minister of Finance of 18 September 2024 setting the countercyclical buffer rate at 1%, which will apply from the first day after the lapse of 12 months from the date of promulgation of the Regulation (Journal of Laws 2024, item 1400).

Figure 2.56. Selected CET1 items

Note: Excluding BGK.

Source: NBP.

Figure 2.57. Accumulated other comprehensive income (AOCI) after adjusting for the prudential filter

Note: Excluding BGK, after taking into account the prudential filter in the form of the provision for cash flow hedging instruments – it is positive if the cash flow hedging instruments have a negative valuation (i.e. if they reduce capital).

Source: NBP.

The sector's leverage ratio also remained at a safe level, well above the required minimum, and amounted to the average of approx. 8% at the end of June 2024. In the case of the Polish banking sector, despite a substantial portfolio of Treasury securities with a zero risk weight, the risk-based capital requirements framework generates higher capital needs than the leverage regime, reflecting the banks' conservative approach to the application of risk weights and a limited use of debt financing.

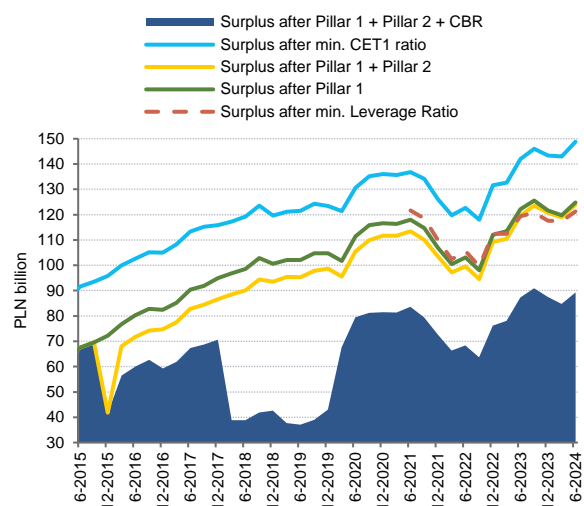
Banks continued to increase funding of the MREL-RCA requirement⁷⁵ with eligible liabilities, reducing the use of surplus CET1⁷⁶ for this purpose. From a financial stability perspective, this trend should be assessed positively, as the high coverage of MREL-RCA by eligible instruments fosters effectiveness of potential resolution actions by limiting their costs for the banking sector as a whole and does not absorb capital that could be used to conduct lending. There remains a high entity concentration and material discrepancies in terms of MREL-RCA coverage among the issuers of eligible liabilities. The majority of eligible liabilities are on the balance sheets of eight banks, while the MREL-RCA

⁷⁵ In the case of banks for which the resolution strategy does not assume ordinary insolvency, the MREL consists of two components – for loss absorption (LAA) and recapitalisation (RCA). The loss absorption amount corresponds to the amount of Pillar 1 and Pillar 2 requirements of the risk-based regime and is met solely with own funds. On the other hand, the recapitalisation amount can be met with both own funds and eligible liabilities.

⁷⁶ CET1 surpluses available after meeting the capital adequacy regime requirements.

coverage levels for this group range from approx. 35% to 95%. The structure of instruments issued is dominated by debt securities (see Figure 2.60).

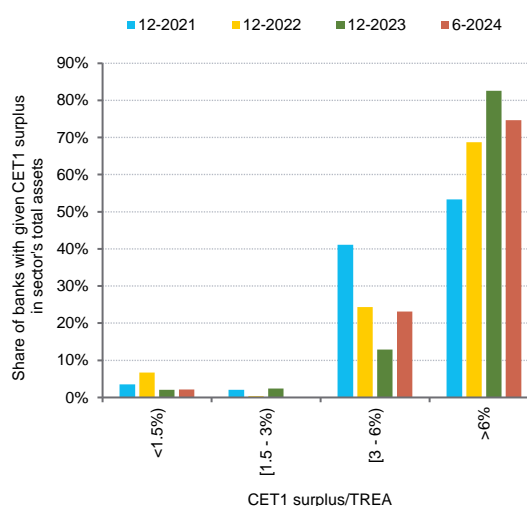
Figure 2.58. CET1 surplus after fulfilling selected capital requirements



Note: Excluding BGK.

Source: NBP.

Figure 2.59. Distribution of CET1 surpluses after fulfilling the Pillar 1 and 2 and the combined buffer requirements

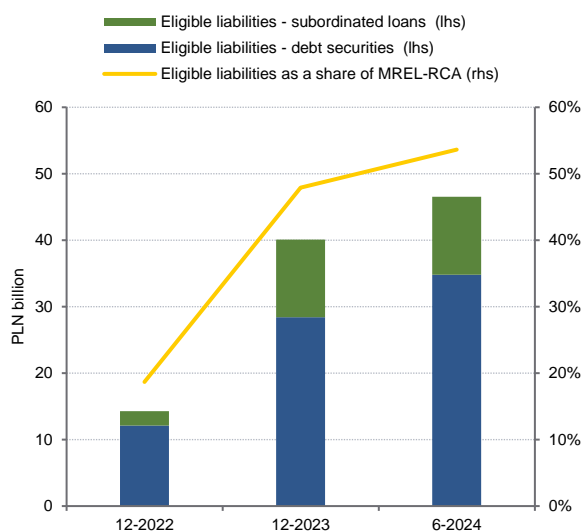


Note: Excluding BGK.

Source: NBP.

The vast majority of the banking sector meets the MREL and the combined buffer requirement in addition to MREL. Capital surpluses over the combined buffer requirement considered in addition to the MREL-TREA (CBR-M) increased in the first half of 2024 and amounted to approx. PLN 48 bn across the sector (approx. 5% of the TREA), which mainly resulted from an increase in funding via eligible liabilities (see Figure 2.61). The development of the so-defined surpluses in the second half of 2024 will be further affected by already announced issues of eligible liabilities as well as the banks' propensity to retain profits and ascribe them to own funds. The fact that the return on equity remains significantly above the estimated cost of equity of listed banks (see Figure 2.62) could be conducive to raising capital also via share issuance. However, such action is unlikely in the near term, due to the lack of structural capital shortages.

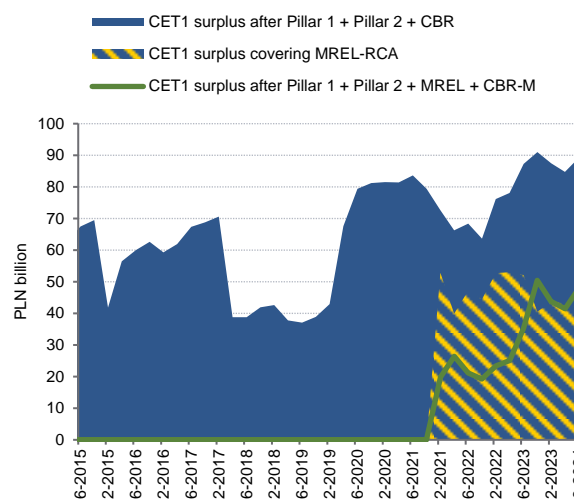
Figure 2.60. Eligible liabilities and MREL-RCA coverage



Note: Excluding BGK.

Source: NBP, BFG, banks' current reports.

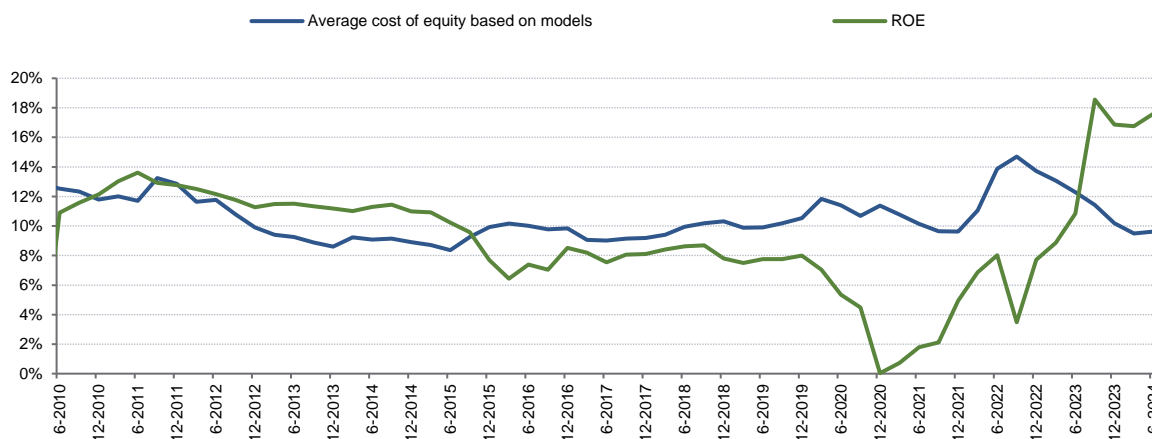
Figure 2.61. Share of CET1 surplus covering MREL



Note: Excluding BGK.

Source: NBP, BFG, banks' current reports.

Figure 2.62. Estimated cost of capital of GPW-listed banks against profitability



Source: NBP estimates based on NBP, Bloomberg and Refinitiv data.

2.8. Stress tests

Top-down stress tests were conducted to assess the resilience of domestic commercial banks⁷⁷ to an impact of adverse macroeconomic and market shocks and the costs of legal risk of FX housing loans. Two scenarios of economic developments over the period from the third quarter of 2024 to the end of

⁷⁷ Domestic commercial banks active at the end of June 2024, excluding BGK. The analysis covered 28 entities with a combined share of 80% in the banking sector's assets (excluding flow funds of BGK) at the end of June 2024.

2026 were considered. The stress tests and other analyses described in this chapter aim at identifying and assessing sensitive areas of banking sector activity. Therefore, the results of the stress tests conducted should not be treated as a forecast of the situation of the banking sector.

Main assumptions adopted in the stress tests

The analysis was carried out for two scenarios - the **reference** scenario and the **adverse** scenario. The central path of the NBP macroeconomic projection from the “Inflation Report, November 2024” was used as the **reference scenario**. The **adverse scenario** was developed on the basis of the model used for the NBP macroeconomic projections and the historical developments of macroeconomic variables for periods of global financial downturns in other countries. The paths of selected macroeconomic variables in both scenarios are presented in Table 2.1. The adverse scenario includes the stagnation of real GDP and falling market interest rates (the reference scenario – moderate real GDP growth with interest rates assumed to be constant). In addition, the adverse scenario assumes that an increase in risk aversion could result in: (i) a lasting depreciation of the zloty by 30%; and (ii) an immediate increase in the credit spread of Treasury bonds by 300 basis points (gradually decreasing in subsequent quarters of the simulation to 120 basis points at the end of 2026).

Projections from the VECM model, performed under a reference or adverse scenario, were used to determine the paths of possible lending growth⁷⁸ for each bank. The possible growth rate of other assets was determined as half the nominal GDP growth rate. It has been assumed that the bank can expand lending and increase other portfolios of assets only as long as its capital holdings allow it to cover the Pillar 1 and 2 capital requirements, the MREL-RCA requirement⁷⁹ (less the value of eligible liabilities issued before the end of June 2024⁸⁰) and the combined buffer requirement (CBR-M) increased by the countercyclical buffer target resulting from Resolution 74/2024 of the Financial Stability Committee.⁸¹ It has been assumed that undistributed profits and new profits generated in the period of analysis

⁷⁸ A possibility of a decrease in the value of the loan portfolio was also admitted, if indicated by the projection from the VECM model. The model is described in Annex to Chapter 6 of “Rozwój systemu finansowego w Polsce w 2020 r.” [Financial System in Poland 2020], NBP, Warsaw, 2021 (<https://nbp.pl/wp-content/uploads/2022/09/rozwoj2020.pdf>).

⁷⁹ Excluding the MREL-RCA in banks applying the SPE strategy.

⁸⁰ According to the law, banks can cover the MREL requirement with available surplus own funds, with retained earnings, by increasing own funds with funds raised from investors (including by issuing subordinated debt instruments) or by raising additional eligible liabilities.

⁸¹ https://nbp.pl/wp-content/uploads/2024/06/Uchwala-74-ws.-BA_06.2024_do-publicacji.pdf

increase own funds after payment of the dividend determined on the basis of criteria formulated in *The KNF Position on dividend policy in 2024*.⁸²

Table 2.1. Major economic indicators in the macroeconomic scenarios considered

Scenario	2023	2024	2025	2026
GDP (y/y, %)				
Reference	0.1	2.7	3.4	2.8
Adverse	0.1	1.8	-0.9	0.3
CPI (y/y, %)				
Reference	11.4	3.8	5.6	2.7
Adverse	11.4	3.8	4.3	1.4
Employment (y/y, %)				
Reference	0.2	-0.4	-0.2	-0.5
Adverse	0.2	-0.8	-1.2	-0.8
Real wages (y/y, %)				
Reference	1.3	10.0	3.4	4.0
Adverse	1.3	8.7	1.9	2.2
WIBOR 3M (%)				
Reference	6.5	5.9	5.9	5.9
Adverse	6.5	5.8	4.1	2.3

Source: NBP estimates based on Statistics Poland, IMF, OECD and Reuters data.

The future charges for legal risk in the reference scenario were determined by assuming that:

- half of the customers still repaying housing loans in Swiss francs, who have not yet entered into litigation or reached a settlement with the bank, will enter into a settlement.
- judicial declaration of invalidity will take place in the event of:
 - the remaining active Swiss franc loan agreements,
 - 50% of repaid loans in Swiss franc,
 - 25% of all euro housing loans (active and repaid).
- in 20% of the court cases, the customers will be awarded interest for the bank's default.

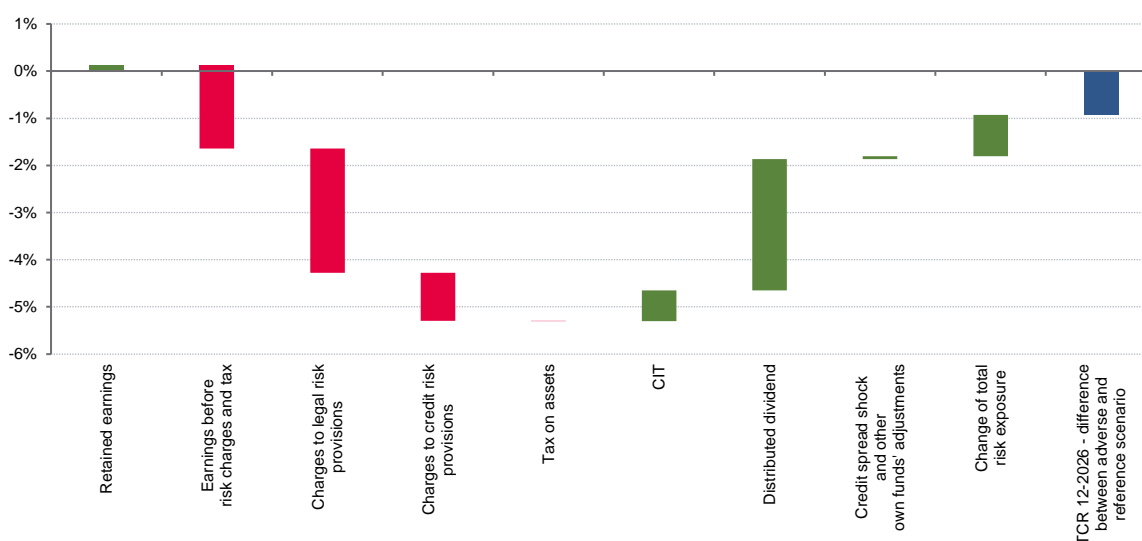
The adverse scenario assumed an additional increase in the value of these charges to provisions as a result of an increase in the percentage of loan agreements subject to litigation (up to 95% for repaid Swiss franc loans and 75% for euro loans) and additional customer claims (including up to 95% for interest for default). **The legal risk costs included in both stress test scenarios should not be considered as a forecast or as the most likely option, but only as an assumption for simulation** (more on the legal risk of FX housing loans, see Chapter 2.4).

⁸² The BION assessment factor is not included. https://www.knf.gov.pl/knf/pl/komponenty/img/Stanowisko_KNF_ws_polityki_dywidendowej_w_2024_roku_87266.pdf

Stress test results

The materialisation of the assumed adverse scenario would negatively affect the situation of the banks analysed primarily through the high legal risk costs of FX housing loans, as well as through a decrease in earnings before charges to provisions and taxes (primarily net interest income) and credit losses (see Figure 2.63). Charges to provisions for legal risk would be more than 2.5 times higher than in the reference scenario and banks would have to increase provisions for this risk by almost 80% compared to the end of June 2024. Net interest income would be 12% lower than in the reference scenario, primarily as a result of falling interest rates. At the same time, due to the economic slowdown foreseen in the adverse scenario, credit losses would be higher by a third than in the reference scenario. The impact of the shock on banks' capital ratios would primarily be limited by a lower dividend payout possibility (than in the reference scenario). On the other hand, the impact of a credit spread shock on Treasury bonds would initially be a heavy burden on the capital of the banks analysed, but subsequently its impact would gradually decrease and at the end of the simulation horizon it would be offset by an increase in the value of fixed-interest bonds as a result of the fall in interest rates.

Figure 2.63. The difference in the total capital ratio of the analysed group of banks at the end of the adverse and reference scenarios and decomposition of this difference



Notes: The blue bar indicates the difference between the total capital ratio of 28 banks analysed at the end of the adverse and reference scenarios. Green bars indicate factors increasing the average total capital ratio (TCR) in the adverse scenario compared to the reference scenario, while red bars mark factors affecting the TCR decrease. The impact of these factors is presented in percentage points. "Retained earnings" is an increase in banks' capital by the undistributed profit (as of the end of June 2024) generated before the simulation period, arising from the adopted assumptions. "Earnings before risk charges and tax" is equivalent to net income from banking activity, less, among others, operating costs. "Tax on assets" is the estimated amount of the tax on certain financial institutions that banks would pay during the simulation period. It is assumed that a bank that records a loss in two consecutive quarters shall be subject to the recovery plan, which relieves it from paying the tax for the rest of the period analysed. The "Change of total risk exposure" mainly results from changes in the balance sheet total and structure of assets (including granting new loans and changes in the value of FX housing loans).

Source: NBP.

The entry into force of the increased level of the countercyclical capital buffer during the period of analysis will “freeze” some of the banks' existing capital surpluses, but will not materially increase capital shortfalls. The vast majority of banks analysed would meet the countercyclical capital buffer target even if it were introduced at the end of June 2024. There could be a temporary increase in the share in the sector's assets of the commercial banks with capital shortfalls relative to the combined Pillar 1 and Pillar 2, MREL-RCA and combined buffer requirements, but – under the reference scenario – the banks analysed would be able to rebuild surplus capital to the end-June 2024 level over the simulation horizon (see Figure 2.64).

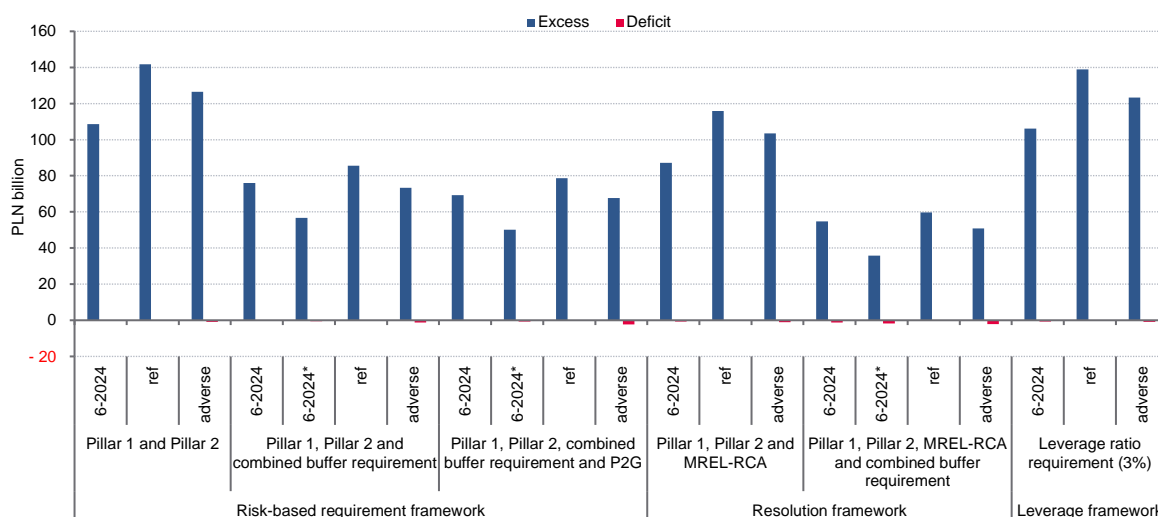
Even in the adverse scenario materialised, the vast majority of banks would generate positive financial results over the simulation period, while retaining a part of the profits could strengthen bank capital. Under the assumption that the rules of *The KNF Position on dividend policy in 2024* are applied throughout the simulation period, more than 40% of the undistributed profit generated before the analysis period and more than 60% of the profit earned during the simulation period would be allocated to increase regulatory funds (in the reference scenario, 35% and 48% respectively, but the amount of profit generated during the analysis period would be more than doubled).

The rise in excess capital would only be marginally reduced by an increase in total risk exposure amount (TREA). Portfolio-specific lending projections indicate that corporate loan indebtedness would hardly increase over the analysis horizon despite the excess of capital available at banks⁸³, while the growth in consumer loans and zloty housing loans would be moderate. On the other hand, in the reference scenario, corporate loans would grow at a modest rate, while consumer and zlotys housing loans would grow at a rate similar to the adverse scenario (in the adverse scenario, the negative impact of the economic downturn on credit is offset by a fall in interest rates). The risk exposure in both scenarios would be reduced by the conversion of FX housing loans into zloty loans combined with the redemption of a significant part of the loan (if a settlement is reached)⁸⁴ or their removal from the balance sheet (in the case of the loan agreement being declared null and void).

⁸³ Even the assumption that banks voluntarily maintain the so-called management buffer over and above prudential regulation requirements hardly reduces the total lending of the banks analysed in any of the scenarios – provided that banks with capital surpluses over the management buffer can substitute for banks with capital shortfalls in lending.

⁸⁴ In such a case, in addition to the reduction in exposure resulting from the redemption of a part of the loan, a reduction in the risk weight also occurs in the standardised capital requirements calculation method (used by most of the banks analysed). Both in accordance with Polish regulations in force until the end of 2024 (Regulation of the Minister of Development and Finance of 25 May 2017 on higher risk weight for exposures secured by mortgage on real estate, Journal of Laws 2023, item 1751), as well as the amended CRR (Regulation (EU) 2024/1623 of the European Parliament and of the Council of 31 May 2024 amending Regulation (EU) No 575/2013 as regards requirements for credit risk, credit valuation

Figure 2.64. Total excess and deficit of Common Equity Tier 1 capital of the analysed group of banks at the end of June 2024 and at the end of the simulation period (2026) after meeting the requirements applicable in different prudential regulation frameworks



Notes: Excess capital and deficits for 28 banks analysed. For the MREL RCA requirement (calculated on stand-alone data), the coverage of this requirement by capital alone was assumed (with the exception of eligible liabilities already issued). Only in the case of subsidiary banks owned by groups applying the SPE resolution strategy, the MREL-RCA requirement was allowed to be covered by new issues of eligible liabilities. The combined buffer requirement in the reference and shock scenarios takes into account the countercyclical buffer target resulting from Resolution 74/2024 of the Financial Stability Committee. The hypothetical impact of including the countercyclical buffer target in the combined buffer requirement at the end of June 2024 is shown as 6-2024*.

Source: NBP.

If the adverse scenario materialised, at the end of the analysis horizon⁸⁵ some banks would cease to meet the capital requirements as a result of covering the losses incurred (especially those arising from legal risk costs) with capital, while at the end of the reference scenario almost all banks in the simulation would meet the capital requirements analysed.⁸⁶ In the adverse scenario as at the end of 2026 (see Figure 2.64 and Figure 2.65):

- banks with a total share of 1% in the sector's assets⁸⁷ would fail to meet the leverage requirement, while the associated Tier 1 capital shortfall would amount to 0.8 billion zlotys,

adjustment risk, operational risk, market risk and the minimum capital threshold, due to take effect from 2025), housing loans in a currency consistent with the debtor's income are, in principle, assigned a lower risk weight than loans in other currencies.

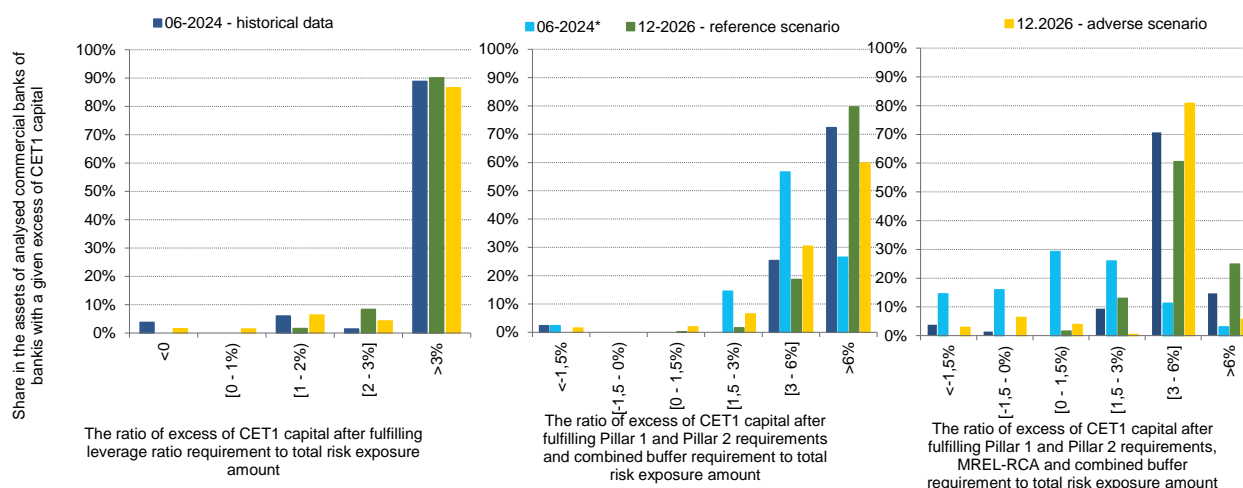
⁸⁵ In the first quarters of the simulation period, the share of non-compliant banks would have been higher, as would the amount of shortfalls (among others, as a result of the bond credit spread shock, which partially expires over time).

⁸⁶ Only in the case of the combined Pillar 1 and Pillar 2 requirement, the combined buffer requirement and the Pillar 2 guidance would entities with a 0.13% share of the sector's assets show a slight deficit of less than 0.1 billion zlotys .

⁸⁷ Shares calculated relative to sector assets excluding flow funds of BGK.

- banks with a total share of 2% in the sector's assets would fail to meet the Pillar 1 and Pillar 2 requirements, while the associated CET1 capital deficit would amount to 0.8 billion zlotys,
- banks with a total share of 1.5% in the sector's assets would fail to meet jointly the Pillar 1 and Pillar 2 capital requirements and the combined buffer requirement and the total CET1 capital shortfall would amount to approx. 1.3 billion zlotys,
- commercial banks with a total share of 7.4% in the sector's assets would fail to meet jointly the Pillar 1 and Pillar 2 capital requirements, the MREL-RCA requirement and the combined buffer requirement, with the total CET1 capital shortfall amounting to 2 billion zlotys.

Figure 2.65. Distribution of assets of the analysed commercial banks according to excess Common Equity Tier 1 capital after meeting the requirements applicable in different prudential regulation frameworks



Notes: See Figure 2.64.

Source: NBP.

It should be emphasised that the estimated amounts of capital shortfalls at the end of the adverse scenario would be minor. This would be supported by the good initial capital position of the banks analysed (including a high leverage ratio) and the relatively high profitability of the core banking business. In addition, the burden of credit losses on banks' earnings would be lower than in the past. The lower sensitivity of banks to the effects of the credit risk materialisation results from changes in the asset structure in recent years – an increase in the share of debt securities issued and guaranteed by the State Treasury with a simultaneous decrease in the share of loans to the non-financial sector. Such a change in balance sheet structure improves banks' resilience to credit risk, but may make them more vulnerable to other risks and carry adverse consequences for economic development (see Chapter 4.1.4).

If a systemic risk assessment by the Financial Stability Committee indicated such a need – the counter-cyclical capital buffer could be released in the event of materialisation of the adverse scenario. In such

a case, the surpluses of Common Equity Tier 1 capital in the banks analysed would increase significantly.

The simulation results indicate that meeting the MREL-RCA requirement by issuing eligible debt instruments would improve the long-term lending outlook. The lack of new issuance of eligible instruments assumed in the simulation results in the reduction in excess of capital due to the need to cover the MREL-RCA requirement with capital. During the analysis period, this would not have a major impact on financial stability due to low loan demand. On the other hand, over a longer horizon, should the economic growth return to higher levels and loan demand increase, too low excess capital after meeting the MREL-RCA requirement and the combined buffer requirement could become a constraint on lending expansion. In addition to the beneficial effect on the excess of capital, meeting the MREL-RCA requirement with debt instruments would increase the efficiency of the resolution process in crisis situations.

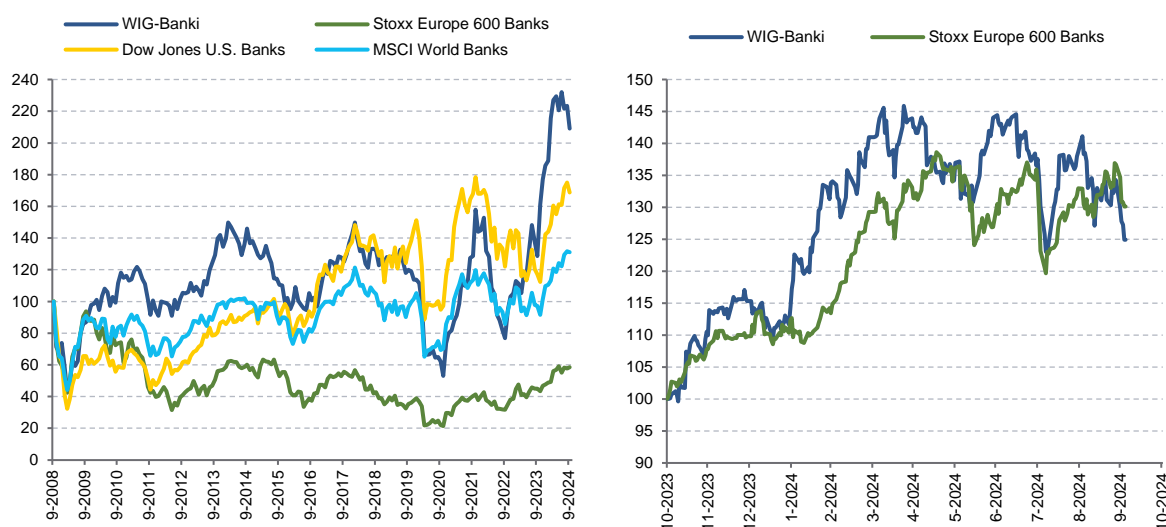
The banks' excess capital allowing for lending expansion beyond 2026 may be limited by the use of capital to cover the KNF recommended Long-term Funding Ratio (see Box 2.1).

2.9. Market assessment of banks

Domestic factors decreased the valuation of Polish banks and reduced their advantage over European banks in terms of the value of the “price-to-book ratio”. Higher-than-expected earnings of banks for the first half of 2024 and the release of funds from the National Recovery and Resilience Plan failed to offset the strong decline in bank listings caused by the extension of the loan repayment holiday until the end of 2024. Global factors also had a significant impact on the quotations of Polish bank shares, among others, due to the high importance of foreign investors in the Polish market.⁸⁸ Changing investors' expectations regarding the Federal Reserve interest rate cut, the outcome of the European Parliament elections and the persistence of geopolitical risks due to the situation in the Middle East and in Ukraine exacerbated global market sentiment and affected bank share quotations on the GPW. The collapse of the Tokyo stock exchange indices on 5 August 2024 caused, among others, by the Bank of Japan's shift in monetary policy, which disrupted European and global bank listings in the short term, provided a stimulus to the consolidation of the depressed valuation levels of Polish banks (see Figure 2.66). Nevertheless, Polish banks are still measured significantly higher in terms of their “price-to-book” value ratio than foreign entities (see Figure 2.67). This is evidence of a good assessment of the development prospects of the banks operating in Poland.

⁸⁸ In the first half of 2024, the share of foreign investors in trading on the GPW Main Market rose to 67% – Press release of the GPW of 29 August 2024, available at https://www.gpw.pl/news?cmn_id=115836&title=Quarter+Million+Active+Brokerage+Accounts+in+Poland

Figure 2.66. Prices of stock indices of selected bank groups after the outbreak of the global financial crisis (left-hand panel) and in the last 12 months (right-hand panel)



Note: Prices of indices scaled to 100 as at 15 September 2008 and 31 October 2023 on the left-hand and right-hand panel, respectively.

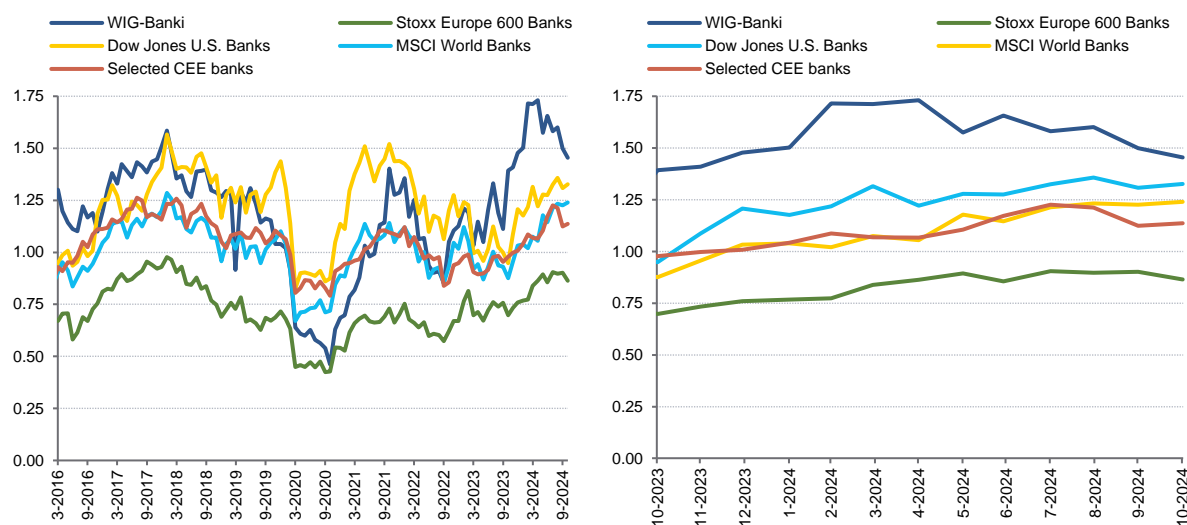
Source: NBP calculations based on Refinitiv data.

Rating agencies have raised or affirmed individual ratings for banks operating in Poland. The rating agencies positively assessed the profitability, liquidity and quality of the loan portfolio of the banks surveyed.⁸⁹ They emphasized that maintaining high interest rates and access to low-cost domestic deposits allows banks to generate high interest margins and net profits, providing an opportunity to improve their capital endowment. In assessing the Polish banking sector, S&P Global Ratings stressed that the stabilisation of the FX loan portfolio problem, as well as the improving macroeconomic environment and the inflow of European funds will support banks' lending activity.⁹⁰ In the agency's opinion, the government's regulatory interference, which has repeatedly led to additional financial burdens on banks, as well as the government's continued ownership control over a significant part of the banking sector, can disrupt its efficient operation.

⁸⁹ The Fitch agency has upgraded to BB+ the long-term rating of Bank Millennium and affirmed ratings of the following banks: Bank Pekao, Santander Bank Polska, mBank, ING Bank Śląski, Bank Handlowy and Bank Ochrony Środowiska. S&P Global Ratings has upgraded to positive the outlook for the long-term ratings of mBank and Alior Bank.

⁹⁰ Banking Industry Country Risk Assessment: Poland. S&P Global Ratings, 17 May 2024.

Figure 2.67. The “price-to-book-value” ratio for selected bank groups since 31 March 2016 (left-hand panel) and in the last 12 months (right-hand panel)



Note: Selected CEE banks – the arithmetic mean of the “price-to-book-value” ratio for the ten largest listed banks in CEE countries, excluding Poland.

Source: NBP calculations based on Bloomberg data.

2.10. Selected indicators describing the situation of the banking sector

Table 2.2. Banking sector

in %	6-2023	9-2023	12-2023	3-2024	6-2024
Return on assets (ROA) *	0.60	1.00	1.07	1.10	1.18
Return on Tier 1 capital (RORC) *	9.2	14.7	14.0	14.6	15.8
Return on accounting capital (ROE) *	9.2	14.1	12.9	13.0	13.9
Net interest margin (NIM) *	3.28	3.51	3.66	3.69	3.72
The share of net interest income in net income from banking activity *	77.2	78.2	79.3	80.1	80.3
The share of net noninterest income in net income from banking activity *	22.8	21.8	20.7	19.9	19.7
Operating costs to net income from banking activity (CTI) *	46.4	43.4	42.4	42.5	42.7
Net charges to credit risk provisions to net income from banking activity *	9.4	7.5	5.9	5.6	5.0
Loan growth rates (y/y)					
- nonfinancial sector	-1.9	-2.3	0.3	2.0	3.1
- households	-4.2	-2.5	0.3	2.9	4.3
- consumer loans	0.4	2.4	4.1	5.7	6.6
- housing loans	-5.4	-4.2	-1.0	2.7	4.4
- enterprises	2.7	-1.9	0.5	0.5	0.8
Impaired loan ratios					
- nonfinancial sector	5.6	5.7	5.5	5.3	5.1
- households	5.3	5.4	5.1	5.0	4.5
- consumer loans	8.7	8.8	8.1	8.1	7.4
- housing loans	2.3	2.2	2.2	2.1	1.7
- enterprises	6.2	6.3	6.2	5.9	6.0
Net charges to credit risk provisions to net value of loans *					
- nonfinancial sector	0.76	0.63	0.61	0.61	0.57
- households	0.80	0.65	0.64	0.60	0.53
- consumer loans	2.05	1.91	1.61	1.54	1.31
- housing loans	0.14	-0.05	0.04	0.02	0.03
- enterprises	0.69	0.61	0.57	0.63	0.63
Funding gap	-27.0	-29.0	-27.5	-27.9	-28.7
Total capital ratio	20.6	20.9	20.4	19.9	20.0
Tier 1 capital ratio	18.7	19.1	18.7	18.2	18.5
Core Equity Tier 1 capital ratio	18.7	19.1	18.6	18.2	18.4
Financial leverage (multiple)	12.1	12.4	12.8	12.9	12.7
Leverage ratio according to CRDIV/CRR	8.2	8.0	7.8	7.7	7.8

Notes: Annualised data are marked with an asterisk. Capital ratios and returns on equity calculated for domestic banks excluding BGK. ROA, NIM indicators excluding flow funds of BGK. The growth rate of loans calculated using only transactional changes.

Source: NBP, BGK website.

Table 2.3. Domestic commercial banks

in %	6-2023	9-2023	12-2023	3-2024	6-2024
Return on assets (ROA) *	0.66	1.10	1.04	1.08	1.16
Return on Tier 1 capital (RORC) *	7.4	13.4	12.5	13.2	14.7
Return on accounting capital (ROE) *	7.5	13.0	11.7	11.9	13.1
Net interest margin (NIM) *	3.14	3.40	3.58	3.62	3.66
The share of net interest income in net income from banking activity *	76.5	77.6	78.9	79.7	80.0
The share of net noninterest income in net income from banking activity *	23.5	22.4	21.1	20.3	20.0
Operating costs to net income from banking activity (CTI) *	42.7	39.3	38.6	38.4	38.5
Net charges to credit risk provisions to net income from banking activity *	9.5	7.6	6.0	5.8	5.1
Loan growth rates (y/y)					
- nonfinancial sector	-1.8	-2.5	-1.3	0.6	1.2
- households	-4.6	-3.3	-2.5	-0.3	0.9
- consumer loans	-1.1	0.8	1.6	3.2	4.1
- housing loans	-5.4	-4.1	-2.6	1.1	2.7
- enterprises	4.4	-0.7	1.4	2.5	2.0
Impaired loan ratios					
- nonfinancial sector	5.6	5.7	5.5	5.3	5.0
- households	5.3	5.4	5.1	5.0	4.5
- consumer loans	9.0	9.1	8.4	8.4	7.8
- housing loans	2.3	2.2	2.2	2.0	1.7
- enterprises	6.1	6.2	6.2	5.8	6.0
Net charges to credit risk provisions to net value of loans *					
- nonfinancial sector	0.72	0.61	0.61	0.61	0.58
- households	0.79	0.66	0.67	0.62	0.55
- consumer loans	2.12	1.97	1.67	1.60	1.36
- housing loans	0.16	-0.02	0.07	0.04	0.06
- enterprises	0.60	0.54	0.51	0.60	0.63
Funding gap	-25.9	-27.8	-26.1	-26.4	-27.1
LCR	208.3	219.5	233.0	228.0	227.8
Total capital ratio	20.4	20.8	20.4	19.8	19.5
Tier 1 capital ratio	18.4	18.8	18.5	18.1	17.9
Core Equity Tier 1 capital ratio	18.4	18.8	18.5	18.0	17.9
Financial leverage (multiple)	12.2	12.4	12.8	12.9	13.0
Leverage ratio according to CRDIV/CRR	8.0	7.9	7.6	7.5	7.5

Notes: Annualised data are marked with an asterisk. Capital ratios and return on equity calculated for domestic commercial banks excluding BGK. LCR additionally excluding the associating banks. ROA, NIM indicators excluding flow funds of BGK. The growth rate of loans after adjusting for FX rate changes.

Source: NBP, BGK website.

Table 2.4. Cooperative banks

in %	6-2023	9-2023	12-2023	3-2024	6-2024
Return on assets (ROA) *	2.30	2.32	2.46	2.37	2.27
Return on Tier 1 capital (RORC) *	30.0	29.7	31.0	29.5	26.8
Return on accounting capital (ROE) *	24.7	24.0	24.6	23.1	21.6
Net interest margin (NIM) *	5.71	5.64	5.53	5.36	5.21
The share of net interest income in net income from banking activity *	89.8	90.0	89.9	90.0	90.1
The share of net noninterest income in net income from banking activity *	10.2	10.0	10.1	10.0	9.9
Operating costs to net income from banking activity (CTI) *	43.5	44.3	41.3	42.5	43.8
Net charges to credit risk provisions to net income from banking activity *	10.3	8.5	7.1	6.3	5.7
Loan growth rates (y/y)					
- nonfinancial sector	-3.7	0.5	5.4	6.3	9.0
- households	-5.6	0.3	7.7	9.3	12.3
- consumer loans	-0.3	2.9	3.7	7.0	8.0
- housing loans	-4.3	-4.3	-2.7	-0.5	0.9
- enterprises	1.2	0.9	-0.2	-1.1	0.8
Impaired loan ratios					
- nonfinancial sector	8.1	7.6	7.3	7.1	6.8
- households	5.3	5.0	4.7	4.7	4.6
- consumer loans	4.8	4.6	4.5	4.4	4.1
- housing loans	1.3	1.3	1.3	1.4	1.4
- enterprises	14.9	14.4	14.3	13.7	12.9
Net charges to credit risk provisions to net value of loans *					
- nonfinancial sector	1.81	1.48	1.23	1.06	0.95
- households	1.16	0.96	0.76	0.72	0.65
- consumer loans	1.11	1.02	0.78	0.71	0.61
- housing loans	0.20	0.18	0.27	0.32	0.30
- enterprises	3.59	2.88	2.53	2.02	1.79
Funding gap	-81.0	-85.5	-85.3	-89.7	-89.8
Unconsolidated LCR	507.2	524.6	457.5	462.3	473.0
Consolidated LCR	363.6	355.6	355.9	381.7	381.2
Total capital ratio	23.3	22.6	20.6	20.6	25.5
Tier 1 capital ratio	22.8	22.2	20.2	20.2	25.1
Core Equity Tier 1 capital ratio	22.8	22.2	20.2	20.2	25.1
Financial leverage (multiple)	11.4	12.1	12.7	12.9	10.5
Leverage ratio according to CRDIV/CRR	10.6	10.1	9.6	9.4	11.6

Notes: Annualised data are marked with an asterisk. Unconsolidated LCR – data for cooperative banks which must comply with the LCR standard on an unconsolidated basis. Consolidated LCR – data for cooperative banks that were permitted to comply with the LCR standard on a consolidated basis and for the associating banks.

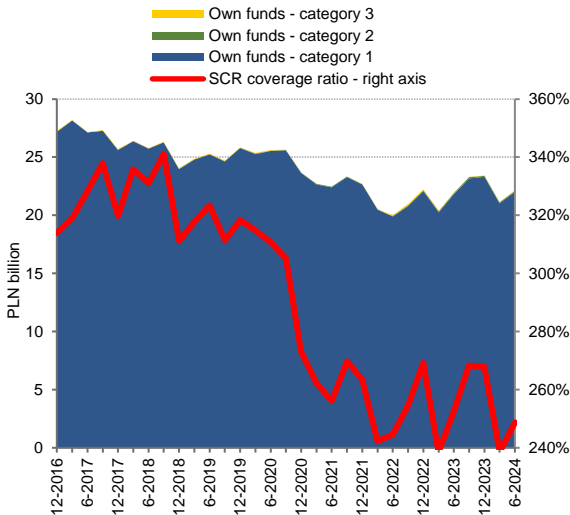
Source: NBP.

3. Non-banking sector situation

3.1. Insurance companies

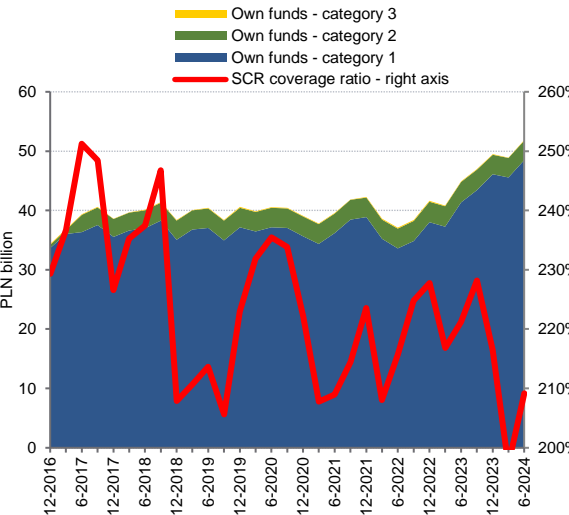
At the end of the first half of 2024, the insurance sector showed one of the lowest solvency ratios, but SCR coverage of eligible own funds remained at a safe level. In life insurance, the ratio was 249% (see Figure 3.1), 19 percentage points less than at the end of 2023, and 209% in non-life insurance (see Figure 3.2), 7 percentage points less than at the end of 2023. The sector-wide ratio fell to 220% and was more than 30 percentage points below the EEA average (251%).⁹¹ All insurance companies had own funds at a level higher than the Solvency Capital Requirement and the Minimum Capital Requirement. Only four entities maintained the SCR coverage ratio below 150%. The first half of 2024 saw an increase in the value of assets and the number of life insurance entities with the lowest solvency ratio below 200%, which at the end of June 2024 represented more than 30% of the sector’s assets. The high weighted average for life insurers was generated by the largest entities. The share of three companies with the ratio above 300% amounted to more than 35% of assets. In non-life insurance, the highest number of companies (21) belonged to the group with the lowest solvency, below 200%, four more than at the end of 2023. However, almost 60% of the assets of non-life insurance were concentrated in entities with the solvency ratio in the range of 200-300%. Only one company exceeded the threshold of 300%. Like in life insurance, the median was more than 30 percentage points below the weighted average.

Figure 3.1. Own funds and the SCR coverage ratio – life insurance



Source: UKNF.

Figure 3.2. Own funds and the SCR coverage ratio – non-life insurance



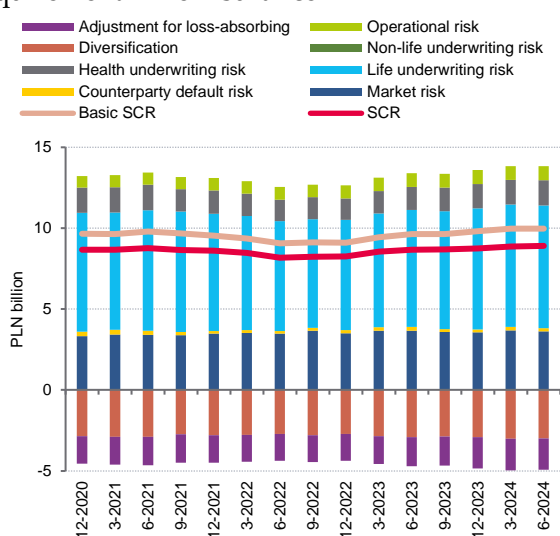
Source: UKNF.

In the first half of 2024, a decline in own funds of life insurance companies was observed, with a simultaneous increase in non-life insurance. In life insurance, capital amounted to 22.1 billion zlotys

⁹¹ EIOPA data as at the end of first quarter of 2024.

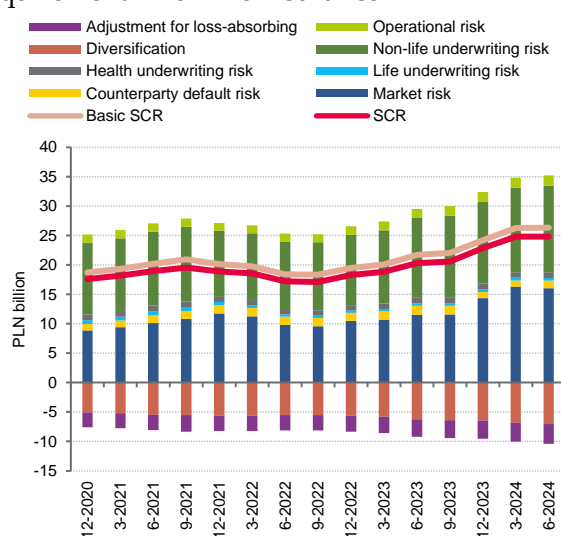
at the end of the period, 1.3 billion less than in December 2023. At the same time, non-life insurance companies increased their capital by 2.4 billion zlotys to 51.9 billion zlotys. The decline in funds in life insurance companies was driven by higher liabilities, in particular those resulting from approved dividends from previous years' profits. Non-life insurance companies also increased their liabilities due to approved profit distributions, but contrary to life insurance entities their dividends were relatively smaller. Moreover, due to the ownership structure, a significant part of life insurance disbursements constituted non-life insurance income. In addition, non-life insurance undertakings held more shares in their assets, the valuation of which increased during the period under review.

Figure 3.3. Structure of the Solvency Capital Requirement – life insurance



Source: UKNF.

Figure 3.4. Structure of the Solvency Capital Requirement – non-life insurance



Source: UKNF.

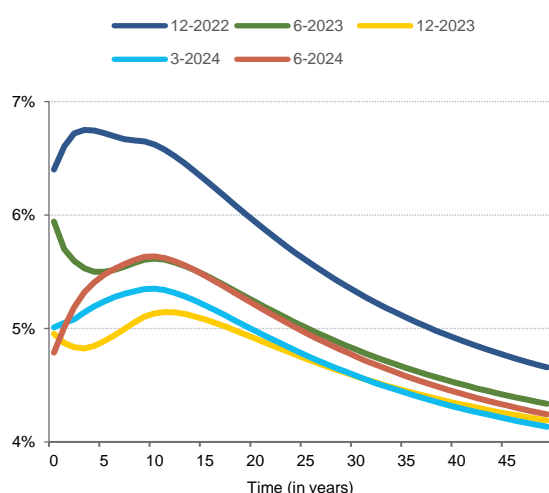
The role of biometric risk, i.e. typical insurance risk, was marginalised in the structure of the life insurance SCR and the risk profile has not changed. At the end of June 2024, the SCR amounted to 8.9 billion zlotys, only 0.2 billion zlotys more than at the end of 2023. The underwriting risk in life insurance required more than twice as much capital as market risk. The capital requirement in the underwriting risk sub-module amounted to 7.6 billion zlotys and in the market risk sub-module – to 3.6 billion zlotys (see Figure 3.3). Among underwriting risks, lapses of insurance agreements prevailed, generating three times as many capital needs as mortality risks. Morbidity was significantly less important while longevity risk played only a marginal role. Despite the reduction in the share of unit-linked (UFK) insurance in provisions and premiums, no significant differences occurred in the structure of insurance risk factors. New products were also not significantly affected by biometric risk.

Market risk generated the largest non-life insurance capital requirement. At the end of June 2024, it amounted to 16 billion zlotys, i.e. 1.7 billion zlotys more than at the end of 2023. The increase in the level of this risk was driven by market risk concentration sub-modules and, to a lesser extent, equity risk. This was driven by the higher market valuation of bank shares. The underwriting risk requirement

has also increased (by 0.8 billion zlotys to 14.7 billion zlotys), the main source of which was catastrophe risk (see Figure 3.4). For the companies, this means higher payouts at the time of excess claims.

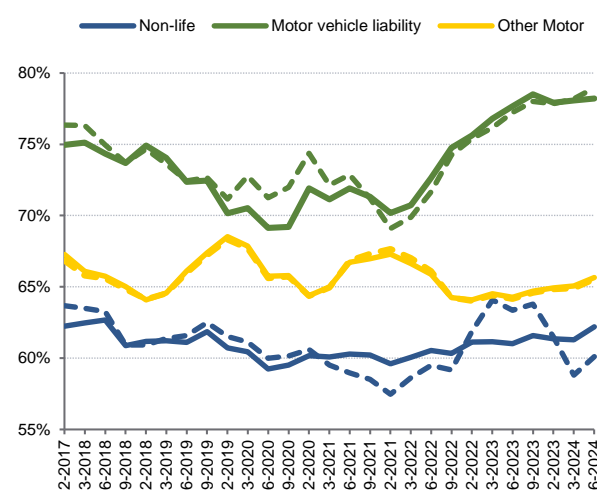
After the periods of decline, the term structure of the risk-free interest rate increased in the first half of 2024. Since the end of 2022, the risk-free rate has been declining, and the decline was driven by expected and then executed interest rate cuts. On the other hand, from the end of 2023 a reversal of the trend in the medium and long term was observed. At the end of the first half of 2024, the curve from year five onwards was at a level of the end of the first half of 2023, with differences only on the short-term (see Figure 3.5). The rise in interest rates contributed to an increase in the capital requirement on this account by 0.8 billion zlotys, which was also related to the extension of the duration of government bonds, from 4.9 to 5.2 years. As in previous years, insurance companies demonstrated a higher sensitivity to interest rate increases than to their decreases.

Figure 3.5. Term structure of the risk-free rate



Source: EIOPA

Figure 3.6. Loss ratio in selected business lines of non-life insurance



Note: The solid line marks the indicators on a net basis while the dashed line shows indicators on a gross basis.

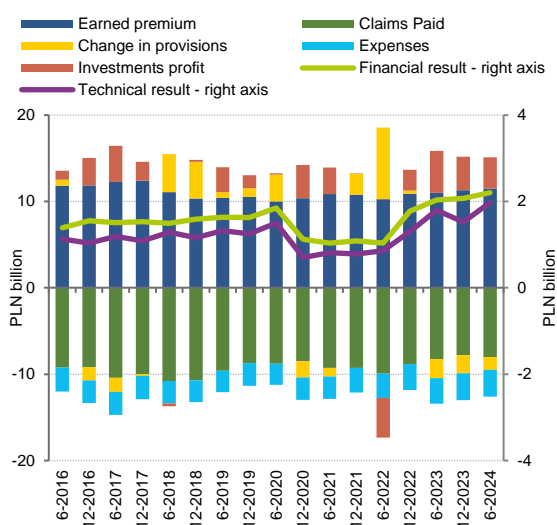
Source: UKNF.

In the first half of 2024, the insurance sector once again earned a record net profit (6.9 billion zlotys), or 1.2 billion zlotys more than in the corresponding period of the previous year. Non-life insurance companies recorded a larger share in this growth, gaining a profit of 4.9 billion zlotys, or 1 billion zlotys more than in the first half of 2023. The financial result of life insurance companies increased by 0.2 billion zlotys during this period, to less than 2 billion zlotys. The high profitability of life insurance and non-life sectors was generated by the largest players. Their contribution to profit, once again, was higher than their participation in the sector's premium or assets. Only five entities recorded a loss, the total value of which did not exceed 0.1 billion zlotys. The high result of non-life insurance was resulted from investment activities. In particular, revenue from investments in subsidiaries increased as a result

of high dividends. On the other hand, unrealised gains on investments decreased. Return on equity remained at record levels – 30.5% in life insurance and 19.7% in non-life insurance.

Rising premiums improved the technical result in life insurance. In the first half of 2024, technical profit amounted to 2.2 billion zlotys, i.e. 0.2 billion zlotys more than in the first half of 2023 (see Figure 3.7). Companies' premium revenue from insurance other than UFK increased by 0.4 billion zlotys, while the expenses of insurance activity increased by slightly over 0.1 billion zlotys and benefits, including the changes in provisions, remained at a similar level. The highest increase in the result (by 0.2 billion zlotys) was recorded in class 1 of life insurance (life and endowment insurance), reaching 0.8 billion zlotys in the first half of 2024. Despite the number of deaths returning to levels before the COVID-19 pandemic, companies did not reduce insurance prices, which were raised during the period of increased mortality. Class 5 (sickness and accident insurance) remained most effective, generating almost 50% of the result of the entire sector, with premiums below 40%. Moreover, revenue from investments, which make part of the technical account of life insurers, fell slightly.

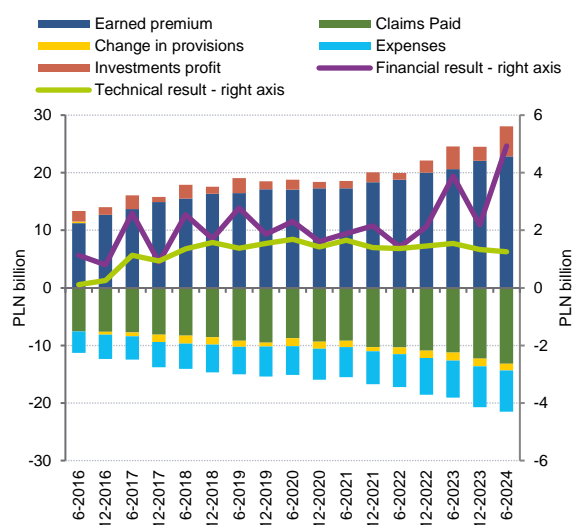
Figure 3.7. Selected items of the income statement in the half year – life insurance



Note: Data according to the statutory reporting.

Source: UKNF.

Figure 3.8. Selected items of the income statement in the half year – non-life insurance



Note: Data according to the statutory reporting.

Source: UKNF.

Despite the record financial result of non-life insurance, the technical result decreased slightly. In the first half of 2024, the companies generated a technical profit of 1.3 billion zlotys, or 0.3 billion less than in the corresponding period of 2023, despite a 12% increase in premium. However, the rate of change of the revenue was lower than the claims paid (see Figure 3.8). This was particularly evident in mandatory third-party liability insurance for motor vehicle owners, which suffered a loss of almost 0.2 billion zlotys, although showing a minor profit a year ago. Voluntary AC insurance was the most profitable class, generating a profit of 0.35 billion zlotys for the insurance companies. Contrary to third-party liability insurance, increases in claims and cost of activity from voluntary motor insurance were compensated by increases in premiums. Moreover, the lower technical result was recorded in insurance

of damages caused by natural disasters and other property damage (classes 8 and 9). These business lines are particularly vulnerable to events caused by atmospheric phenomena. Consequently, the September 2024 flood is expected to reduce the technical result in these insurance classes, which, however, should not lead to a loss in the sector as a whole.

The high concentration in certain segments of the life insurance market reduces price competition between entities, which may encourage further consolidation in the sector. After the COVID-19 pandemic domestic life insurance companies raised insurance prices at a level which was not proportional to the benefits paid. In the years 2020-2023, the total value of “excess” premiums⁹² relative to 2019 paid by policyholders amounted to 9.6 billion zlotys, and for benefits it amounted to 4.9 billion zlotys. At the same time, the European sector has seen changes in the opposite direction, with less premium collected and benefits increased on average. Moreover, in the years 2020-2023 the claim-to-premium ratio for insurance other than UFK remained at a low level (approx. 60%), as before the pandemic, and fell below 54% in the first half of 2024. Thus, the value for the customer deteriorated while the financial result of the insurance sector improved. On the other hand, the European sector saw an increase in the claim-to-premium ratio relative to pre-2019 levels, to almost 90%. Furthermore, the ratio of costs to premium collected in the domestic insurance sector remains twice as high as among the European life insurance companies. This is supported by the structure of the market and the comparative advantage resulting from economies of scale among the largest players. The high cost barrier may lead to further market consolidation under reduced price competition in certain segments of the sector.

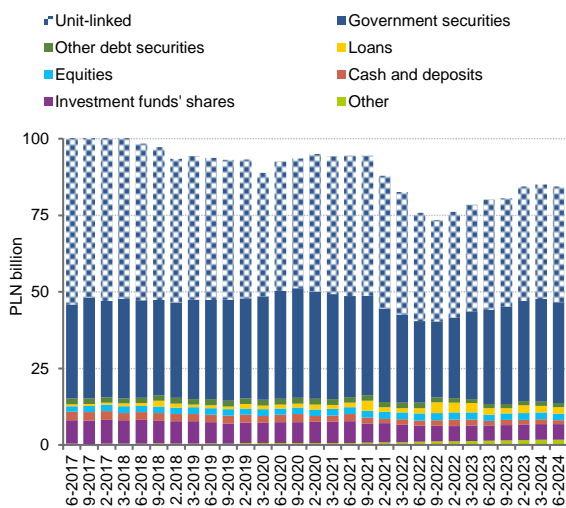
In the first half of 2024, the loss ratio in mandatory motor third-party liability insurance deteriorated (increasing to 79%) and significantly outperformed the loss ratio in other non-life insurance. As a result of rising car prices, the rate of growth in claims paid and costs incurred in mandatory motor insurance owners was still higher than premiums, leaving the business unprofitable. As a consequence, companies increased their negative technical result in this insurance class in the first half of 2024. Voluntary AC insurance also saw a faster increase in claims paid and costs, but the claims ratio remained stable at a level of 65.5% (see Figure 3.6). This allowed entities to compensate losses incurred under mandatory motor insurance. In the first half of 2024, the COR for non-life insurance, which measures the ratio of claims paid and expenses to premium earned, increased by 0.9 percentage points to 95%. Despite its deterioration, the efficiency of non-life insurance companies remained at a safe level.

The investment structure of the insurance sector has not changed significantly, with exposure to debt securities issued or guaranteed by the State Treasury prevailing. The value of these instruments in the portfolio increased by 0.8 billion zlotys (to 84.2 billion zlotys), mainly due to investments of non-life insurance companies. In non-life insurance, this exposure increased by 1.2 billion zlotys to 50.3 billion zlotys. On the other hand, life insurance (excluding unit-linked assets) saw a slight decrease, to 30.8 billion zlotys. Domestic Treasury securities accounted for approx. 93% of all Treasury debt instruments held in insurance companies' portfolios (see Figure 3.9 and Figure 3.10). Moreover, in the case of

⁹² It is the sum of the difference in premiums in each year compared to the 2019 premium.

Treasury-guaranteed bonds issued by PFR and BGK, the value of exposure fell slightly in life insurance companies to 11.4 billion zlotys, while in non-life insurance it rose to 14.1 billion zlotys.

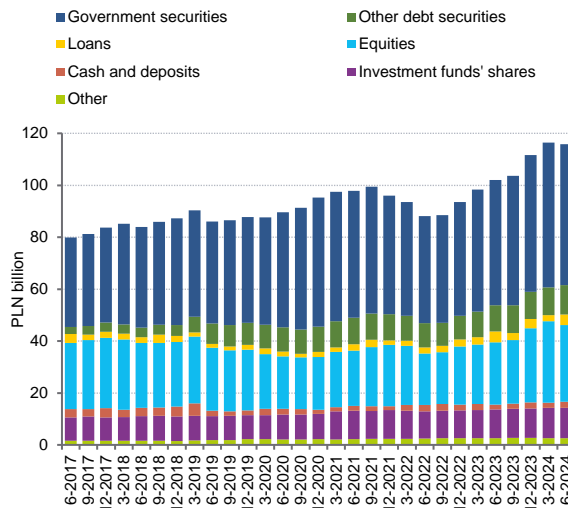
Figure 3.9. Investments and unit-linked assets – life insurance



Note: Government securities include securities issued or guaranteed by governments, central banks and supranational institutions.

Source: UKNF.

Figure 3.10. Investments – non-life insurance



Note: Government securities include securities issued or guaranteed by governments, central banks and supranational institutions.

Source: UKNF.

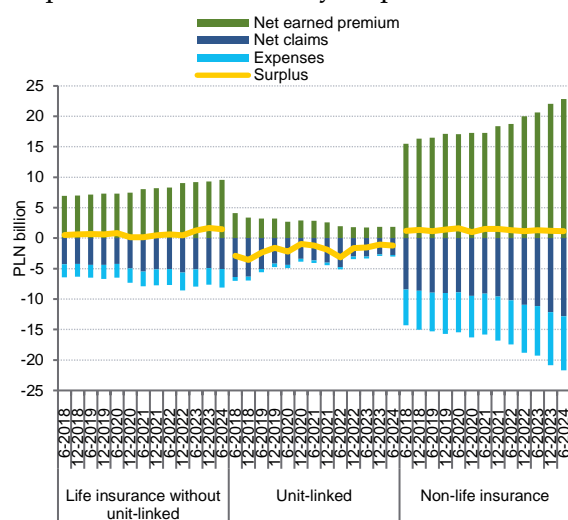
There was still a large scale of links between the insurance sector and domestic investment funds.

The exposure of insurance institutions to investment funds’ shares grew to 42.9 billion zlotys. However, since 2019, insurance companies have withdrawn a net of 16.7 billion zlotys from domestic investment funds, including 1.1 billion zlotys in the first half of 2024. The largest part of this exposure was generated by unit-linked (UFK) assets. As at the end of June 2024, the value of their exposure to investment fund shares amounted to 27.8 billion zlotys, of which almost 10 billion zlotys was held in closed-ended funds’ shares or units of open-ended funds applying a closed-ended fund policy . This way of investing household assets by insurance companies is at odds with the risk mitigation rules established for undertakings for collective investments. At the same time, the investment of unit-linked assets is incompatible with both the concentration limits and the catalogue of investments provided by European regulations for UCITS. The level of customer protection is therefore lower than in other institutions dedicated to non-professional investors.

In the first half of 2024, the liquidity position in life insurance (excluding UFK) was stable, with entities in this sector demonstrating the highest level of surplus revenue in the entire sector (1.5 billion zlotys). This was possible due to an increase in premiums (see Figure 3.11). For the past three quarters, the excess of this revenue over benefits paid and expenses in life insurance other than UFK has remained three times higher than in previous 5 years. Life insurance investments (excluding UFK)

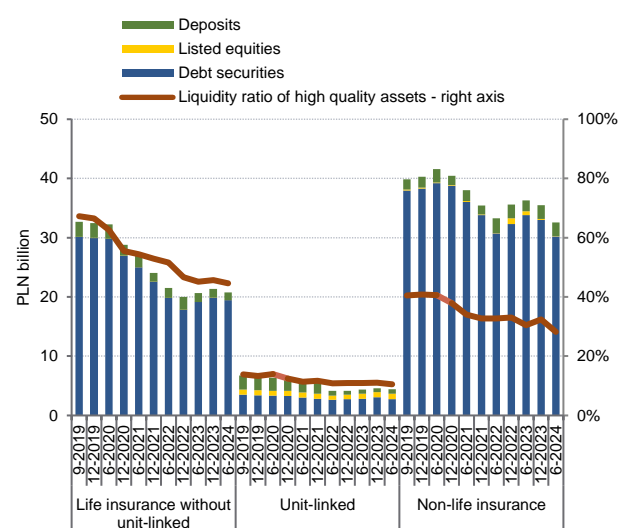
showed the highest liquidity ratio⁹³, which stood at 45% at the end of the first half of 2024 (see Figure 3.12). In the case of non-life insurance, the surplus value remained at a level similar to those observed in previous quarters. Despite higher claims and costs, the increase in premiums allowed the outflow of funds to be covered and kept the surplus at a positive level. In the first quarter of 2024, the ratio of liquid assets in non-life insurance decreased by 4 percentage points to 28%, driven by a decline in debt securities and listed shares of non-financial entities. Unit-linked assets were the least liquid, for which the liquidity ratio fell by 1 percentage point, to 10%.

Figure 3.11. Premium earned, claims, costs and surplus funds in the half-year period



Source: UKNF.

Figure 3.12. Structure of high quality liquid assets of the insurance sector



Notes: The methodology of determining the liquidity ratios is described in the footnote earlier in this chapter.

Source: UKNF.

In unit-linked life insurance, funds continued to outflow on a net basis. Compared to the corresponding period of the previous year, the shortfall in this class of insurance decreased to 0.9 billion zlotys, mainly due to a decline in payouts. The structure of outflow of funds from UFK has not changed, with redemptions prevailing, while the benefits due to endowment or other insurance event did not exceed 10%. Despite the product intervention⁹⁴ and the steadily declining premiums in this insurance class for several years, the companies kept the technical result at a stable level. At the end of the first

⁹³ The liquidity ratio measures the share of high quality liquid assets in the funds' total assets. The following assets have been classified as high-quality liquid assets: deposits and cash, securities issued by the central government, debt securities of central banks and shares listed on organised markets (excluding shares of financial institutions) recognised at half of their value.

⁹⁴ The KNF announcement regarding prohibitions on the marketing, distribution and sale of insurance investment products – life insurance contracts if linked to an insurance assets: https://www.knf.gov.pl/knf/pl/komponenty/img/Komunikat_KNF_dot_interwencji_produktovej_UFK.pdf.

half of 2024, it amounted to 315 million zlotys. By comparison, investment fund management companies managing assets more than 10 times the size of UFK funds during this period generated a profit of 394 million zlotys. Measures aimed at increasing the level of customer protection by limiting the range of products that are disadvantageous to investors⁹⁵ have therefore had minor effect on the drop in fees and costs borne by policyholders in products of an investment nature. This is because the product intervention, unlike the regulations decreasing the management fees charged on investment fund assets, covered only newly offered UFK contracts.

In the domestic insurance sector, the high share of expected profits included in future premiums (EPIFP) in own funds and the lack of a regulatory restriction on double gearing still persisted. The value of the EPIFP in life insurance at the end of 2023⁹⁶ amounted to 12.1 billion zlotys, more than a half of own funds. The capital raised by the inclusion of profits on future premiums has a limited loss coverage capacity as it may only absorb the effects of materialisation of the risk of insurance agreement lapses, despite its classification in the highest category of own funds. On the other hand, at the end of the first half of 2024 non-life insurance companies held participations in insurance entities and banks worth 27.6 billion zlotys which, in accordance with the applicable regulations, were not deducted from own funds. Consequently, this led to the double gearing of capital to cover the risks arising from the parent company's activities as well as those of the subsidiary. Taking these deductions into account would result in a 60 p.p. drop in the non-life insurance solvency ratio to 149%.

3.2. Investment funds

In the first half of 2024, investment funds saw significant inflows This however did not translate into an improvement in their liquidity ratios.⁹⁷ From January to June, a net amount of 23.3 billion zlotys flowed into the entities of the sector, i.e. 3 billion zlotys more than in the entire 2023. These inflows almost entirely concerned open-ended funds^{98, 99}. Investors purchased mainly units of debt funds (see Figure 3.15), exhibiting the highest liquidity ratio (see Figure 3.13 and Figure 3.14). The increase in demand for units of those entities resulted in their significant investments in debt instruments, including Treasury bonds, which make up the bulk of their liquid assets. The accompanying investments in less liquid securities and the lack of rebuilding their liquidity cushion in the form of bank

⁹⁵ Those with the rate of return lower than 50% of the risk-free rate.

⁹⁶ Data for the end of the first half of 2024 is not available.

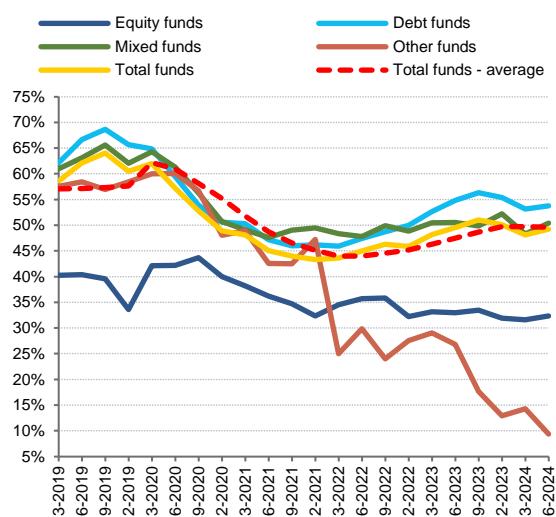
⁹⁷ The liquidity ratio measures the share of high quality liquid assets in the funds' total assets. The following assets have been classified as high-quality liquid assets: bank deposits, debt securities issued by the central government and central banks and shares listed on organised markets (excluding shares of financial institutions) recognised at half of their value.

⁹⁸ Open-ended funds include UCITS and open-ended alternative investment funds (AIFs).

⁹⁹ The balance of net inflows to closed-ended funds amounted to 0.3 billion zlotys in the analysed period.

deposits resulted in their liquidity ratios remaining at levels similar to those observed at the end of 2023, i.e. still significantly lower than before the outbreak of the COVID-19 pandemic.

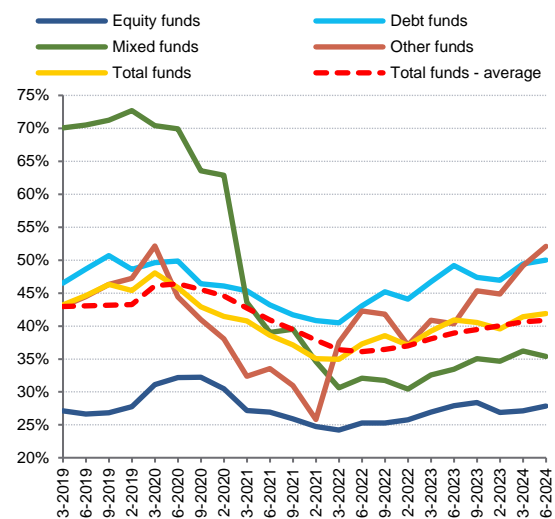
Figure 3.13. Liquidity coverage ratio in UCITS



Note: The average shown in the figure is a moving average of four preceding quarters.

Source: NBP.

Figure 3.14. Liquidity coverage ratio in open-ended AIFs



Note: The average shown in the figure is a moving average of four preceding quarters.

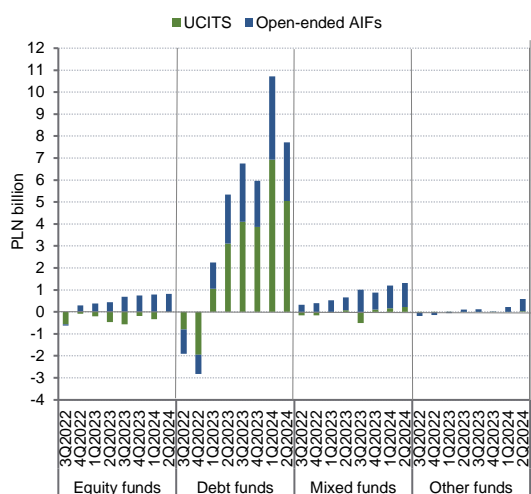
Source: NBP.

Half of the open-ended fund population reported a decline or no change in the level of the liquidity ratio. The distribution of this ratio (see Figure 3.16) indicated that a large value gap between UCITS and open-ended AIFs persists, with still relatively more entities displaying very low parameters in the open-ended AIF group. In addition, the liquidity ratio calculated for the first quartile of this population decreased from 11.5% at the end of December 2023 to 9.2% at the end of June 2024. Entities with such a low ratio included mainly funds investing almost exclusively in foreign investment funds.¹⁰⁰ In doing so, they declared that they could repurchase units on demand on any valuation day and were therefore exposed to liquidity risk. However, funds offering pension products, in which the risk of significant redemptions is generally limited, prevailed. Some of the entities showing low levels of high-quality liquid assets used terms in their names indicating the safe nature of these investments, which may have misled investors.¹⁰¹

¹⁰⁰ In accordance with the methodology adopted in this chapter, shares are not included in the category of high-quality liquid assets.

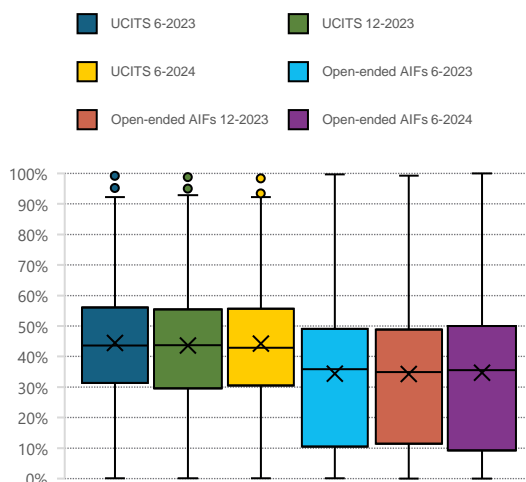
¹⁰¹ See also previous issues of the report. The need to ensure consistency between the name of the investment fund and its actual investment policy has also been highlighted by the Office of the Polish Financial Supervision Authority. See Position of the Office of the Polish Financial Supervision Authority on information published by investment funds, 14 February 2024.

Figure 3.15. Balance of inflows to open-ended funds



Source: NBP.

Figure 3.16. Distribution of the liquidity ratio for open-ended funds



Notes: The edges of the box mark the first and the third quartile, a line inside the box marks the median, and an "x" symbol – the average value. The vertical line is determined between the minimum and maximum value, after elimination of outliers, while points outside the line are regarded as outliers. The method of determining the liquidity ratios is described in the footnote earlier in this chapter.

Source: NBP.

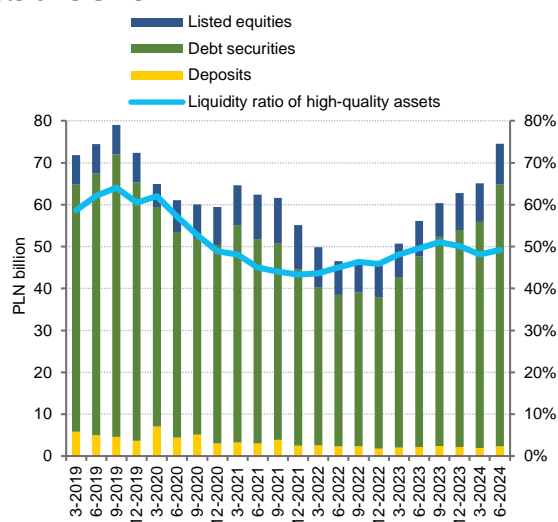
Cash held by open-end funds in the form of bank deposits was not steadily replenished. Amid a significant net inflow to these entities in the first half of 2024, their total deposits increased by less than 0.2 billion zlotys, which – compared to the balance of inflows – accounted for less than 1%. As a consequence, the ratio of deposits to total assets in open-ended funds at the end of June 2024 reached another all time low and stood at 1.6% in UCITS and 1.7% in open-ended AIFs. Debt funds, which manage the largest portion of assets, displayed the lowest levels of funds in bank accounts (1.0% of assets in UCITS and 1.2% in open-ended AIFs).

In the first half of 2024, investment funds purchased more domestic Treasury bonds than throughout 2023. The balance of transactions in these securities amounted to 14.6 billion zlotys (11.5 billion zlotys in 2023), with demand coming mainly from open-ended funds due to the inflows they recorded. On a net basis, these entities purchased domestic Treasury bonds for the amount of 15.7 billion zlotys (at the same time, closed-ended funds were net sellers of these instruments). Over the past six months, domestic government bonds held by open-ended funds increased by more than 17 billion zlotys and stood at 84.6 billion zlotys at the end of June¹⁰² (see Figure 3.17 and Figure 3.18). Funds purchased both fixed and floating rate instruments, with a higher balance of transactions in the former category. In addition, they expanded the catalogue of fixed-coupon instruments they hold with a new series of inflation-

¹⁰² Of which 53.8 billion zlotys for UCITS and 30.8 billion zlotys for open-ended AIFs.

indexed bonds issued in June 2024¹⁰³, acquiring them on a net basis for an amount of nearly 1 billion zlotys (which accounted for approx. 40% of the nominal value of the issue). These were mainly included in the balance sheets of funds offering pension products. The growing importance of fixed coupon bonds was also accompanied by a change in the duration of this part of the Treasury portfolio (from 4.7 at the end of December 2023 to 5.0 at the end of the first half of 2024).

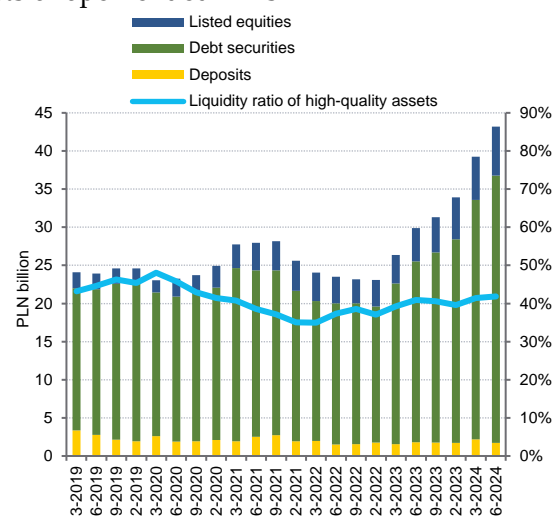
Figure 3.17. Structure of high quality liquid assets of UCITS



Notes: The method of determining the liquidity ratios is described in the footnote earlier in this chapter.

Source: NBP.

Figure 3.18. Structure of high quality liquid assets of open-ended AIFs



Notes: The method of determining the liquidity ratios is described in the footnote earlier in this chapter.

Source: NBP.

In the first half of 2024, investment funds returned as buyers to the State Treasury-guaranteed bond market.¹⁰⁴ During six months, the balance of transactions in State Treasury-guaranteed bond amounted to nearly 5 billion zlotys and their outstanding amount rose from 20.8 billion zlotys at the end of 2023 to 26.3 billion zlotys at the end of June 2024. This represented nearly 1/3 in relation to the value of domestic Treasury bonds held. The bonds purchased in the reported period mainly included fixed-rate securities issued in foreign currencies. The highest funds' demand received BGK bonds for the COVID-19 Response Fund. The balance of transactions in these securities amounted to 4 billion zlotys, while their main purchasers were open-ended funds, which also held the largest portfolio of these instruments (see Figure 3.19).

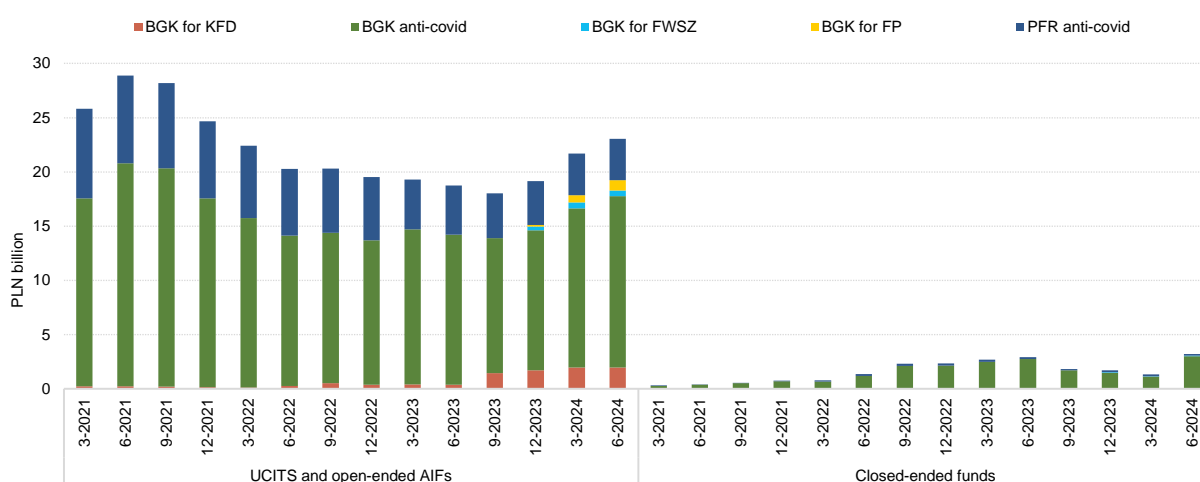
Open-ended funds further increased their exposure to domestic banks by significantly expanding portfolio of their debt securities. From December 2023 to the end of June 2024, UCITS and open-ended AIFs bought, on a net basis, such instruments for the amount of approximately 4 billion zlotys, while

¹⁰³ In August 2023, the last series of such bonds available on the market matured. The funds held such instruments to maturity to an amount of approx. 4 billion zlotys.

¹⁰⁴ I.e. BGK bonds issued to: the National Road Fund (KFD), the Armed Forces Support Fund (FWSZ), the Aid Fund (FP) as well as the PFR and BGK bonds for the COVID-19 Response (anti-covid) Fund.

their outstanding amount increased from 13.1 billion zlotys to 17.7 billion zlotys (see Figure 3.20). Nearly a quarter of the value of the instruments purchased during the six-month period consisted of covered bonds and more than a half of the senior non-preferred bonds, which, together with subordinated bonds, accounted for the bulk of this portion of the open-ended funds' debt portfolio. The interlinkages between closed-ended funds and the domestic banking sector were of a different nature, being formed primarily by purchased receivables and deposits. At the end of June 2024, their value in the balance sheet of closed-ended funds amounted to 14.8 billion zlotys, which accounted for approximately 70% of their exposure to the domestic banking sector.

Figure 3.19. Exposure of investment funds to State Treasury-guaranteed bonds

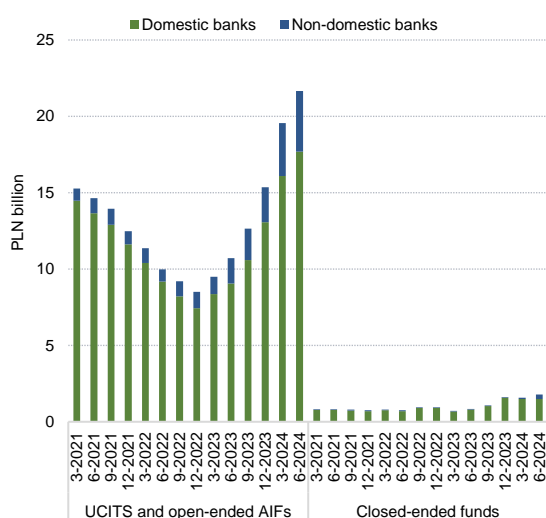


Note: BGK for KFD – BGK bonds issued for the National Road Fund, BGK for FWSZ – BGK bonds for the Armed Forces Support Fund, BGK for FP – BGK bonds for the Aid Fund, BGK anti-covid and PFR anti-covid – PFR and BGK bonds for the COVID-19 Response Fund.

Source: NBP.

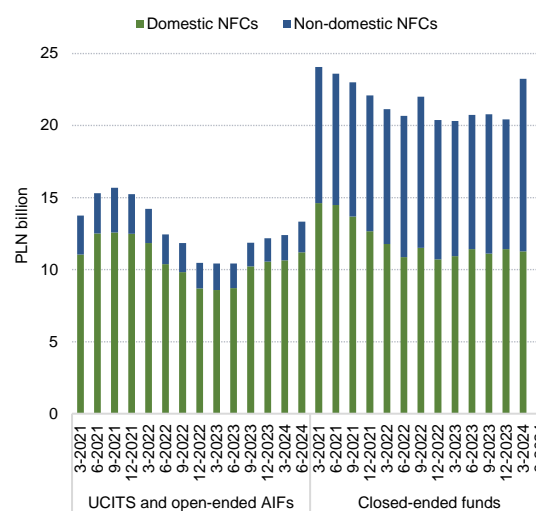
At the end of June 2024, open-ended funds’ holdings of domestic corporate debt instruments almost equated with the portfolio of such instruments managed by closed-ended funds. This was due to continued consistent net sales of these securities by closed-ended funds and another spell of their purchase by open-ended funds. In the period from January 2019 till the end of June 2024, closed-ended funds sold them (on a net basis) for nearly 8 billion zlotys, while open-ended funds acquired them (on a net basis) for approximately 3.6 billion zlotys. In doing so, closed-ended funds exhibited a much larger portfolio of instruments issued by foreign companies (see Figure 3.21).¹⁰⁵

¹⁰⁵ The portfolio increase of these instruments in the first quarter of 2024 was mainly due to investment decisions by individual entities.

Figure 3.20. Exposure of investment funds to banks' debt instruments

Note: Treasury-guaranteed BGK bonds were excluded from the category of "bank debt securities".

Source: NBP.

Figure 3.21. Exposure of investment funds to debt instruments of non-financial corporations

Note: NFCs – non-financial corporations.

Source: NBP.

With the inflow of funds into investment funds, the financial results of investment fund management companies improved significantly. Their net profit in the first half of 2024 was nearly 44% higher than a year earlier.¹⁰⁶ Their primary source of income invariably stemmed from the management fees. The growth rate of their equity capital was much lower (11.5%) and, although its value still exceeded the minimum level of equity required by law by more than three times, as a proportion of the funds' net assets it was low and did not exceed 0.6%.

In the first half of 2024, investment funds used higher leverage¹⁰⁷ than at the end of 2023. The ratio of total assets to net assets increased by 2.4 percentage points and stood at 109.1% at the end of June 2024 (see Figure 3.22). At the same time, the level of this indicator was close to that observed in the euro area (108.8%), with the differing size of leverage applied by individual fund types in Poland and euro area zone. Among domestic entities, UCITS consistently demonstrated the highest leverage (115.2% in Poland and 106.9% in the euro area, respectively), while in euro area – funds that are non-compliant with UCITS Directive¹⁰⁸ (105.9% in Poland and 110.9% in the euro area, respectively). At the end of June

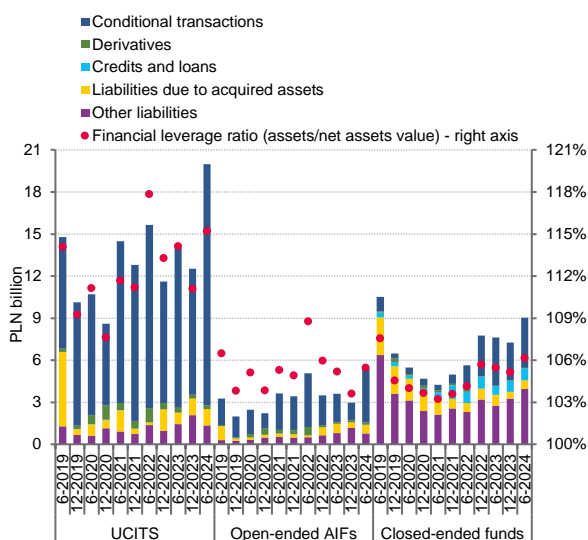
¹⁰⁶ In terms of financial results, the investment fund management companies' sector was highly concentrated. Five entities earned 75% of the net profit.

¹⁰⁷ The leverage is expressed as the ratio of total assets to net assets of the funds.

¹⁰⁸ Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities ("UCITS Directive").

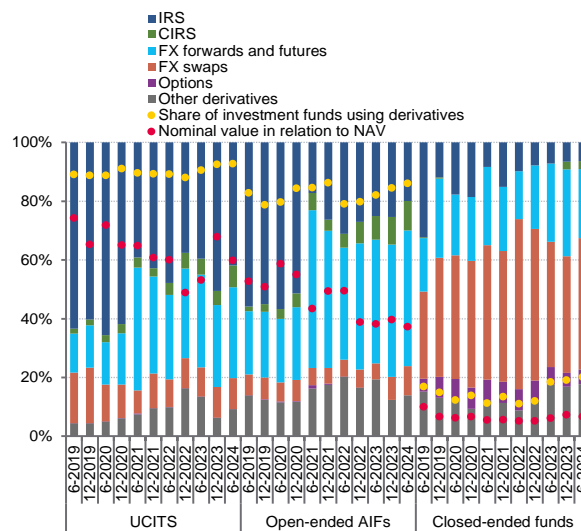
2024, none of the domestic open-ended funds had loan liabilities.¹⁰⁹ On the other hand, conditional transactions were an important source of leverage in UCITS and open-ended AIFs, accounting for 86% and 71% of their liabilities, respectively. In relation to net assets, UCITS used this type of funding more than European UCITS-complaint funds (see Figure 3.24).

Figure 3.22. Structure of liabilities and leverage in the sector of investment funds



Source: NBP

Figure 3.23. Structure of derivatives used by investment funds by nominal value



Source: NBP

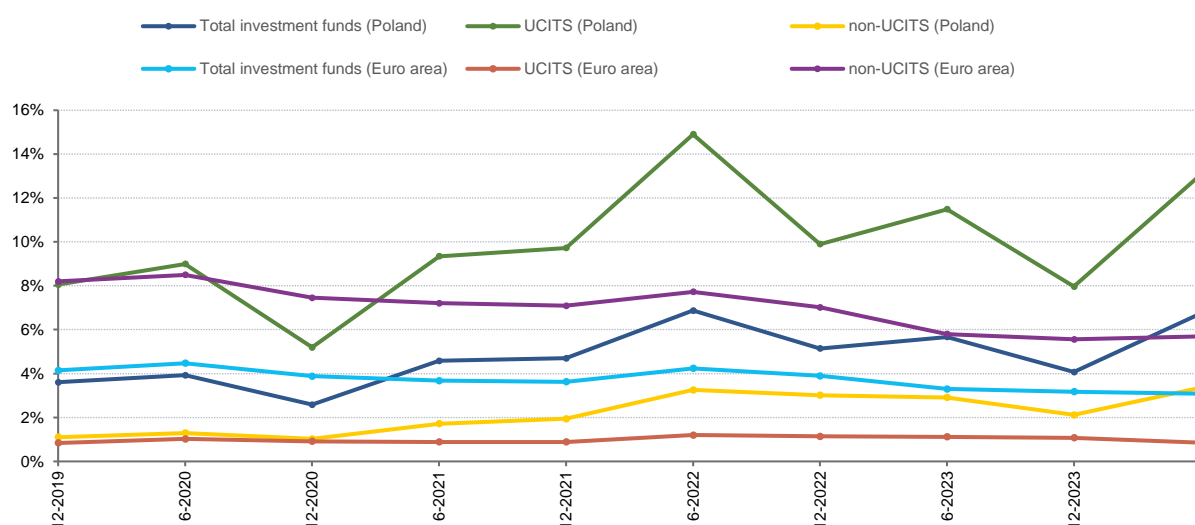
Despite the increase in investment funds' exposure to derivatives, the synthetic leverage ratio¹¹⁰ decreased in the first half of 2024. The total nominal value of these instruments in the entities' portfolios increased by 5.1 billion zlotys to 124.8 billion zlotys (33.1% of net assets). As in previous periods, open-ended funds were more active in the derivatives market than closed-ended funds. Such instruments were included in the portfolio of approximately 93% of UCITS and 86% of open-ended AIFs and in one fifth of all closed-ended funds¹¹¹ (see Figure 3.23). The increase in the nominal value of these instruments referred to open-ended AIFs and UCITS in particular – by 3.6 billion zlotys and 2.0 billion zlotys, respectively. On the other hand, closed-ended investment funds reduced their exposure by 0.5 billion zlotys. The derivative instruments most commonly found in the portfolio of open-ended funds were exchange rate forward contracts, and in closed-ended funds – equity futures. Taking into account the nominal value, interest rate swaps (IRS) dominated in UCITS, while exchange rate forward contracts and FX swaps dominated in open-ended AIFs and closed-ended funds, respectively.

¹⁰⁹ The provisions of the Act on Investment Funds and Management of Alternative Investment Funds stipulate that the total value of loans and borrowings by UCITS may not exceed 10% of their net asset value at the time the loan or credit agreement is concluded. The maximum term of repayment of the liability cannot exceed 1 year.

¹¹⁰ Synthetic leverage was defined as the ratio of the nominal value of derivative instruments to the net assets of an entity.

¹¹¹ The share measured by net assets of investment funds.

Figure 3.24. The ratio of investment funds' liabilities due to conditional transactions and loans to NAV in Poland and in the euro area



Source: NBP, ECB.

The asset liquidity of open-ended funds with the highest leverage levels was still above average. Approximately 64% of all UCITS and open-ended AIFs that stood out in the market in terms of the size of leverage used had at the same time higher liquidity ratios than the average for the particular types of funds (see Figure 3.25 and Figure 3.26). Debt securities prevailed in the portfolio structure of those institutions, particularly of central government institutions. Entities used their securities holdings to enter into repurchase transactions to increase their potential for profit. At the same time, such a strategy had the effect of increasing the risk of losses and the volatility of shares valuation. Households constituted the prevailing group of participants in these funds. A significant deterioration in market conditions affecting a significant decline in investment funds shares valuation could prompt some investors to sudden withdrawals, which in turn may result in increased liquidity needs for the funds and, in extreme cases, could lead to the need to suspend redemptions.

Despite the decline in the sector's synthetic leverage ratio, some investment funds were characterised by an above-average ratio of nominal value of derivatives to NAV.¹¹² The first group of entities with the highest synthetic leverage ratios were debt funds using mainly interest rate swaps (IRS). Another group was represented by institutions that invested most of funds in foreign markets (mainly equity and mixed funds). They used exchange rate forward contracts and fx swaps to mitigate the negative impact of exchange rate fluctuations on investment performance. A small group of entities distinguishing in terms of the scale of their use of derivatives were also those synthetically replicating

¹¹² The Act on Investment Funds and Management of Alternative Investment Funds specifies that an UCITS may invest in derivatives, provided that the purpose of these transactions is to mitigate investment risk or to ensure efficient management of the investment portfolio.

selected stock market indices. However, the share of these entities in the net assets of the sector as a whole was insignificant and did not exceed 0.5%.

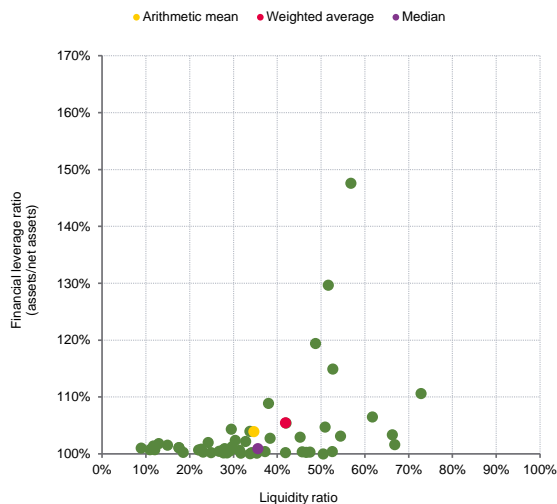
Figure 3.25. Distribution of the liquidity and leverage ratio in UCITS at the end of June 2024



Note: The entities are divided into groups by the leverage ratio, in descending order. Each blue dot represents the average value of the leverage ratio and the liquidity ratio for a given group (averages weighted by the net asset value of the entities included in each group).

Source: NBP

Figure 3.26. Distribution of the liquidity and leverage ratio in open-ended AIFs at the end of June 2024



Note: The entities are divided into groups by the leverage ratio, in descending order. Each green dot represents the average value of the leverage ratio and the liquidity ratio for a given group (averages weighted by the net asset value of the entities included in each group).

Source: NBP

4. Systemic risk assessment

*The assessment of systemic risk in this Report takes into account two aspects of that risk – **cyclical and structural**. The **cyclical risk** stems from periodical changes in its intensity throughout the financial cycle and it is largely tied to the risk of excessive debt growth and excessive leverage and instability of the funding model. The **structural aspect** results from interconnectedness across institutions, exposure concentration and from the structure of the financial system's incentives that affect how participants in this system behave.*

Poland's banking sector remains resilient to the effects of materialisation of potential shocks. Banks demonstrate high loss-absorption capacity even in the extremely pessimistic scenarios of macroeconomic stress tests. Legal risk arising from FX housing loans remains the major source of burden on banks' earnings.

Traditional bank risks, i.e. credit risk, market risk, interest rate risk, have not posed threats to domestic financial stability for a considerable time (see Chart 4.1). Two types of exposures with the largest share in banks' assets in Poland, namely (i) the portfolio of Treasury bonds and State Treasury-guaranteed bonds and (ii) exposures to the residential real estate market, have to be monitored but do not generate systemic risks.

Liquidity risk is low, which stems not only from the high share of liquid assets in bank portfolios, but primarily from stable deposits in the Polish banking system. Due to the specific preferences of depositors (safety, liquidity) and limited supply of alternative products to bank deposit holders, the risk of banks' funds flowing out of the whole banking sector (and not individual banks) is low.

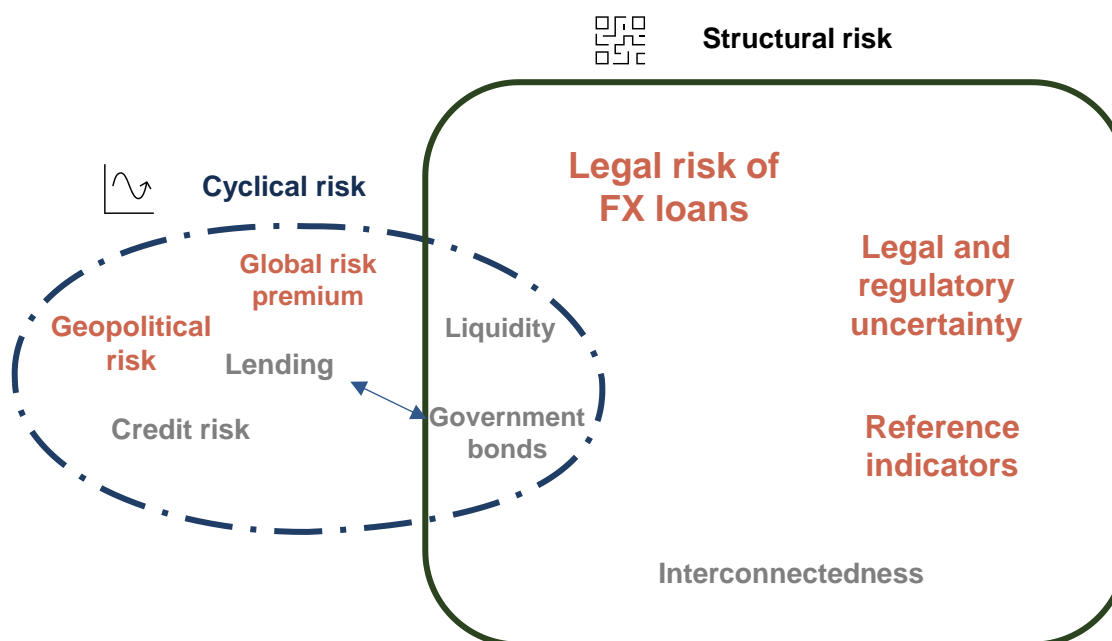
Contagion risk in the Polish financial system is also low. Stress tests conducted by NBP do not indicate banks with significant weaknesses and at the same time – given their size and interlinkages – that could negatively affect other entities. Financial interlinkages between the banking sector and non-bank financial institutions also remain moderate, and risk in the latter is not systemic but only sectoral.

The decline of banking credit share in funding provided to the economy is driven by demand-side factors, and banks report no capital or liquidity constraints for credit growth. The growth of excess capital arising from high nominal profits creates space for lending expansion even in pessimistic macrofinancial scenarios as long as there is demand from the real economy.

Recent falling loan demand results from (i) higher macroeconomic uncertainty, (ii) substitution of bank credit with public aid funds received by enterprises during the pandemic and (iii) higher costs of funding due to interest rate hikes. On the supply side, the 2016 tax on certain financial institutions reduced, *ceteris paribus*, relative yields on loans, which increases banks' propensity to hold a larger portion of assets in the form of Treasury bonds, which are excluded from the tax base. At the same time, partial tax cost transfer onto borrowers resulted in loan margins rise, which could have additionally curb loan demand.

Risk associated with legal uncertainty and its future cost remains the key challenge to financial stability assessment. The disproportion of sanctions and burdens imposed on banks, observed in recent years, in connection with the support and protection of borrowers as financial service consumers, negatively affects the conditions in which banks carry on their business. This may impinge both on the financial condition of the sector and the credit market and, consequently, may limit the range of financial services offered to customers, especially households.

Chart 4.1. Systemic risk areas in Poland



Notes: The issues that represent risks or challenges to financial stability are marked in red. The areas that do not generate such risks are marked in grey.

Source: NBP.

4.1. Structural risk: elevated but poses no threat to financial stability

The structural dimension of systemic risk has been the main area of challenge to Poland's financial stability for a considerable time. Its major component is legal risk associated with FX housing loans. However, broad regulatory stability, among other things, related to consumer protection on the financial market, has recently gained in importance.

4.1.1. Legal risk of FX housing loans: still high but effectively managed by banks and constituting increasingly less burden

Legal risk of FX housing loans remains the main source of burden on the financial condition of banks but the banking sector's most difficult period is behind it. By the end of the first half of 2024, the total costs due to legal risk amounted to around 85 billion zlotys. The size of future risk provisions will remain significant but will be substantially lower than in the past.

The further provisioning for legal risk of FX housing loans should not put at risk the stability of the banking sector and its capacity to finance the economy. In the scenario that assumes that all loans on banks' balance sheets are subject to judicial proceedings or a settlement and around 50% of repaid loans are subject to judicial proceedings, the banking sector will remain resilient. Should legal risk provisions be created over the next two years, the sector concerned will still hold excess capital. This would happen amid adverse macrofinancial conditions (see Chapter 2.8).

4.1.2. Consumer protection on the financial market: *lack of proportionality enhances risk in the system*

For a considerable time, financial stability assessment in Poland has been increasingly affected by regulatory instability and uncertainty related to how provisions on consumer protection are interpreted as well as court jurisprudence on the matter. The limited predictability of the regulatory environment and a lack of adequate proportionality of sanctions imposed on banks makes it difficult to estimate the financial effects of loan agreements and assess the risks and profitability of specific credit products. This may reduce the range of financial services offered to retail clients.

Box 4.1. Questioning the use of the WIBOR benchmark in consumer loan agreements

In connection with one of the pending proceedings against the banks,¹¹³ in May 2024 the Regional Court in Częstochowa referred four questions to the CJEU for a preliminary ruling. The questions concerned the assessment of the abusive character of floating interest rate clauses and the use of the WIBOR benchmark in setting the floating interest rate in the context of certain provisions of Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts.¹¹⁴ The rulings concerning the first two questions are supposed to determine whether it is possible, on the basis of the Directive and the Polish legislation, to examine if contractual clauses concerning the floating interest rate are abusive. The third question concerns the potential inconsistency of such clauses with the good faith requirement, which would result in a disequilibrium in regard to the rights and obligations of the parties under the agreement. The fourth question relates to the potential consequences if such clauses were found to be abusive.

¹¹³ According to the information provided by the Polish Banks Association in August, at the end of May 2024, 1,100 actions concerning PLN loans were pending in courts, twenty-four final judgements had been entered, all of which were in favour of the banks (<https://strefainwestorow.pl/artykuly/gospodarka/20240802/wibor-rozprawy-sadowe#:~:text=ZBP%20poinformowa%C5%82%2c%20%C5%BCe%20obecnie%20w%20s%C4%85dach%20toczy%20si%C4%99%2czapad%C5%82y%2024%20wyroki%2c%20wszystkie%20z%20korzy%C5%9Bci%C4%85%20dla%20bank%C3%B3w>).

¹¹⁴ Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts (OJ L 95, 21.4.1993, p. 29–34, as amended).

In September 2024, the Financial Stability Committee published a press release concerning the use of the WIBOR benchmark, firmly upholding the assessments from December 2022 and March 2023 that there were no legal or economic grounds for negating the correct determination of this benchmark.¹¹⁵ WIBOR is a critical benchmark according to BMR, provided by an ESMA-registered administrator on the basis of the decision of the KNF, which confirmed that all the requirements of the BMR regulation have been met with regard to the interest rate benchmarks. This provides adequate protection against possible abuse. The authorisation that the supervisory authority granted to GPW Benchmark SA in December 2020 confirms that the WIBOR calculation methodology is consistent with the requirements of the BMR and ensures that the benchmark is robust and reliable. At the same time, the provisions of the Act on mortgage credit, implementing the EU directive, clearly state that if the parties did not agree on a fixed interest rate on the mortgage credit, the interest rate is to be set with the use of a benchmark in the sense of the BMR. Therefore, all the conditions set by the Polish and the European law permitting the use of the WIBOR benchmark in client agreements have been satisfied and there are no grounds for the CJEU or common courts to examine such agreements on the basis of Directive 93/13.

4.1.3. Benchmark reform on the Polish financial market: *uncertainty about the direction of benchmark reform*

The Steering Committee of the NWG selected a proposed index from the WIRF group as the ultimate interest rate benchmark to replace the WIBOR, which reduces the uncertainty related to the benchmark reform in Poland. The uncertainty may reduce the propensity of financial institutions to offer floating rate-based products to households, and at the same time increase prices or limit availability of certain services. In October 2024, the Steering Committee of the NWG conducted an additional round of public consultations regarding four proposed indices from the WIRF group, following which, in December 2024, the Steering Committee composed of representatives of the ZBP, the banking sector, the NBP, the Ministry of Finance, the KNF and the BFG, adopted a proposal for an index representing the market for unsecured O/N deposit transactions concluded by fixing participants with banks and other financial institutions, i.e. insurance companies, pension funds, investment funds and credit unions. The end of 2027 remains the deadline for conversion of benchmarks. However, at the current juncture some intermediate dates cannot yet be set to indicate how the reform is progressing and show

¹¹⁵ The press release by the FSC is accessible at: <https://nbp.pl/en/press-release-of-the-financial-stability-committee-concerning-the-use-of-the-wibor-benchmark/>.

the pace of its implementation. Until the ongoing reform is completed, WIBOR remains the critical benchmark on the domestic financial market and may be used within the meaning of the BMR.¹¹⁶

Box 4.2. Interest rate benchmark reform in Poland

The round of public consultations on a review of alternative proposals of the risk free rate-type¹¹⁷ interest rate indices commenced in May 2024. The following were assessed during the process: the WIRON benchmark, WIRF and WRR index proposals¹¹⁸ (also reviewed and assessed in the first round of consultations in 2022) as well as two new proposals, WIRON+ and WIRF+ (i.e. WIRON and WIRF, respectively, extended to include data on transactions with so-called public institutions¹¹⁹). Twenty eight entities such as universal banks, including mortgage banks, leasing companies, factoring companies, insurance companies, investment funds and associations of financial institutions participated in the consultations which were completed on 1 July 2024. According to the responses, the WRR index proposal most frequently met the criteria of RFR index evaluation and received the highest score in almost all categories of the assessment. The WIRF+ and WIRF index

¹¹⁶ In December 2020, the KNF authorised GPW Benchmark to carry on activities as an administrator of the critical interest rate benchmark, thus confirming that GPW Benchmark's methodology of determining the WIBOR is compliant with the BMR and ensures that this benchmark is robust and reliable. Moreover, in June 2023 the supervisory authority released a communication on the assessment of the capacity of the WIBOR critical benchmark to measure the underlying market and economic reality for which purpose it has been designated. According to the KNF's assessment, the WIBOR benchmark properly responds to changes in liquidity condition, the central bank's interest rates, and economic reality.

¹¹⁷ The consultation document is available at https://www.knf.gov.pl/en/?articleId=89396&p_id=19.

¹¹⁸ The WIRON benchmark represents the market for unsecured O/N deposit transactions made by data contributors with other banks, non-monetary financial institutions, other financial institutions and large enterprises. The WIRF index proposal represents the market for unsecured O/N deposit transactions made by data contributors with other banks, non-monetary financial institutions and other financial institutions. On the other hand, WRR represents the market for repo and SBB overnight transactions made by data contributors with other banks and non-monetary financial institutions.

¹¹⁹ The category includes the Social Insurance Institution (ZUS), the Social Insurance Fund, the Demographic Reserve Fund and the Bridging Pension Fund.

proposals also received high ratings. The WIRON benchmark and the WIRON+ index proposal received the lowest marks.

After analysing the results of the consultations and conducting additional analysis, in early October 2024 the Steering Committee of the NWG decided to launch an additional round of public consultations in which four index proposals from the WIRF family were included. Those proposals were: WIRF, WIRF+, WIRF– and WIRF+/-, and the deadline for this round of consultations was set at 31 October 2024.¹²⁰ In its press release, the Steering Committee of the NWG indicated that the WIRON benchmark (and WIRON+ index proposal) was not selected for additional consultations because, *“in the course of observing the index, it was possible to notice its highest volatility in relation to other analysed indices and the resulting lowest probability of creating a liquid derivatives market.”*¹²¹ It also followed from the press release that with a view to meeting the deadline set for the end of 2027 for the conversion of benchmarks in Poland, it was not possible to take into account the WRR index proposal in the additional round of consultations, because in the course of work, *“the need has been identified to carry out too many multifaceted activities of a very diverse nature (both legal, systemic and operational), the implementation of which, both in terms of duration and expected effects, is difficult to predict.”* In December 2024, the Steering Committee of the NWG, taking into account the responses submitted during the additional round of consultations, selected a proposal for an index that would replace the WIBOR benchmark. WIBOR may be still used in financial contracts and financial instruments until the reform has been completed.

At the same time, the Steering Committee of the NWG indicated that work should continue on strengthening the repo market, which in the future will allow to apply an index for conditional transactions as an alternative interest rate benchmark, and ultimately also to potentially develop a regulated data benchmark within the meaning of the BMR.¹²² In this context, it would be particularly significant for market participants to gradually move away from SBB transactions in favour of repo transactions, which are widely used on developed markets, and also to gradually transfer activity from the OTC market to a MTF (e.g. Treasury Bondspot Poland platform). The concentration of

¹²⁰ WIRF– refers to the WIRF index proposal, after excluding data on transactions with so-called other financial institutions (i.e. non-monetary financial institutions other than investment funds, insurance institutions, pension institutions and money market funds). On the other hand, WIRF+/- refers to the WIRF index proposal, after excluding data on transactions with other financial institutions, but including data on transactions with public institutions.

¹²¹ Press release available at https://www.knf.gov.pl/en/?articleId=90831&p_id=19.

¹²² Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014 (OJ L 171 29.6. 2016, p. 1, as amended).

the domestic conditional transactions market on repos, which would be based on broadly accepted (including by market participants outside of Poland) standard documentation, concluded at trading systems and subject to central clearing, would bring the Polish market closer to standards observed on many foreign markets. Moreover, the shift in the liquidity management model by banks, (i.e. moving away from unsecured interbank deposits towards repos) would support financial stability and enhance banking sector resilience to financial market turmoil. At the same time, this would implement the postulates contained in the Capital Market Development Strategy and coincide with actions scheduled in the document.

4.1.4. Treasury bond portfolio: *share in banks' assets is higher but sensitivity remains limited*

The ratio of loans in the economy to the value of the portfolio of Treasury bonds in the banking sector is steadily declining. The ratio of the value of the banking loan portfolio to the Treasury bond portfolio has dropped from over 5 in 2013 to less than 2 in 2024 (see Figure 4.1). This is a very significant change, especially when compared to the continued relatively stable level of banking sector assets relative to GDP.

The decline in the loan to the Treasury bond ratio has been driven by both demand-side and supply-side factors. On the demand side, macroeconomic uncertainty, which has been elevated since the pandemic, and public aid for the enterprise sector under the shielding measures reduced the private sector demand for loans. On top of that, higher government spending during the pandemic increased the demand for financing from the public sector, which, among others, manifested in a rise in the supply of bonds and their share in banks' balance sheets. The dwindling private sector demand for loans after the pandemic also resulted from higher funding costs, while the sensitivity of the borrowing needs of the state to interest rate hikes was smaller.

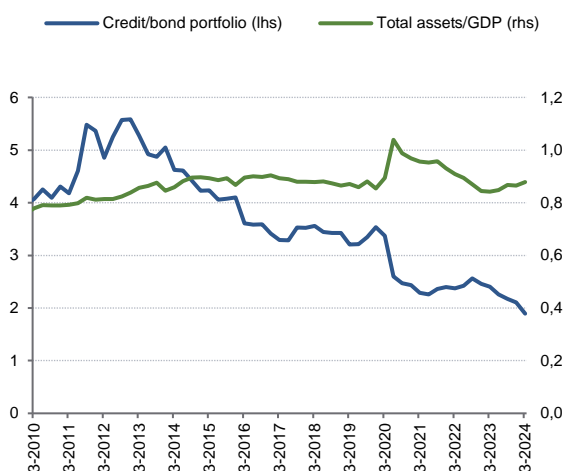
One of the factors conducive to holding Treasury bonds in banks' balance sheets is also the design of the tax on certain financial institutions. Due to the fact that loans are subject to taxation and Treasury bonds are not, for banks the relative profitability of lending compared to Treasury bond purchases has fallen.

Larger investment in Treasury bonds reduces some risk for the banking sector (liquidity risk, credit risk and legal risk), but increases the sovereign-bank nexus. Capital burdens for credit risk are decreasing as Treasury bonds, unlike loans, carry a zero-risk weight. Liquidity risk is also mitigated as Treasury bonds are, as a general rule, one of the most liquid securities on the domestic financial market. However, a feedback loop between the condition of the state and banks is increasing through bond valuation in their portfolios.

Banks' sensitivity to changes in bond valuation has so far remained limited mainly due to a large and growing share of the portfolio that is not marked to market. The sensitivity of banks' own funds to a hypothetical shock to bond yields (a 300 bps rise) dropped to around 6% in the third quarter of

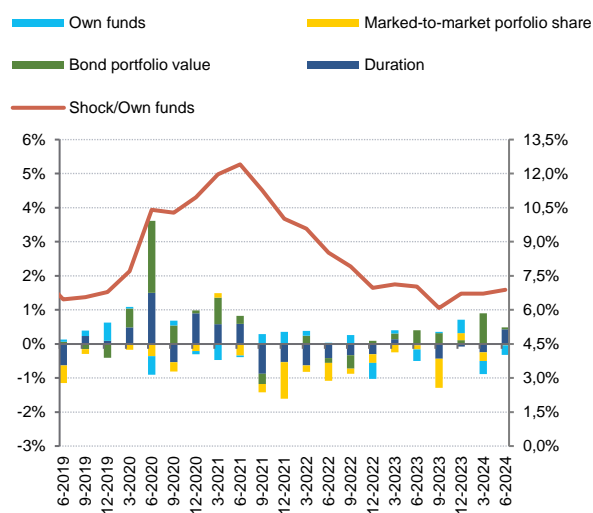
2023 and has since increased. However, it has not exceeded 7% and is almost twice smaller than in the middle of 2021 (see Figure 4.2). The total book value of the bond portfolio increased, but mainly in the part measured by amortised cost, which is not sensitive to current market conditions. The impact of an increase in the duration of the portfolio to around 2, seen in the second quarter of 2024, was limited by a further increase in banks' own funds.

Figure 4.1. Credit and Treasury bonds in banks' assets



Source: NBP.

Figure 4.2. Sensitivity of own funds to credit risk of SPW and impact of individual factors



Note: Brown line indicates the ratio of a shock to banks' own funds (right-hand scale). Bars show the decomposition of the change of the effect of a 300 bp shock on the value of the SPW portfolio of banks (left-hand scale, %).

Source: NBP.

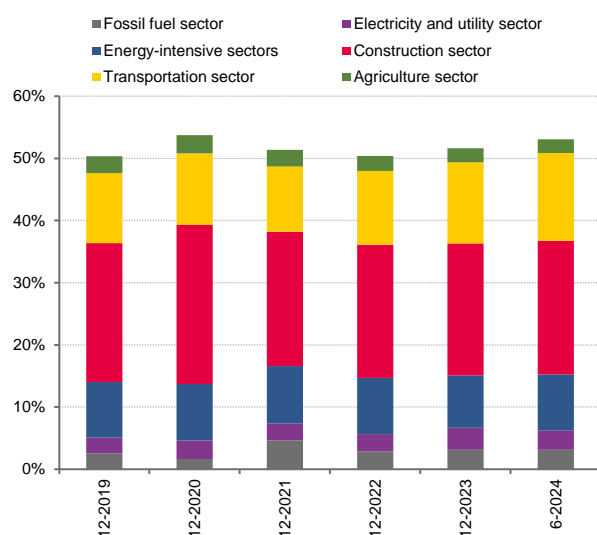
The risk of loss in the portfolio of bonds not marked to market, arising from the potential need to sell them before the maturity date, remains insignificant. The overwhelming majority of banks more than comply with the LCR requirement via marked-to-market bonds and other instruments, e.g. NBP bills and funds in accounts with NBP. In the case of banks where this situation has not occurred, compliance with the LCR requirements via marked-to-market bonds and NBP bills increased. The potential need to satisfy liquidity needs through the sale of such instruments will therefore not impact the level of bank's equity. On the other hand, in the case of banks with a higher share of securities that are not marked to market, potential losses from the sale of the securities would not put sector stability at risk because of the insignificant size of the potential required sale of the portfolio. Moreover, Treasury securities – irrespective of their accounting and valuation methods – may serve as collateral in repo and SBB operations on the market and in operations with the central bank, which reduces the need to sell them and mitigates the risk of bank losses should they have increased liquidity needs.

4.1.5. Other structural risks

Climate changes and the measures to mitigate them may have serious implications for the economy and financial sector stability. In Poland, this risk is primarily tied to banks' exposure to high carbon-intensive companies that may encounter financial problems related to their transition strategies aimed at achieving net-zero greenhouse gas emissions by 2050. The scale of the necessary investments aimed at reducing greenhouse gas emissions provides both opportunities and risks to the banking sector.

Commercial banks' exposures to sectors sensitive to climate change amounts to approx. 196 billion zlotys, which accounts for 50% of the corporate credit portfolio (see Figure 4.3). The value of loans to sectors with the largest carbon footprint, i.e. the mining industry (3%), energy production (3%) and energy-intensive industries (9%) totals 56 billion zlotys. Those exposures are characterised by a relatively low impaired loans ratio (see Figure 4.4), which has recently been stable or even improved slightly. The relatively good current financial standing of enterprises from high carbon-intensive sectors, which translates into a low impaired loans ratio, is beneficial from the points of view of their capacity to incur the costs of transition in the short and medium-term. However, account should be taken of the fact that the impaired loans ratio is retrospective and does not reflect the risk that may materialise in the future in connection with the transition to a low carbon economy. Therefore, banks should implement ESG risk management policies and apply stress test-based scenario methods that will help them to estimate the level of their sensitivity to climate change factors.

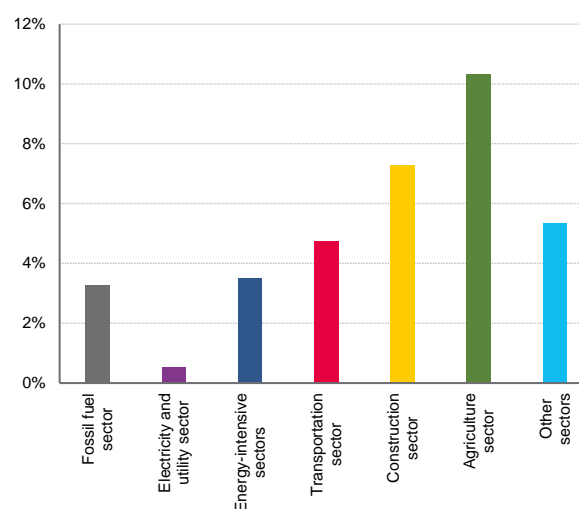
Figure 4.3. Commercial banks' credit exposure to climate policy relevant sectors



Note: Climate policy relevant sectors have been defined based on the methodology in "Financial Stability Report. June 2024".

Source: NBP.

Figure 4.4. Impaired loan ratio across sectors



Source: NBP.

4.2. Cyclical risk: *remains moderate amid high uncertainty*

Cyclical risk is moderate and poses no risk to financial stability in Poland. Despite the rise in cyclical risk intensity in recent quarters, it is in the range defined as a standard risk level¹²³ (see Figure 4.5). The increased risk results primarily from low risk pricing on the global financial market, which is conducive to a higher level of financial institutions' leverage. However, almost half of the increase in cyclical risk intensity recorded in the last year can be attributed to variables from the domestic real estate market (see green bars in Figure 4.6). The model takes into account domestic real estate developments by including primarily those variables that reflect the (real) level of prices, and the prices have increased in recent quarters. The positive contribution of the domestic real estate market to the overall cyclical risk level should not be regarded as a source of concern in this market. The risk is growing, but we are faced with an increase from a low level – in the fourth quarter of 2022 risk readings were below the range of the standard risk level. In the same period, macroeconomic variables contributed to a decrease in cyclical risk intensity growth (see brown bars in Figure 4.6).

The imposition of the neutral rate for the countercyclical capital buffer (nCCyB) was an important macroprudential policy action taken to strengthen the resilience of Poland's banking sector in an environment of high uncertainty. The design of the nCCyB also takes into account uncertainty related to cyclical risk intensity measurement. In September 2024, the Minister of Finance issued a regulation¹²⁴, according to which from 25 September 2025 the rate of the applicable nCCyB will be 1%. This regulation implements the recommendation of the Financial Stability Committee following the adoption of the *Strategy on the application of the countercyclical capital buffer in Poland*¹²⁵. The Committee considered it advisable to set the neutral rate for the countercyclical capital buffer, which would be prudential in nature and binding for banks also at a standard risk level, i.e. for most of the financial cycle. In the FSC's opinion, this will enable to strengthen the resilience of the banking sector and prepare for the effects of the materialisation of risks that are difficult to foresee or unforeseeable (e.g. the pandemic). In addition, the buffer hedges against the so-called model risk as not all risks can be correctly and timely identified by statistical methods. The Committee recommends building up the capital buffer at the target level of 2% of the total risk exposure of institutions with credit exposures in the territory of the

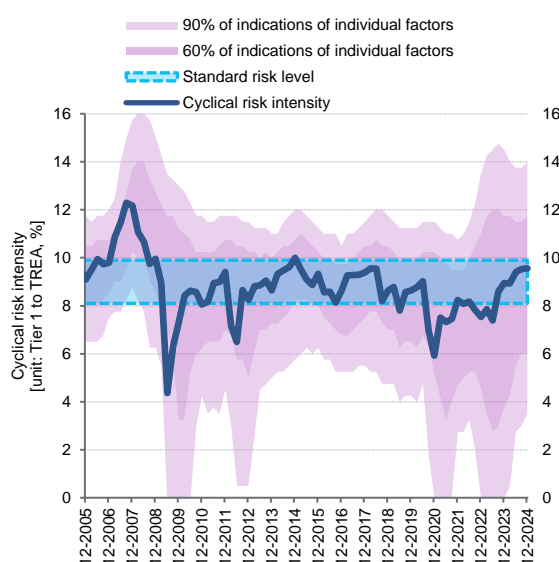
¹²³ A standard risk level is defined as a range such that only periods of more than average turmoil in the domestic financial market or its immediate environment fall outside it. The following are outside the range of a standard risk level: (i) a rise in cyclical risk intensity readings in view of a forthcoming global financial crisis, (ii) a fall in cyclical risk intensity in view of the consequences of a global financial crisis, (iii) a fall in cyclical risk intensity in view of a sovereign debt crisis in the euro area, (iv) a fall in cyclical risk intensity readings in view of the COVID-19 pandemic, (v) a fall in cyclical risk intensity readings following the outbreak of war in Ukraine. As a result, within the standard range of risk, the central measure of cyclical risk intensity \in (8.1%; 9.9%).

¹²⁴ Journal of Laws 2024, item 1400, <https://dziennikustaw.gov.pl/DU/rok/2020/pozycja/473>

¹²⁵ Financial Stability Committee, "Strategy on the application of the countercyclical capital buffer in Poland", March 2024 (https://nbp.pl/wp-content/uploads/2024/04/2024.03-Poziom-CCB_KSF-stara_EN_final.pdf).

Republic of Poland. The Committee recommends to gradually increase the rate of the countercyclical capital buffer – first to 1%, and next to 2%, while maintaining in each case an adjustment period of 12 months. The said regulation implements the FSC-recommended first stage of the construction of the countercyclical capital buffer.

Figure 4.5. Cyclical risk intensity



Notes (left-hand panel, Figure 4.5): Measurement of cyclical risk intensity reflects simultaneously the current reading of cyclical risk intensity and the adequate minimum – from the point of view of macroeconomic measures – level of the capital ratio. As cyclical risk intensity grows, the value of capital that the banking sector needs to absorb losses related to a potential materialisation of cyclical risk rises. Therefore, an increase in an adequate capital ratio should be understood as an increase in cyclical risk intensity.

For more information, see “Methodology for setting the countercyclical capital buffer”, Financial Stability Committee, March 2024 (https://nbp.pl/wp-content/uploads/2024/05/Metodyka-kalibracji-bufora-anty-cyklicznego_EN.pdf).

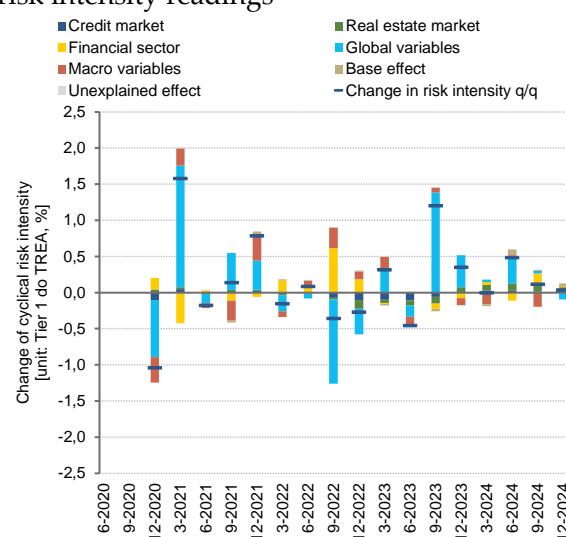
Purple ribbons, marked 60% and 90%, denote the ranges in which there are, respectively, 60% and 90% of indications of specific indicators. The broader the ribbons, the greater uncertainty related to the reading of the central measure of cyclical risk intensity.

Notes (right-hand panel, Figure 4.6): The figure shows the impact of specific variables¹²⁶ on the changes in the level of the reading of the central measure of cyclical risk intensity presented in Figure 4.5.

The last current reading in the fourth quarter of 2024 is based on data for the end of the second quarter of 2024.

Source: NBP.

Figure 4.6. Decomposition of changes in cyclical risk intensity readings



¹²⁶ The list of indicators which make up each of the categories shown in the figure: (i) credit market – broad credit aggregate for the private non-financial sector, broad credit aggregate to GDP, narrow credit aggregate for the private non-financial sector, narrow credit aggregate to GDP, DSR for the private non-financial sector, broad credit aggregate for households, broad credit aggregate for NFCs; (ii) real estate market – real estate prices to rental cost, real estate price index, real estate prices to income, value added of the real estate market to the value of value added in a given year; (iii) base effect – value of the Tier 1 capital ratio to TREA in the last year; (iv) financial sector – value added of the financial market to the sum of value added; (v) global variables – VIX (Volatility Index of the Chicago Board Options Exchange); (vi) macro variables – the balance of current account to GDP, GDP, broad money aggregate, M3 money aggregate, the government debt to GDP, value added of the public sector to the sum of value added in a given year.

4.2.1. Risk associated with residential real estate funding: *low*

There are no indications that systemic risk associated with banks' exposure to the RRE market is building up. Although the exposures are substantial, the index that aggregates variables from the following three areas: (i) RRE market prices, (ii) RRE funding, and (iii) the financial condition of households, shows that systemic risk remains limited (see Figure 4.7). This is especially supported by the situation of households due to the rising wages and dwindling financial obligations of the household sector, which is reflected, among others, in decreasing total debt servicing costs (see Figure 4.8).

Figure 4.7. Tensions associated with residential real estate funding

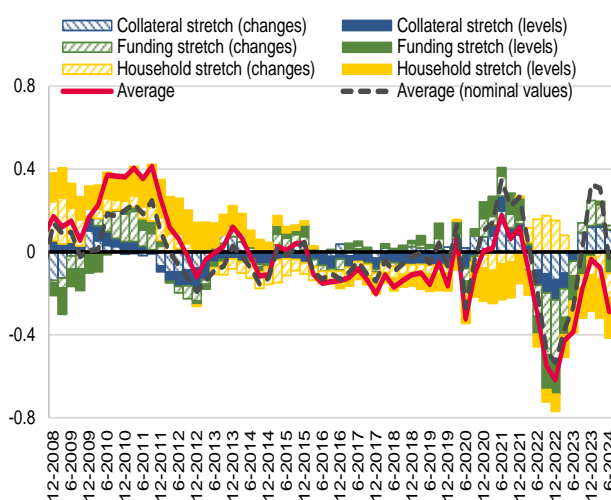
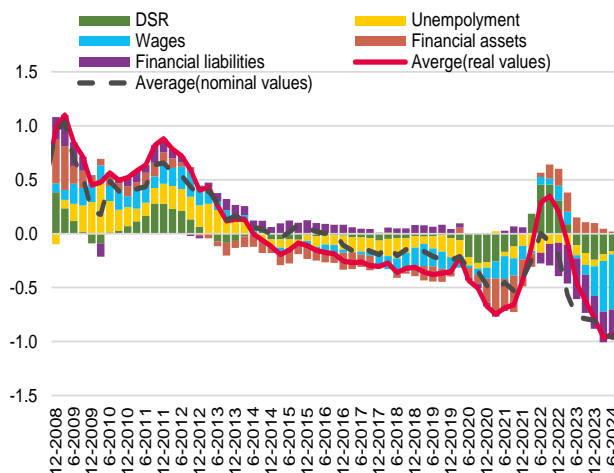


Figure 4.8. Tensions in the situation of households



Notes: A regular impact assessment of residential real estate market developments on financial stability takes into account three aspects: (i) price developments on the real estate market (collateral stretch), (ii) banks' policy regarding funding real estate purchases (funding stretch), and (iii) the level of household debt and the capacity of households to repay mortgages (household stretch). The variables are standardised by z-score transformation. The index, marked with a red line, averages information on the levels and dynamics of changes in a set of variables that are material for an assessment of overall stress on the real estate market. All variables are converted to real values by adjusting for GDP, average wages or the wage fund in the economy. Bars illustrate the relative impact of each of the variables on the overall index. The index not adjusted for inflation is marked with a dashed line.

Source: NBP.

RRE funding standards did not change significantly. As the impact of "2% Safe Mortgage" on new lending waned, LTV values of new lending reported by banks returned to previous levels. With the phasing-out of the "2% Safe Mortgage" scheme, the share of new loans with high DSTI ratios also decreased. The share of those loans in new lending has remained substantial, however this results from high interest rates, and risk associated with those loans remains limited due to process of evaluating the creditworthiness of clients and borrower income structure (see Box 4.3).

Box 4.3. DSTI ratios for housing loans granted in the years 2022-2024*DSTI and DTI ratios*

The real estate sector plays an important role in the economy, and exposures to this sector are a significant part of the loan portfolio of banks active in Poland. Adverse real estate market developments and its funding played an important role in many countries during the recent global financial crisis. This experience has led to the implementation of macroprudential instruments aimed at mitigating the risk of real estate market funding and increasing the resilience of the financial system. They are applied in the form of supervisory regulations or recommendations regarding mortgage lending standards. Particular importance is given to the requirements concerning borrowers' ability to take out and repay loans (borrower-based measures, BBM).

The category of BBM-type macroprudential measures includes, among others, limits that apply to the DSTI and DTI ratios. The DSTI ratio is a measure of the borrower's current debt service burdens and is expressed by the following formula:

$$DSTI = \frac{\text{monthly loan installments}}{\text{the borrower's monthly net income}}$$

The DTI ratio, in turn, relates to the total household debt and is expressed by the following formula:

$$DTI = \frac{\text{debt}}{\text{the borrower's annual net income}}$$

In Poland, rules on the application of the borrower-based measures are defined in the supervisory recommendations of the Polish Financial Supervision Authority. As regards limits applying to DSTI, Recommendation S¹²⁷ indicates that banks should pay particular attention to loans for which DSTI ratios exceed 40% for customers with income below the average salary in the region and 50% for other customers. However, Recommendation S does not define limits that apply to the DTI ratio.

Loans with elevated DSTI and lower DTI in recent years

In recent years, the domestic banking system has seen a rise in the share of high DSTI loans. On average, every fifth loan granted in 2022-2024 had DSTI ratio above 50% (see Figure 4.9). This means that such a household allocated more than half of its net income to servicing its total debt.

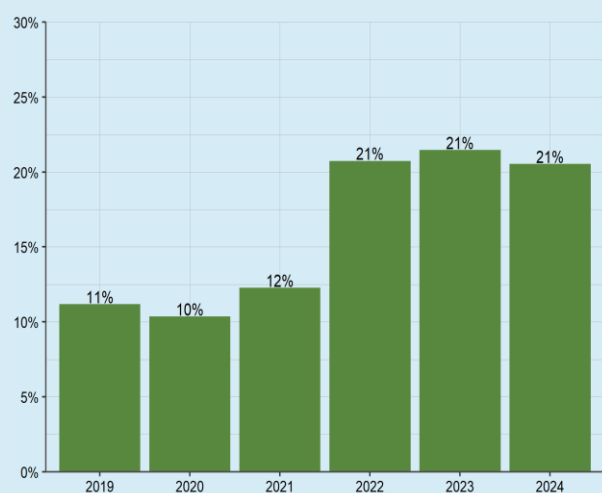
At the same time, the percentage of high DTI loans, i.e. loans for which the value of the loan at the origination date was over 6 times higher than the annual net income of the household (i.e. DTI above 6), has fallen substantially.

Those loans accounted, on average, for around 8% of new loans in the years 2022-2024 (see Figure 4.10). Comparing to 2019-2021, the percentage of such loans dropped more than 2.5 times.

¹²⁷ Recommendation S on good practices with regard to managing mortgage-secured credit exposures.

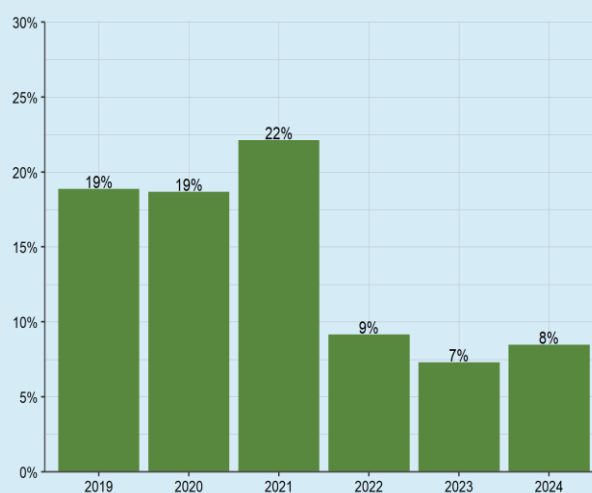
Those loans accounted, on average, for around 8% of new loans in the years 2022-2024 (see Figure 4.10). Comparing to 2019-2021, the percentage of such loans dropped more than 2.5 times.

Figure 4.9. Percentage of new loans with high DSTI at origination (i.e. above 50%)



Source: UKNF non-standard reporting data include the largest commercial banks. The year 2024 covers only the first six months.

Figure 4.10. Percentage of new loans with high DTI at origination (i.e. above 6)



Source: UKNF non-standard reporting data include the largest commercial banks. The year 2024 covers only the first six months.

Considering the above developments, the question arises whether these trends suggest an increase in the credit risk undertaken by banks?

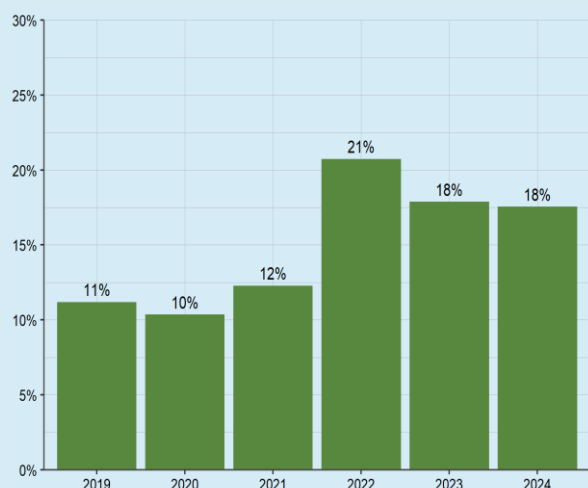
The increase in the share of new loans with a high DSTI was heavily affected by the government home buyer support schemes. From the second half of 2023 to the first half of 2024, more than 40% of loans were loans granted under the “2% Safe Mortgage” programme. Due to structure of this programme, which assumes a faster repayment of loan principal¹²⁸ and fixed and relatively low interest rate for 10 years from the loan origination date, they are not fully comparable with standard mortgage loans.¹²⁹ Analysing data excluding loans under the “2% Safe Mortgage”, it can be observed that the percentage of loans with a high DSTI ratio at origination decreased by around 3 p.p. compared to 2022. However, it still remained substantially higher than in the years 2019-2021 (on average, by 7 p.p., see Figure 4.11). On the other hand, data on loans beyond the scope of the programme, broken down by DTI, indicate that the share of loans with relatively high value comparing to income dropp-

¹²⁸ The programme assumes that during the repayment term, i.e. the first 10 years, the repayment mechanism will be based on decreasing principal and interest instalments (a fixed principal instalment and a decreasing interest instalment). The advantage of this mechanism is that the principal amount is repaid significantly faster (compared to the prevailing repayment mechanism that assumes repayment in equal instalments, where in the initial phase interest payments are mainly made). Owing to this, the real cost of credit expressed in an interest instalment is substantially lower, and taking into consideration the assured level of interest rates, the principal and interest instalment paid by the borrower decreases each year.

¹²⁹ See also Chapter 2.2.

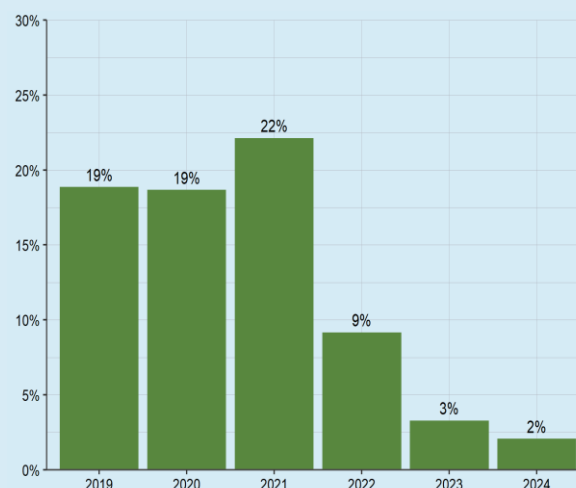
ed sharply, from 20% in the years 2019-2021 to around 2-3% in the years 2023-2024 (see Figure 4.12).

Figure 4.11. Percentage of new loans (excluding “2% Safe Mortgage” loans) with high DSTI at origination (i.e. above 50%)



Source: UKNF non-standard reporting data on the largest commercial banks. The year 2024 covers only the first six months.

Figure 4.12. Percentage of new loans (excluding “2% Safe Mortgage” loans) with high DTI at origination (i.e. above 6)



Source: UKNF non-standard reporting data on the largest commercial banks. The year 2024 covers only the first six months.

New lending in the period of 2022-June 2024 was characterised by higher, on average, initial loan repayment burdens on borrowers (at origination, principal and interest instalments consumed, on average, a larger part of monthly income), but at the same time by a lower, on average, overall household debt (the value of loan to annual income at origination was substantially lower).

The change in the relationship between loan distribution by DSTI and DTI ratios compared to previous years was primarily driven by interest rates hikes, which on the one hand increased the interest on loans and thus the amount of interest instalment, but on the other hand reduced the household creditworthiness and thereby maximum loan amount.

The divergent DSTI and DTI developments are not accidental. The DSTI limit associated with the level of interest rates, and additional supervisory requirements including the interest rate buffer¹³⁰, maximum repayment terms¹³¹ and the cost of living¹³² implies the DTI limit. Figure 4.13 shows the path of DTI (solid line) at various interest rate levels for a 3-person household in two income scenarios

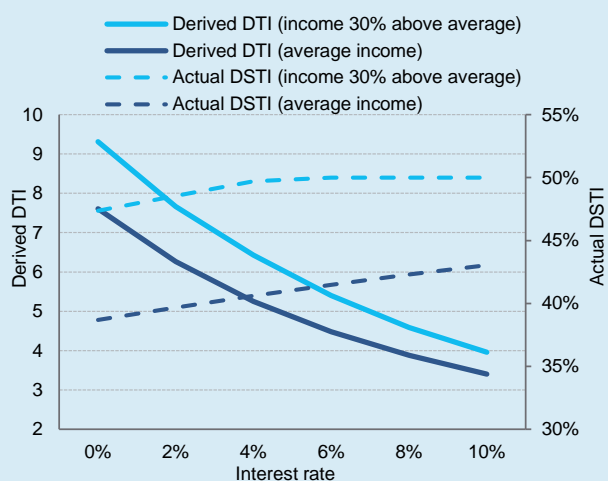
¹³⁰ According to the definition included in Recommendation S, an interest rate buffer is a change in the level of the interest rate during the measurement and assessment of the risk of mortgage-secured credit exposures with floating or periodically fixed interest rates.

¹³¹ According to Recommendation S, the maximum repayment term taken into consideration for the calculation of creditworthiness cannot be longer than 25 years (even if the loan is extended for a longer period).

¹³² According to Recommendation S, the cost of living included in the creditworthiness assessment should be typical for the given borrower, but not lower than the subsistence minimum.

(salary at the average level in the corporate sector – navy blue, and at the level of 30% above the average – light blue), assuming that the household fulfils the creditworthiness requirements defined in Recommendation S. The lower the level of interest rates, the lower the DSTI ratio and therefore the household can borrow more, which means that the DTI ratio is higher. In addition, a dashed line is used to mark the actual DSTI. For a 3-person household with income at the average level, the actual DSTI does not exceed 50% at any interest rate level (a dark blue dashed line). This is because the income remaining after accounting for the instalment stressed with the interest rate shock has to suffice to cover the cost of living, whereas this condition would not be met with a DSTI level of 50%. The situation is different for households with higher than average salaries, whose nominal income buffers are bigger. For such a household, the creditworthiness-constraining requirement at a certain interest rate level is the limit that applies to the DSTI ratio of 50% (a light blue dashed line).

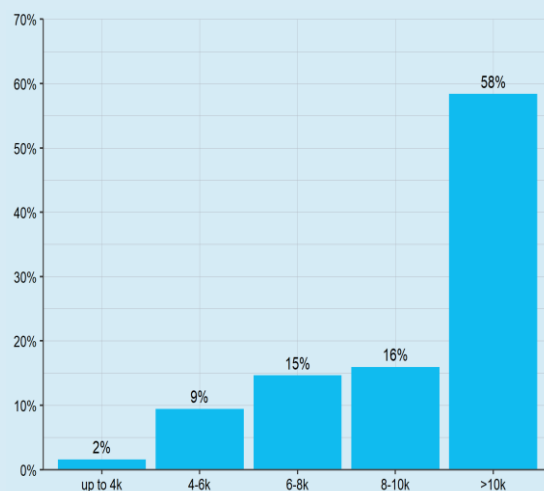
Figure 4.13. DTI derived from creditworthiness assessment process (left axis) and actual DSTI (right axis) for a given 3-person household with average income and with income 30% above the average



Notes: Own calculations. This simulation is based on the following assumptions: a 3-person household with two members earning an average income or 30% above the average wage in the enterprise sector. Living costs are not lower than the social minimum for a 3-person household with an older child, increased by 20%. The interest rate buffer is compliant with the Recommendation S requirements. The repayment term is 25 years. The maximum DSTI amounts to 50%.

Source: NBP.

Figure 4.14. Distribution by income groups of loans with high DSTI (above 50%) granted from January 2022 to June 2024



Notes: The data include only new loans granted beyond the “2% Safe Mortgage” programme.

Source: UKNF non-standards reporting data.

When granting loans with DSTI above 50%, banks relaxed requirements primarily for higher-income households, which had a adequate income buffer to cover living costs¹³³. Figure 4.14 presents the distribution of high DSTI loans at origination, broken down by income groups. Almost 60% of such loans were granted to higher income borrowers. It should also be emphasized that Recommen-

¹³³ This buffer is different for households with a varying number of persons.

dition S allows exceeding the DSTI ratio of 50%, but this should involve the bank's conscious acceptance of increased risk.

Loans from 2022-2024 (including loans with a high DSTI) were granted in a high interest rate environment, which was a risk-constraining factor. As a result, due to limited creditworthiness, the value of loans taken out relative to income was lower for this group of borrowers compared to those taking out loans in previous years, thus potentially facilitating debt servicing throughout the entire loan repayment period. Moreover, the risk of a significant increase in interest rates for these cohorts is lower than for loans granted in the period when they were at their all-time lows. Labour market developments, including a low unemployment rate and high wage growth, have also had a positive influence on borrower resilience. The average monthly salary in the national economy grew by approximately 35% in nominal terms and around 5% in real terms from 2022 to June 2024. However, not all borrowers' income grow in line with an average wage growth. For some borrowers, the pace of salary growth is faster, while for others, it is negative. The results of the simulation considering various income development scenarios from loan origination (including a drop in borrower incomes)¹³⁴ indicate that the share of impaired loans, even for loans with a high DSTI ratio, will not increase compared to the current situation, and the size of potential loan losses should not pose a risk to banking sector stability.

¹³⁴ The simulation aimed to show alternative burdens on borrowers at various assumptions with regard to wage developments. The need to adopt the assumptions resulted from a lack of precise information on income developments. Upon loan origination, banks compile data on the prospective borrower's income for creditworthiness assessment purposes. However, the data are not updated in the subsequent years of debt repayment.

Glossary

Annualised data – in the case of data on flows – the value of flow in the preceding 12 months; in the case of data on balance (stock) – the average value of stock in the preceding 12 months.

Auto casco (AC) insurance – comprehensive auto insurance of land vehicles, excluding track vehicles, covering damage in automobiles or land vehicles lacking own drive – class 3 of the non-life insurance sector according to the Act on Insurance Activity.

Banking sector – all domestically incorporated commercial banks and cooperative banks, as well as branches of foreign credit institutions active in Poland.

Basic solvency capital requirement – the capital solvency requirement without taking into account the capital requirement for operational risk and the adjustment for the loss-absorbing capacity of technical provisions and deferred taxes.

Ceteris paribus – a way of analysing economic phenomena, consisting in the study of the isolated impact of a selected factor if other things remain unchanged.

Combined Operating Ratio (COR) – the ratio of claims paid, costs and expenses to premium earned.

Commercial banks – domestic commercial banks and branches of credit institutions.

Consumer loans – loans granted to natural persons for personal use in the consumption of goods and services (including overdrafts and credit card loans).

Credit losses – in banks applying IFRS – the balance of provisions created or (-) released for expected credit losses (until the end of 2017, charges to provisions for impaired loans); in banks applying the PAS – the balance of specific provisions created or released. Credit losses also include net income on write-down of a financial asset in the amount of the difference between the value of the financial assets written down and the value of provision/specific provision as well as recovery of assets written down earlier.

Debt service to income (DSTI) – the ratio of the monthly value of all loan instalments to the net monthly income of a household.

Debt-to-Income (DTI) ratio – the ratio of a client's total debt to its annual income.

Domestic commercial banks – domestically incorporated banks operating in the legal form of a joint-stock company or a state bank.

Expected profits included in future premiums – the difference between the technical provisions without a risk margin and the technical provisions without a risk margin under the assumption that the premiums relating to existing insurance and reinsurance contracts that are expected to be received in the future are not received for any reasons other than the insured event occurred, regardless of the legal or contractual rights of the policyholder to discontinue the policy.

Flow funds of BGK – funds with no legal personality, created under separate legislation and administered by BGK in order to perform public policy tasks, such as the COVID-19 Response Fund, the National Road Fund, and the Armed Forces Support Fund.

Housing loans – loans on residential real estate for households.

Institutional Protection Scheme (IPS) – an agreement of associating and cooperative banks associated with them (IPS-CB) established under the Act of 7 December 2000 on the Functioning of Cooperative Banks, their Associations and Associating Banks (i.e. Journal of Laws of 2022, item 456, as amended). The functioning of IPSs is aimed at providing liquidity and solvency to all participants in an IPS on terms laid down in the said act and IPS agreements, in particular by granting loans, bank guarantees and sureties.

Interquartile range – the difference between the value of the third quartile and the value of the first quartile in the distribution of a variable.

Large enterprises – enterprises that employ at least 250 persons.

Loan-to-Income (LTI) – the ratio of the value of a housing loan at origination to the borrower's net total annual income.

Loan-to-Value (LTV) – the ratio of the value of a housing loan granted to the value of property.

Loss ratio – the ratio of claims and benefits paid, increased by changes in the amount of provisions, to premium earned.

Minimum Capital Requirement (MCR) – corresponds to the Value-at-Risk of the basic own funds of an insurance or reinsurance undertaking to a confidence level of 85% over a one-year period.

Motor third party liability insurance – third party liability insurance for land vehicles with own drive – class 10 of the non-life insurance sector according to the Act on Insurance Activity.

National Working Group for benchmark reform (NWG) – a working group appointed in connection with the reform of benchmarks in Poland, involving the transition from WIBOR to a new, near risk-free rate alternative benchmark (https://www.knf.gov.pl/en/MARKET/Activities_of_the_National_Working_Group_for_benchmark_reform).

Net income from banking activity – the sum of net interest income and net non-interest income.

Net interest margin – the ratio of net interest income over a given period to the average balance sheet total in that period.

Neutral rate for the countercyclical capital buffer (nCCyB) – the rate of the countercyclical buffer, which is prudential in nature, and is binding for banks also at a standard risk level, i.e. for most of the financial cycle.

Non-interest income – the sum of fee and commission income, revenue from dividends and net trading income (income on valuation of instruments measured at fair value, gains/losses from the

derecognition of financial instruments other than instruments measured at fair value through profit and loss, and foreign exchange rate differences).

Operating costs – the sum of a bank's administrative expenses and depreciation.

Own funds of insurance undertaking – the sum of basic own funds which include the excess of assets over liabilities and subordinated liabilities, and ancillary own funds which comprise unpaid share capital or initial fund that has not been called up, letter of credit and guarantees and also other legally binding commitments received by insurance undertakings (or reinsurance undertakings).

Repo – a transaction in which one party sells certain securities (transferring their ownership) at an agreed sale price and at the same time undertakes to repurchase, at a later date, equivalent securities at a pre-determined price (so-called repurchase price). In economic terms, entering into such a transaction is equivalent to taking out a loan collateralised with securities. In a repo transaction, rewards incidental to ownership of securities derived during the transaction are transferred by the temporary holder of securities to the party that has undertaken to repurchase them. For the counterparty that purchases securities and at the same time undertakes to resell them, the transaction is defined as a reverse repo.

Return on Assets (ROA) – the ratio of net profit to total assets

Return on Equity (ROE) – the ratio of net profit to equity.

Risk-free-rates (RFR) indexes – an interest rate index/ratio determined based on the interest rate on O/N deposit transactions. It is intended to provide a good approximation of the concept of a risk-free rate, therefore reflecting market activity characterised by minimal liquidity risk, credit risk, etc. It does not take into account market participants' expectations as to the evolution of interest rate developments in the future.

Sell-buy-back (SBB) – a transaction in which one party sells certain securities (transferring their ownership) at a sale price and at the same time undertakes to repurchase, at a later date, equivalent securities at a pre-determined price (so-called repurchase price). In economic terms, entering into such a transaction is equivalent to taking out a loan collateralised with securities. In a SBB transaction, rewards incidental to ownership of securities derived during the transaction are retained by the temporary holder of securities, and the value of the rewards is factored in the repurchase price. For the counterparty that purchases securities and at the same time undertakes to resell them, the transaction is defined as a buy-sell-back (BSB).

Small and medium-sized enterprises – enterprises that employ fewer than 250 persons.

Solvency Capital Requirement (SCR) – corresponds to the Value-at-Risk of the basic own funds of an insurance or reinsurance undertaking to a confidence level of 99.5% over a one-year period.

SRISK (systemic risk) – market-based estimate of undercapitalisation which measures the capital shortfall of a bank conditional on a severe market decline. SRISK may be interpreted as a market-based stress test.

Systemic risk – the risk of disruptions in the functioning of the financial system, which if materialised, interferes with the functioning of the financial system and the national economy as a whole (Article 4(15) of the Act of 5 August 2015 on Macroprudential Supervision of the Financial System and Crisis Management).

Technical provisions – the amount of liabilities arising from insurance contracts.

Technical result – the difference between income from premiums, other technical income and claims and benefits paid and changes in technical provisions, including the share of re-insurers, and expenses on operating activities and other technical costs. Income and expenses on investment activities of life insurance are also shown in the technical result.

Top-down – stress tests are performed from “behind the desk”, without the involvement of the entities analysed.

Vector Error Correction Model (VECM) – the model which belongs to multi-dimensional time series models, used to identify relationships that occur in variables and indicators observed over time.

Abbreviations

2%SM	2% Safe Mortgage
AIF	Alternative investment fund
AOCI	Accumulated Other Comprehensive Income
BFG	Bank Guarantee Fund
BGK	Bank Gospodarstwa Krajowego
BIK	Credit Information Bureau
BMR	Benchmarks Regulation
CBR	Combined Buffer Requirement
CBR-M	Combined Buffer Requirement in addition to MREL
CEE	Central and Eastern Europe
CET1	Common Equity Tier I
CHF	Swiss franc
CIT	Corporate Income Tax
CJEU	Court of Justice of the European Union
COR	Combined Operating Ratio
COVID-19	Coronavirus Disease 2019
CPI	Consumer Price Index
DSTI	Debt service to income
DTI	Debt to Income
EBA	European Banking Authority
EC	European Commission
ECB	European Central Bank
EEA	European Economic Area
EIOPA	European Insurance and Occupational Pensions Authority
EPIFP	Expected profits included in future premiums
ESMA	European Securities and Markets Authority
EU	European Union

EUR	Euro
EVE	Economic Value of Equity
FSC	Financial Stability Committee
FWK	Borrower Support Fund
GDP	Gross Domestic Product
GPW	Warsaw Stock Exchange
GUS	Statistics Poland
HH	Households
IFMC	Investment Fund management Company
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IPS	Institutional Protection Scheme
IRRBB	Interest Rate Risk in the Banking Book
KNF	Polish Financial Supervision Authority
LCR	Liquidity Coverage Ratio
LTI	Loan to Income ratio
LTV	Loan to Value
MCR	Minimum Capital Requirement
MREL	Minimum Requirement for Own Funds and Eligible Liabilities
MREL-RCA	MREL Recapitalisation Amount
MREL-TREA	MREL calibrated on TREA
NAV	Net Asset Value
NBP	Narodowy Bank Polski
nCCyB	Neutral rate for the countercyclical capital buffer
NFC	Non-financial corporations
NIM	Net Interest Margin
NSFR	Net Stable Funding Ratio
NWG	National Working Group for benchmark reform

OECD	Organisation for Economic Co-operation and Development
P2G	Pillar 2 Guidance (expected level of own funds)
P2R	Pillar 2 Requirement (additional requirement for own funds)
PAS	Polish Accounting Standards
PM	Primary market
RFR	risk-free rate
ROA	Return on Assets
ROE	Return on Equity
RORC	Return on regulatory capital
SBB	Sell-buy-back
SC NWG	Steering Committee of the National Working Group
SCR	Solvency Capital Requirement
SM	Secondary market
SME	Small and medium-sized enterprise
SP	State Treasury
SPE	Single Point of Entry
SPW	Treasury securities
TCR	Total Capital Ratio
TEM	Total Exposure Measure
TREA	Total Risk Exposure Amount
UCITS	Undertaking for Collective Investment in Transferable Securities
UFK	Unit-linked insurance
UKNF	Office of the Polish Financial Supervision Authority
USA	United States of America
VECM	Vector Error Correction Model
WFD	Long-term Funding Ratio
WIBOR	Warsaw Interbank Offered Rate
WIRF	Warsaw Financial Market Index

WIRON	Warsaw Interest Rate Overnight
WRR	Warsaw Repo Rate
ZBP	Polish Bank Association

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