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DETERMINANTS OF POLAND'S FINANCIAL STABILITY IN 2004–2018

This article seeks to present the essentials of financial stability and to analyse and evaluate selected determinants of stability Poland's financial system in the years 2017–2018. The study comprises exemplary ratios or indicators that are used in measuring the stability of a financial system. The proposed analysis is confined to selected groups of stability ratios/indicators that are pertinent to the macroeconomic situation, the situation in financial markets, and the situation of the banking sector. The analysis is based upon the data and statistics provided in the reports of the National Bank of Poland, available by 31st November 2018.

Keywords: financial stability, central bank, monetary policy, network financial security.

JEL Classification Codes: E63.

The essence of the stability of the financial system in light of actions taken by the national bank of Poland

Financial stability is an element of a broader category described as (macro)economic stability as frequently becomes a focus of interest for researchers, particularly after public institutions intensified their involvement in caring about financial stability.

One definition has it that stability of a financial system is the condition in which the system fulfils its functions in a continuous and effective manner, even though certain,

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rather implausible and unexpected, adverse disturbances may appear on a considerable scale.

A financial system can be deemed stable when its structural weaknesses are not increasing. Consequently, the functions of an efficient financial system should include avoidance of current instability and of accumulation of systemic risk. Systemic risk is a risk of disturbance in the functioning of a financial system which, in case it gets materialised, disturbs the operation of the financial system and national economy as a whole (Article 4, clause 15 of the Act 'on macro-prudential oversight of the financial system and crisis management in the financial system' [hereinafter, the 'Macro-Prudential Oversight Act']).

A stably functioning financial system is the necessary condition for ensuring sustainable economic development in the long run. In Poland, sustained stability of the banking sector is of vital importance for maintaining the financial system's stability: this is due to the banking system's assets which account for two-thirds of the entire financial system.

Banks have a crucial role in financing the economy and in monetary settlements. Another important function of banks is offering numerous products to enable other entities to enable management of their financial risks and exposures. For these reasons, a particularly strong emphasis is placed on analysis and assessment of threats to stability of the banks.

The Central Bank faces the necessity to analyse, each time, the broad and ever-evolving spectre of factors determining the stability of the financial system, since failure to take into account the apparently irrelevant factors in the short run may decrease the efficiency of the Central Bank's stabilising action in the future. Appropriate recognition by the Central Bank of the reasons behind instability enables to select the appropriate and successful stabilisation and improvement actions. The Central Bank ought to act proactively and endeavour to influence the conditions and determinants of stability of the financial system so that they foster avoidance of instability and favour the development of the system and proper fulfilment of its major functions (Smaga, 2017, p. 92).

Stability of the financial system is a special focus of the National Bank of Poland (NBP), owing to the statutory tasks imposed on the Bank to act to eliminate or limit the systemic risk, to shape the conditions necessary for the development of the banking system as well as take action to stabilise the financial system in the domain of financial institutions (Art. 3, clause 2, items 6, 6(a) and 6(b) of the Act on the National Bank of Poland [hereinafter, the 'NBP Act'). Acting along these lines, NBP participates in exercising macro-prudential oversight of the financial system and can join crisis management activities in case a direct threat occurs to the stability of the financial system. Macro-prudential oversight primarily seeks to reinforce the financial system's immunity in case a systemic risk materialises and, thereby, support long-term sustained economic growth of the country (Art. 1, clause 2 of the Macro-Prudential Oversight Act).

A stable financial system is the precondition for implementation of the Central Bank's basic task – namely, to maintain stable pricing. This is so because the financial system plays the key part in the transmission of impulses of monetary policy to the real sphere. Otherwise, unstable financial system may hinder efficient pursuance of this policy.

Analysis of the financial system, including the threats to its stability, is likewise the indispensable element of efficient regulatory and supervisory policies, to the formulation of which NBP contributes. Together with the monetary policy, these policy areas contribute to maintenance of a sustained economic development.

Yet another incentive for NBP to act in favour of stable functioning of the financial system is that the Bank is tasked with organising cash settlements (Art. 3, clause 2, item 1 of the NBP Act). The necessary condition for efficient and safe operation of the payment system is stable functioning of the financial institutions involved.

The multi-aspect character of financial stability and the multiplicity of factors or drivers influencing and affecting it cause that measuring financial stability is a quite difficult and ambitious a task. As a matter of fact, there is no single measure that would tell whether the financial system is actually stable or not. The literature dealing with measurement of financial system's stability is considerable; it has mainly developed over the last two decades, following an increased interest in financial stability issues. In spite of intense work in this particular area, there is no particular synthetic measure that could be used even as a rough measuring device applicable to financial stability. Actions taken to measure financial stability ensue from endeavouring to build an early warning system for financial crisis (Próchniak and Wasiak, 2014, p. 59). Hence, such measures should inform of potential treats to financial stability (the alerting/preceding function), rather than just showing the historical status or condition.

Simple indicators of financial stability ensure the most transparent measurement method as part of which microeconomic parameters are aggregated on the macro level. The below-analysed ratios concern the financial sector as well as the real sector (households, enterprises), which reflects a two-way dependence between the status in the real sector and the stability of the financial system. Based on their review of the literature, (Gadanecz and Jayaram, 2009, pp. 367−369) classed the simple indicators into six categories, as shown in the table 1.

As it stems from the above considerations, NBP's involvement in stabilising the financial system result from the effect of a variety of factor, as does the character and intensity of this involvement. In order to systematise these problems, analysed herein below will only be selected groups of financial system stability indicators, pertinent to the:

- macroeconomic situation,
- situation in financial markets, and,
- situation of the banking sector.

Table 1. Exemplary indicators/ratios used in measuring the stability of financial system

Category	Exemplary indicators/ratios
Real economy	– trends in GDP – inflation – unemployment
Corporate/enterprise sector	– leverage – ROE – revenue vs. interest expense and capital instalment – number of bankruptcies in enterprise sector
Household sector	– financial assets of households – indebtedness of households vs. GDP – households' disposable (available) income, net – households' revenue vs. consumtpion expenditure and debt service
External conditions	– real currency exchange rate – currency reserves – maturity mismatch – currency mismatch
Financial sector	– real interest rates – credit increase rates – leverage indicator – capital adequacy – NPL level
Financial markets	– changes in share price index – CDS bonus for government bonds – credit spreads

Source: authors' own elaboration, after Gadanecz and Jayaram, 2009, pp. 367–369.)

The analysis proposed herein is based on the data and statistics published in NBP reports available before 31st November 2018 (inclusive).

Macroeconomic Situation

Economic growth is one of the basic indicators that reflect the actual stability of Polish financial system in the macroeconomic sphere.

In the former half of 2018, Poland's economic growth soared at 5.2% y/y, its main source being consumer demand reinforced by increasing employment rates, salaries, and high spirits among consumers. Based on the existing deliberations, from the standpoint of Central Bank's policy, characteristic of modern macroeconomic environment is lower and more stable consumer pricing. As part of such strategy, NBP has been seeking since 2004 to keep the inflation – in terms of annual percentage change in the consumer price index (CPI) – at the rate of 2.5%, with a symmetric deviation range of ±1 percentage point in the medium term. The inflation rates for the period 2004–2018 are shown on Fig. 2. In spite of a considerable economic growth and increase in salaries exceeding the 2017 outcome, the trends in Poland's consumer prices for quarters 1 to 3, 2018 were moderate (in September 2019, the CPI inflated by 1.9% in year-to-year terms).

Figure 1. Economic growth rates in Poland in 2004–2018

Source: own elaboration, based on Central Statistical Office [GUS] data.

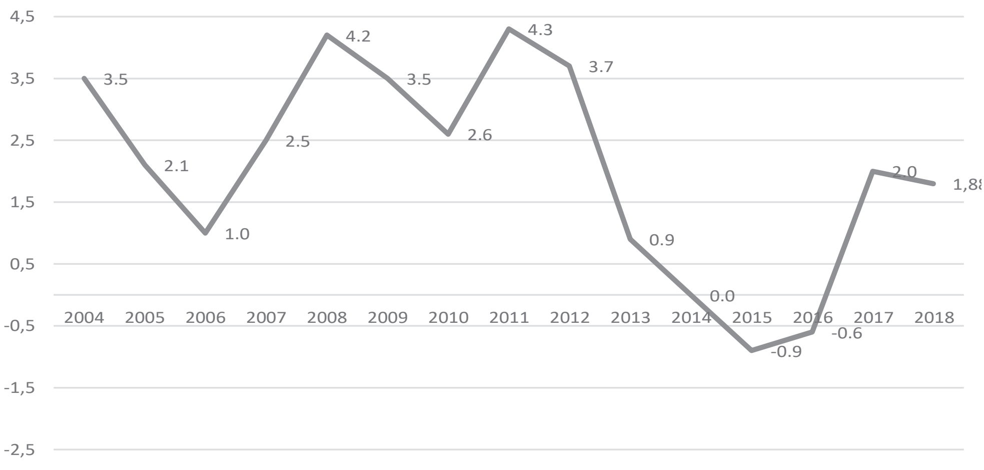


Figure 2. Economic growth rates in Poland in 2004–2018

Source: own elaboration, based on Central Statistical Office [GUS] data.

Since 2004, the average inflation rate in Poland was 2.0% per annum, and thus was close to the NBP target, though in some years the pricing rates exceeded the deviation range. The rate for November 2018 equalled 1.9%, a significant increase compared to the preceding years. This result was mainly informed by the base effect related to dramatic drops in the prices of fuels in late 2015/early 2016, in parallel to increased prices of fuels in December 2016 and of unprocessed foodstuffs in January and February 2018, resulting from increases in the prices of these product groups in international markets. Periodical deviations in the inflation rate from the target, including the negative trends in pricing observable in the recent years, have not translated into deflation expectations, though; this is indicative of the effectiveness of the inflation target strategy in ensuring long-term stability of prices whilst simultaneously supporting financial stability of the State.

Another factor that informs the State's financial stability is the situation in the labour market. As compared to the recent three years, this situation has seen further improvement, which is mainly reflected in increasing employment and decreasing unemployment rates (these trends are shown in Fig. 3).

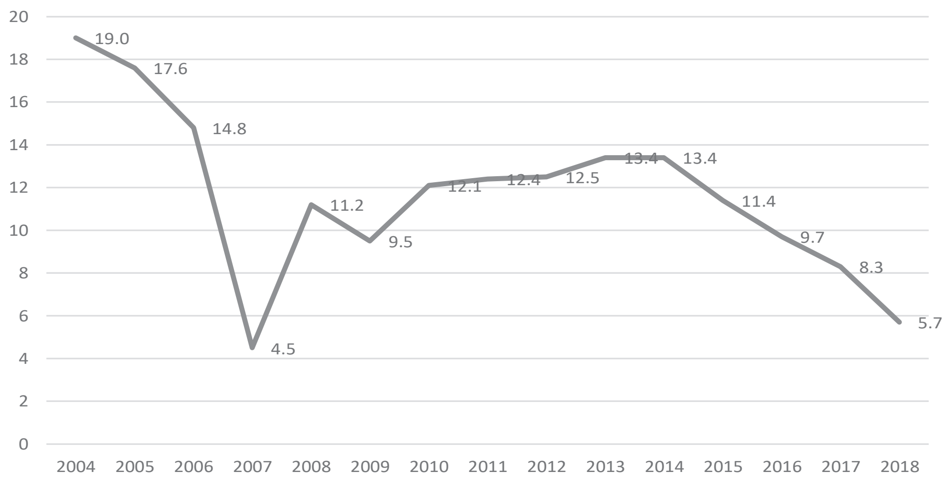


Figure 3. Unemployment in Poland in 2004–2018 [per cent]

Source: own elaboration, based on Central Statistical Office [GUS] data.

The rate of registered (recorded) unemployment has continually decreased, as observable since 2014, hitting the historical minimum, once again, in Q2 2018 (5.7% as per BAEL in Q2 2018). This, in turn, implied accelerated growth in salaries. The average wage in the enterprise sector increased by 7.4 per cent as versus October 2017 (the fastest such growth since 2009), to PLN 4,574 gross. From the beginning of 2017 onwards, salaries in this particular market segment increased amount-wise by nearly PLN 300, on average.

The continuous upturn in the national economy, labour market included, has translated into further improvement in the financial standing of households, whose incomes and spends are pictured in Fig. 4.

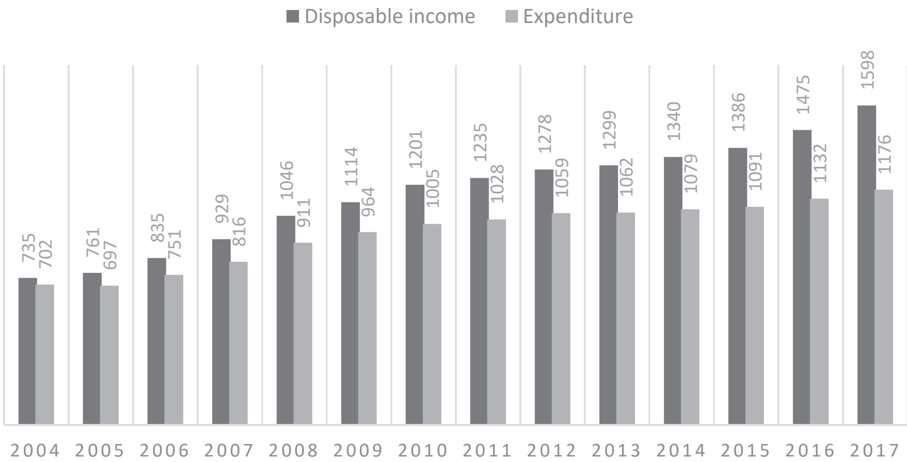


Figure 4. Average monthly per-capita household income and expenditure in 2004–2017

Source: own elaboration, based on Central Statistical Office [GUS] data.

As is shown in the initial reports for the year 2018, as was the case with the previous year, a clear improvement has occurred in the financial situation of Polish households. Previously, the households achieved larger incomes and their expenditure was higher. The surplus of income over expenses has nonetheless increased, which offered the households a better saving potential. In 2017, the average monthly disposable (available) income, in per-capita terms, was PLN 1,598 (rounded off to PLN 1), thus proving higher, in real terms, by 6.3% than the 2016 income. The average monthly spend of the households equalled, per capita, PLN 1,176 in 2017, and thus was higher (in real terms) by 1.9% compared to the 2016 figure. The expenditure on consumer goods and services (consumables) equalled PLN 1,127, on average, exceeding in real terms the corresponding 2016 rate by 2.1%. Based on initial reports, the households increased in 2018 their financial liabilities – by 4.8% y/y as of Q2 2018. Yet, their indebtedness related to disposable income remained moderate – i.e. 60.2% in Q2 2018.

According to NBP's November 2018 projection, the trend in Poland's GBP is expected to gradually go down (to 3.6% y/y and 3.4% y/y in 2019 and 2010, respectively). Household consumption will continuously be an important driver in the increase of domestic demand, which is expected to be fostered by continuing improvement in the labour market – the trend that has a positive bearing on disposable income and consumer sentiments. Another factor of positive impact on national demand is low interest rates and the related low cost of credit. In turn, the forecasted increase in prices of energy and downward GDP trends in the Euro zone will pose limitations to economic growth. As per the central path of NBP's projections, the CPI is expected to increase into 3.2% in 2019 and, subsequently, 2.9% in 2020. Apart from the risk related to future GDP growth in world economy, the main source of uncertainty for the projections is the pricing trends in the energy resources/fuels market, and how it may be translating into the costs borne by businesses/enterprises and prices of consumables.

Domestic financial market: current trends

As if follows from the report on Poland's financial stability for the year 2018, the domestic financial markets have been functioning undisturbed. From April to September 2018, the increase in the value of equity instruments in the United States, in connection with decreased variability of their prices and tightened monetary policy pursued by the FED, have resulted in a strengthening of the U.S. Dollar against a weakening attractiveness of return rates on investments in the emerging countries. As a result, the capital inflows, related to the search-for-yield trend, into the financial markets of these economies saw a deceleration in Q2 2018. Moreover, fears increased among investors that emerging market countries – China in particular – might see a decelerated economic growth; such sentiments are rooted, among other things, in the protectionist actions taken by the United States.

The depreciation of the Zloty currency against the USD and the transient increase in the variability of EUR/PLN and USD/PLN exchange rates might have deteriorated the attractiveness of Polish securities (stocks-and-bonds) for some foreign investors. Between early April and late September 2018, the EUR/PLN and USD/PLN rates increased by 2% and 8%, respectively. The Zloty depreciated against the Euro mainly owing to external factors; however, the depreciation was not quite significant, which attested that, compared to emerging markets' currencies, the Polish currency is perceived in more favourable terms by investors. The increase in the USD/PLN rate was much more considerable than EUR/PLN, which was caused by the aforementioned appreciation of U.S. Dollar against Euro. In April to September 2018, the margins in EUR/PLN (CIRS basis) transactions, allowing the domestic banks to collateralise open currency positions, remained negative.

Having gone through a short-timed depreciation phase (November to December 2016), the Zloty currency gradually strengthened against the Euro (as depicted in Fig. 5).

High significance has also been attached to the profitability of Polish Treasury bonds, whose prices in April to September 2018 remained stable; however, the attractiveness of these instruments decreased in the perception of foreign investors, in comparison to the bonds and/or debentures of certain developed coutries. As at end September, the profitability rates of Polish two-, five-, and ten-year Treasury debt securities performed, respectively, at 1.6%, 2.6%, and 3.2%, altogether making approx. 0.1 per cent less than as at end Q1 2018. Stabilised prices in these instruments' market were supported by, inter alia, no expected change in the NBP interest rates until the end of 2019 and fast pace of economic growth with its beneficial effect on current fiscal situation (among other factors). The quotations of CDS transactions for Poland's Treasury bonds have seen a slight increase in the period analysed. At the same time, differences in profitability rates of Polish and U.S. Treasury bonds were clearly lower compared to the previous period, which incited some global investors to look for debt securities with a more attractive return-to-risk ratio compared to domestic Treasury bonds.

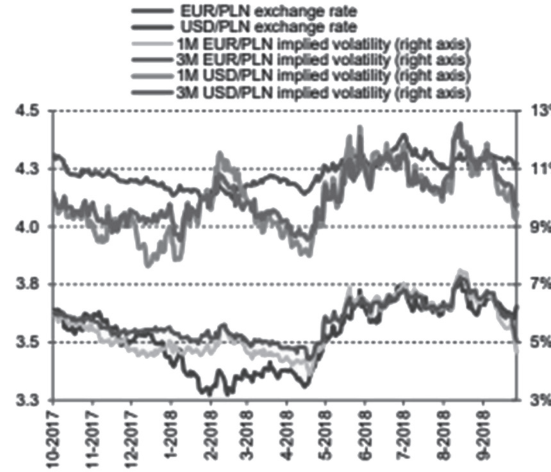


Figure 5. Zloty exchange rates against EUR and USD and volatility implied from EUR/PLN and USD/PLN options in 2017–2018

Source: own elaboration, based on NBP statistics.

Related to the global factors, a transitory decrease in non-residents' involvement in Polish Treasury bonds market seen in November and December 2016 resulted from the portfolio having been reduced by foreign investment and hedging funds – i.e. PLN 44.6bn as at end September 2016 into PLN 32.3bn as at end 2016. The mean maturity date of domestic Treasury bonds held by non-residents, in excess of five years, was clearly longer compared to the residents' portfolios (the data is depicted in Fig. 6).

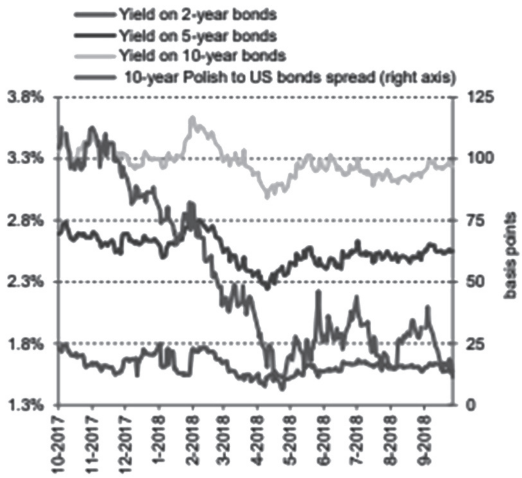


Figure 6. Yields on domestic government bonds and spread between the yields on Polish and US bonds in 2017–2018

Source: own elaboration, based on NBP statistics.

Banking sector trends

Between January and September 2018, the Polish banking sector remained stable, which was fostered by a steadily high growth in the economy, further improvement in the labour market, and ever-better sentiments amongst enterprises and consumers. The capital base remained stable. An increase in total own equity (funds) was seen in January to September 2018, from PLN 197.6bn as at end 2017 into PLN 209.0bn as at end September 2018 (i.e. by 5.8%), against a quite slight improvement in equity coefficients – particularly, Tier I, used to cover losses while the bank remains solvent. Such equity enables the bank to continue its normal operations and ensures its financial liquidity. Tier I saw a 17.2% to 17.3% increase, against the total equity coefficient's rate of 19.0% into 19.3%.

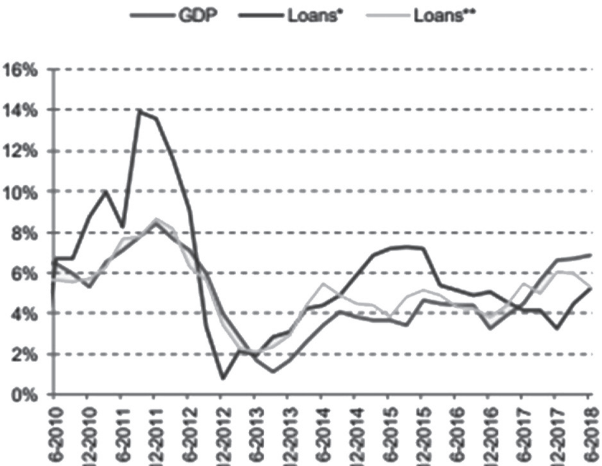
Table 2. Liquidity coverage ratio (LCR) for commercial banks

	Value (in PLN bn)				Change in 2018	
	09.2017	12.2017	06.2018	09.2018	PLN bn	%
Security against loss of liquidity	312.8	321.0	348.9	339.4	18.4	5.7%
Liquidity outflows, net	220.0	216.8	235.2	223.6	6.8	3.1%
Outflow coverage ratio, net	142.2%	148.1%	148.4%	151.8%		

Source: own elaboration, based on Polish Financial Supervision Authority [KNF] statistics.

The situation in current liquidity was continuously good; all the commercial banks met the binding LCR standard at 100%. (Some cooperative banks failed to satisfy the standard at entity/unit level but all were members of the International Protection Scheme [IPS] and had been granted consent from the national Financial Supervision Authority [KNF] to apply the group LCR norm, which they did observe.) A surplus of non-financial sectors' deposits over credits granted to this sector was continuously the case – as at the end of September 2018, the sector's credits/loans to deposits ratio equalled 93.5%, compared to 92.2% as at end 2017. With a satisfactory situation in current liquidity, actions have been continually recommended for increased stability of funding sources.

New lending for the non-financial sector has remained moderate, causing no imbalance that would otherwise have posed a threat to financial stability, and no barriers to the economic development whatsoever. The rates depicted in Fig. 7 in the non-financial sector lending show a slightly lower trend compared to the growth in nominal GDP, amounting to 5.3 y/y as at the end of June 2018. The increase in lending was favoured by a low interest rate environment, the baking sector being adequately furnished with capital, high economic growth, and favourable situation in the labour market.



Note: Loans* – annual growth rate, 3-month moving average; Loans** – annual growth rate after adjusting for foreign exchange rate changes, 3-month moving average.

Figure 7. Growth rate of nominal GDP (left-hand panel) and selected categories of loans to the non-financial sector (right-hand panel), y/y

Source: own elaboration, based on NBP statistics.

As for consumer loans, they have been increasing at a faster pace. The high trends in consumer lending was primarily based on the business cycle and reflected the structure of economic growth, with the dominantly featured private consumption. Consumer optimism has proved historically high whereas the demand for lending increased commensurably to the rising salaries.

In comparison to the other EU countries, the value of consumer loans granted in Poland has been relatively high. Poland's share of consumer loans in the total lending (loans and credits) is considerably high – namely, 17%. At the end of June 2018, consumer loans in this country equalled 8.7% of the GDP, which exceeds the Euro-zone average of 5.9% and proves to be lesser only compared to Bulgaria (9.5%), Greece (11.7%), and Cyprus (11.7%). What it means is that the shaping of the value and quality of this particular lending portfolio has a relatively more significant impact on the situation of Polish banks compared to their EU peers, and thus calls for special attention.

Polish households' notable indebtedness due to consumption loans, together with a change in these loans' characteristics, are indicative of the need to carefully monitor and analyse the risk or exposure related to this particular section of credit portfolio – both on the part of the banks and financial safety net institutions.

As for new lending to enterprises, no change has been observed that might have had a bearing on the risk/exposure levels. For the period under analysis, the annual trends in enterprise lending has gone down, in spite of no significant change in the lending policy taking place.

The macroeconomic forecasts and structural conditions/determinants indicate that the risk of occurrence of excessive increase in credits/loans, in aggregate, is low. The GDP projection points to a decelerated economic growth in the by-2020 horizon, which should imply shrinking demand for lending.

Characteristic of the banking sector has been a stable financing/funding structure, with a dominant proportion of deposits of non-financial entities. The role of other sources of funding, including own issuances of debt instruments, continued to be not-quite-significant. Consequently, the risk of funding of banks was primarily related to temporal mismatch of assets and liabilities (Fig. 8) and the need to have the deposit base renewed; the latter has been particularly true for cooperative banks whose share of deposits in their total assets has been clearly higher (approx. 80%).

The risk related to contractual mismatches of assets and liabilities has been restricted through a highly stable deposit base. This is fostered by a high share of retail funds in non-financial sector's deposits. Household deposits (amounting to approx. 70% of non-financial sector deposits) are characterised by considerable entity-related fragmentation, which makes them not prone to massive outflows due to the effect of the guarantee mechanism.

The liquidity situation of the banking sector has remained good. The share of liquid assets in the balance-sheet total has increased, this being mainly due to an increase in the Treasury bonds and NBP money bills portfolio.

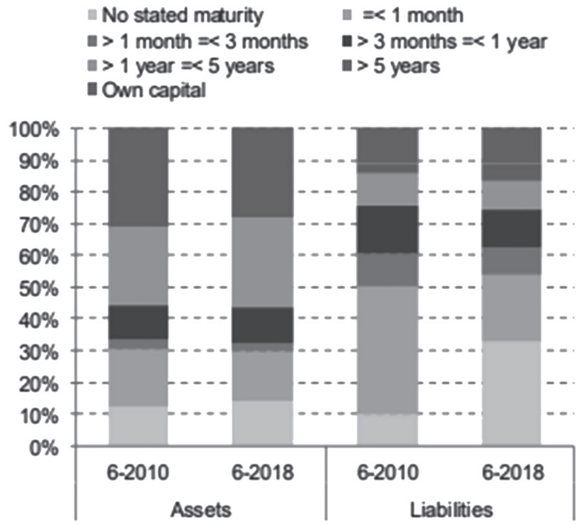


Figure 8. Temporal structure of Polish banking sector's assets and liabilities in 2010–2018

Source: own elaboration, based on NBP statistics.

The financial results and the profitability ratios have improved for the banking sector. These increase ratios/indicators have been owed, in the first place, to the large and best-performing banks. Among the cooperative banks (especially, big and medium-sized ones), the average profitability ratios have deteriorated, which may render it more difficult for them to have their own funds increased. A definite majority of the institutions has earned a positive financial result. The number of negative-profitability banks and their proportion in the banking sector's assets have remained fairly low, as have the amounts of losses incurred by these institutions.

The equity position of domestic banks has remained stable. The capital endowment of most of the banks has enabled to satisfy the binding capital/equity requirements under Pillars I and II and to meet the equity buffers in force.

Further increase in capitals/equities may pose a challenge to the banks in the years to come. The capitals are indispensable for the banking activity to develop and expand, whilst also being potentially of use in fulfilling the minimum requirement for own funds and eligible liabilities (MREL). Retained profit will probably continue to be the main source of increase in the banks' own capitals/funds; yet, owing to the lower-performing profitability in the recent years, such retained profits may prove unsatisfactory for the purpose. Profitability performing below the estimated implied cost of capital may further restrict the potential to acquire capitals from external sources. For issuances of instruments classed as additional capital under Tier I (AT1) and Tier II, legal limitations may have a say as well. (See Fig. 9 for more details.)

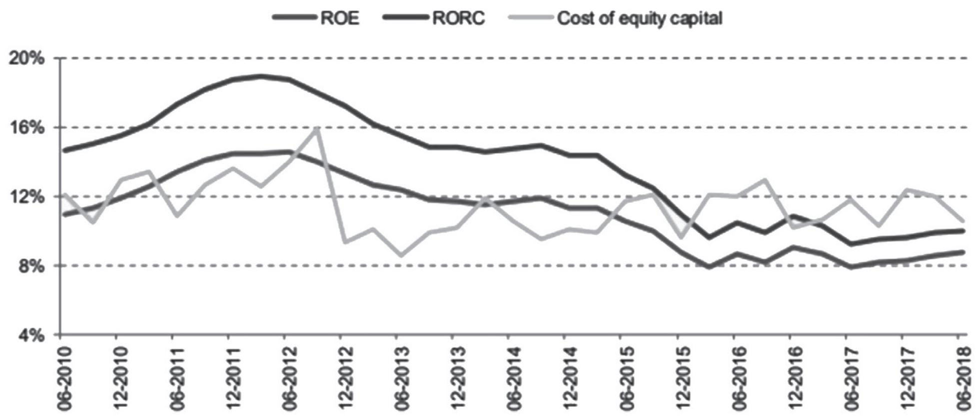


Figure 9. Cost of capital compared to return on equity in banking sector in 2010–2018

Source: own elaboration, based on NBP statistics.

Conclusions

The key factor in stabilisation of the State's financial situation is, permanently, the Central Bank's strivings for ensuring stability of prices and pricing. The Polish National Bank meets this objective through the inflation target strategy. In the period concerned, the CPI performed positively, at levels confined within the assumed range of deviation. In parallel, the economic growth pace was stable and close to the long-term trend; in the economy, no macroeconomic imbalances have increased whatsoever.

The experiences of global financial crisis indicate that keeping inflation low is an important, though insufficient, condition for maintaining a balance in the economy. Having this in mind, NBP supports its monetary policy with an adequate macro-prudential policy.

Sustained stability of the banking system is of particular importance to the stability of the financial system. This is so owing to the role the banks play in the funding of the economy as well as in payment settlements. another important function of the banks is generating products that enable other entities the manage their financial risks. Hence, the particularly strong emphasis placed on analysis and evaluation of stability of the banks. Of the discussed areas of systemic risk, which have been disclosed in the indirect macro-prudential policy's objectives, no risk has been identified that would have challenged the financial stability; all the same, certain trends in individual segments of the bank's lending portfolio need being monitored with special attention.

The present-day challenges due to the occurring threats to financial stability, while prices continue to be stable, require intensified attention from the central banks. Among the instruments that allow central banks to alleviate the tensions in the financial system, information policy is quite important. Appropriate communication with the market and the society calls, however, for clear rules as well. No legal provision in place with respect to NBP's tasks related to supporting financial stability may pose a difficulty in explaining the reasons behind the Central Bank's engagement in issues related to the functioning of the financial system. This is particularly important while other safety net institutions base their activities upon the relevant regulation(s). Such a situation may imply difficulties in the division of competencies and responsibilities. Therefore, a clearly defined mandate in the form of legal provision(s) would provide more favourable operating conditions to the central banks whilst also facilitating clear communication of their decisions with financial markets, other safety net institutions and, last but not least, the general public.

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