



NARODOWY  
BANK POLSKI

Monetary Policy Council

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# Report on monetary policy in 2022



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Warsaw, May 2023

In presenting the *Report on Monetary Policy*, the Monetary Policy Council acts in accordance with Article 227 of the Constitution of the Republic of Poland, which imposes the obligation on the Council to present a report on the achievement of the purposes of monetary policy within 5 months following the end of the fiscal year. In accordance with Article 53 of the Act on Narodowy Bank Polski, the *Report on Monetary Policy* is announced in the Official Gazette of the Republic of Poland, the *Monitor Polski*. The *Report* presents the main elements of the monetary policy strategy, a description of macroeconomic conditions and decisions taken with respect to monetary policy in the year under review, as well as a description of the monetary policy tools applied.

The *Report on Monetary Policy in 2022* is accompanied by the appendices presenting selected macroeconomic data, as well as by *Voting records of the Monetary Policy Council members on motions and resolutions* in the year the *Report* encompasses.

An ex-post assessment of the conduct of monetary policy should take into account, above all, that the decisions of monetary authorities affect the economy with a considerable lag and that they are taken under uncertainty about future macroeconomic developments. Moreover, the economy is subject to macroeconomic shocks that – while remaining outside the control of the domestic monetary policy – may to a large extent affect economic conditions and domestic inflation developments in the short and sometimes in the medium term. In recent years, macroeconomic shocks have been primarily associated with the economic impact of the COVID-19 pandemic and Russia's military aggression against Ukraine. Due to their particular strength and persistence, these shocks significantly affected the macroeconomic situation, including inflation developments, globally and in Poland.

The *Report on Monetary Policy in 2022* is a translation of the publication of Narodowy Bank Polski entitled *Sprawozdanie z wykonania założeń polityki pieniężnej na rok 2022*. In case of discrepancies, the Polish version prevails.

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# 1. Monetary policy strategy in 2022

In 2022, the Monetary Policy Council (hereinafter the Council or the MPC) conducted monetary policy in line with the *Monetary Policy Guidelines for 2022*, adopted by the resolution no 8/2021 from 8 September 2021 on formulating monetary policy guidelines for 2022. The main elements of the monetary policy strategy pursued in 2022 are presented below.

As in previous years, the main objective of monetary policy was to maintain price stability, while supporting sustainable economic growth and financial system stability. This way, the Council pursued the basic objectives of Narodowy Bank Polski set out in the Constitution of the Republic of Poland of 2 April 1997 (Journal of Laws, No 78, item 483, Journal of Laws of 2001, No 28, item 319, Journal of Laws of 2006, No 200, item 1471, Journal of Laws of 2009, No 114, item 946) and the Act on Narodowy Bank Polski of 29 August 1997 (Journal of Laws of 2022, item 2025). According to Article 227 Section 1 of the Constitution of the Republic of Poland “Narodowy Bank Polski shall be responsible for the value of Polish currency.” The Act on Narodowy Bank Polski (hereinafter NBP) states in Article 3 section 1 that “the basic objective of the activity of NBP shall be to maintain price stability, while supporting the economic policy of the Government, insofar as this does not constrain the pursuit of the basic objective of NBP.”

The Council had been pursuing the price stability objective by using an inflation targeting strategy. Under this strategy, since 2004 the monetary policy objective has been to keep inflation – understood as the annual change in the consumer price index – at 2.5%, with a symmetric band for deviations of  $\pm 1$  percentage point in the medium term. In 2004–2022 period, the average inflation in Poland amounted to 2.9%, thus it was in line with the NBP target, although in some years price growth strayed outside the defined band for deviations from the target.

The medium-term nature of inflation target means that – due to macroeconomic and financial shocks – inflation may temporarily deviate from the target and even run outside the band for deviations from the target. The response of monetary policy to shocks is flexible and depends on their causes and the assessment of persistence of their consequences, including the impact on inflation developments. Each time inflation deviates from the target, the Council flexibly determines the desirable time necessary to bring it back to the target, as bringing inflation rapidly back to the target may entail significant costs to macroeconomic and financial stability. In the *Monetary Policy Guidelines for 2022* it was indicated, that when deciding on the changes of monetary policy parameters, the Council would take into consideration the need to accommodate price adjustments that are mostly related to the return of the economy to the sustainable growth path after the COVID-19 pandemic shock, to the process of Poland’s convergence to the more advanced economies and to the consequences of the structural changes taking place in the economy, including the energy transition.

The monetary policy strategy pursued by the Council assumes flexibility of the instruments applied. This means that the range of instruments used by NBP can be adapted to the nature of disturbances observed in the economy and market conditions. The flexible use of monetary policy instruments is conducive to effective functioning of the transmission mechanism as well as macroeconomic and financial stability.

While taking monetary policy decisions, the Council considers the time lags in the transmission mechanism of monetary policy. The time lag between a decision on monetary policy parameters and its peak impact on real variables (such as output or employment) and on inflation takes several quarters and may change over time. Moreover, monetary policy is conducted under uncertainty, in particular about future economic developments.

Stabilising inflation at a low level is an important, yet insufficient condition to maintain balance in the economy, which, in turn, supports price stability in the long term. Imbalances in the financial sector may pose a threat to long-term price stability. Those imbalances should be counteracted mainly by macroprudential policy aimed at reducing systemic risk and in that manner supporting long-term, sustainable economic growth. This is important especially amid the free movement of capital and highly integrated financial markets. Monetary policy conducted by the Council supports macroprudential policy and in particular is conducive to financial system stability and mitigates the risk of imbalances building up in the economy, by taking into account in its decisions developments in asset prices (including real estate prices) and lending growth insofar as this does not constrain the pursuit of the basic objective of NBP.

Besides monetary and macroprudential policy, fiscal policy plays an important role in maintaining macroeconomic stability. A fiscal policy which mitigates the impact of economic shocks, while ensuring long-term stability of public finance, is necessary to maintain macroeconomic stability.

In 2022, as in previous years, the Council implemented the inflation targeting strategy under the floating exchange rate regime. The floating exchange rate regime does not rule out interventions in the foreign exchange market whenever it is warranted by the market conditions or conducive to ensuring the country's macroeconomic or financial stability.

## 2. Monetary policy and macroeconomic developments in 2022

In 2022, monetary policy parameters, including the level of the NBP interest rates, were adjusted according to the situation in the economy, with a view of ensuring price stability while supporting sustainable economic growth and the stability of the financial system. The Council's monetary policy decisions were made on the basis of available information, taking into account the assessment of the causes and persistence of the shocks affecting economic situation, in particular, inflation developments.

An important factor shaping the macroeconomic environment of the NBP monetary policy in 2022 was the onset of Russia's military aggression against Ukraine in February 2022. Data available before the launch of the Russian invasion indicated that in many economies, including Poland, an economic recovery following the COVID-19 pandemic crisis was taking place amid a concurrent rise in commodity prices, which resulted in accelerated global inflation. The onset of the Russian invasion significantly boosted commodity price growth; this was accompanied by a rise in uncertainty and a deterioration in economic agents' sentiment, as well as a weakening of the exchange rates of some economies, including the Polish zloty. At the same time, disruptions in international trade persisted. In effect, global economic activity growth declined gradually, while inflation rose sharply in many countries, reaching the highest levels in decades and significantly exceeding central banks' targets.

Also in Poland, inflation picked up considerably in 2022, largely on the back of the sharp rise in global commodity prices (the annual consumer price index in 2022 was 14.4%). Inflation was additionally boosted by the effects of the global supply chain disruptions and high transportation costs in international trade. Under such circumstances, operating costs of enterprises were increasing, which – amid the initially fairly high, but declining over time, demand growth – inclined firms to raise prices of consumer goods, contributing to higher core inflation. This was accompanied by a favourable situation in the domestic labour market, including low unemployment and higher nominal wage growth than in previous years.

Given the impact of the negative external supply shocks, which, on the one hand, added considerably to inflation and, on the other, hampered economic activity growth, and also in view of the strong labour market conditions, in the first three quarters of 2022 the risk of inflation running above the NBP inflation target in the monetary policy transmission horizon was significant. In order to reduce this risk, at its meetings between January and September 2022<sup>1</sup>, the Council raised the NBP interest rates eight times, including the reference rate in total from 1.75% to 6.75%<sup>2</sup> – following the previous three interest rate increases effected in 2021 Q4 (Table 1). In February 2022, the Council also decided to increase the basic required reserve ratio from 2.00% to 3.50% as of the April required reserve maintenance period.

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<sup>1</sup> Meetings on the following dates: 4 January, 8 February, 8 March, 6 April, 5 May, 8 June, 7 July and 7 September 2022.

<sup>2</sup> On 8 February 2022, the Council also decided to increase the basic required reserve ratio from 2.0% to 3.5%.



The total scale of increases in the NBP reference rate between October 2021 and September 2022 was 6.65 percentage points, the largest in the Council's history (i.e. since 1998). In 2022 Q4, the NBP reference rate was at its highest level since the NBP inflation target was set at the current level (i.e. since 2004; Figure 1).

The tightening of monetary policy by the Council resulted in a significant rise in interest rates in the economy, including an increase in lending rates and rates on household and corporate deposits, as well as higher bond yields. This was conducive

to a marked weakening in the growth of credit and monetary aggregates.<sup>3</sup> Most notably, in 2022 Q4 the annual rates of growth in lending to households and in the M1 aggregate were distinctly negative.

In 2022 Q4, available information indicated that the weakening of the global economic conditions and the decline in commodity prices, as well as the related expected decrease in inflation abroad would contribute to reducing inflationary pressures in the Polish economy as well. It was judged that the flagging domestic economic growth, including reduced consumption, and slower lending growth would work in the same direction. In these circumstances, the Council judged that the hitherto significant tightening of the NBP monetary policy would support a decline in inflation in Poland towards the NBP inflation target. At the same time, given the strength and persistence of the shocks, which remained beyond the impact of domestic monetary policy, it was indicated that in the short term inflation would remain high, and its return to the target would be gradual. This assessment was supported by the forecasts made at the end of 2022, including the November inflation and GDP projection. As a result, the MPC kept the NBP interest rates unchanged at its meetings from October to December 2022.

Figure 1. NBP reference rate



Source: NBP data.

<sup>3</sup> The monetary and credit aggregate growth data cited in the *Report* are defined as annual growth resulting from transaction changes. The data refer to monetary financial institutions.

Table 1. NBP interest rates at the end of the respective months (per cent)

Month	Reference rate	Lombard rate	Deposit rate	Rediscount rate	Discount rate
September 2021	0.10	0.50	0.00	0.11	0.12
October 2021	0.50	1.00	0.00	0.51	0.52
November 2021	1.25	1.75	0.75	1.30	1.35
December 2021	1.75	2.25	1.25	1.80	1.85
January 2022	2.25	2.75	1.75	2.30	2.35
February 2022	2.75	3.25	2.25	2.80	2.85
March 2022	3.50	4.00	3.00	3.55	3.60
April 2022	4.50	5.00	4.00	4.55	4.60
May 2022	5.25	5.75	4.75	5.30	5.35
June 2022	6.00	6.50	5.50	6.05	6.10
July 2022	6.50	7.00	6.00	6.55	6.60
August 2022	6.50	7.00	6.00	6.55	6.60
September 2022	6.75	7.25	6.25	6.80	6.85
October 2022	6.75	7.25	6.25	6.80	6.85
November 2022	6.75	7.25	6.25	6.80	6.85
December 2022	6.75	7.25	6.25	6.80	6.85

Source: NBP data.

The following part of the Chapter provides information on the macroeconomic background to the Council's decisions in 2022, which is presented in terms of two sub-periods, i.e. 2022 Q1-Q3 and 2022 Q4.

### Monetary policy and macroeconomic developments in 2022 Q1-Q3

Incoming data in early 2022 (i.e. before Russia's military aggression against Ukraine) indicated that global economic activity – following a robust recovery in 2021 – continued to expand, although some countries were experiencing a downturn. Global activity growth benefited from the recovery in consumer demand after the pandemic crisis. This was supported by improving labour market conditions and the smaller scale of epidemic restrictions than the year before. In turn, starting from early 2022, global economic activity was negatively affected primarily by high prices of commodities<sup>4</sup> and supply goods, coupled with the persistent severe disruptions in global supply chains, manifested in limited availability of materials and production components as well as their rising prices.

Following the onset of Russia's military aggression against Ukraine in February 2022, there was a renewed sharp increase in commodity prices, including those of energy and agricultural commodities, amid concerns about their availability in view of the prospect of restricted supply, primarily from Russia (Figure 2, Figure 3, Figure 4). Due to the continued steep growth, the average Brent oil price in June 2022 was approximately twice as high as its pre-pandemic average (i.e. the average of 2015-2019). And although the price of oil declined in 2022 Q3 due to the global economic downturn, it remained above

<sup>4</sup> The average price of oil (oil prices quoted in the *Report* refer to Brent oil quotations in US dollars per barrel) in January 2022 compared to the average before the outbreak of the COVID-19 pandemic (i.e. 2015-2019 average) was roughly 50% higher, the price of natural gas (natural gas prices quoted in the *Report* refer to *futures* contracts quotes for natural gas delivered to the Dutch TTF hub in US dollars per megawatt hour) was approximately 5 times higher, the price of coal (coal prices quoted in the *Report* refer to quotes for hard coal *futures* contracts at Richard's Bay in US dollars per tonne) was approximately 2 times higher, and the index of global agricultural commodity prices (in euros) was approximately 30% higher.

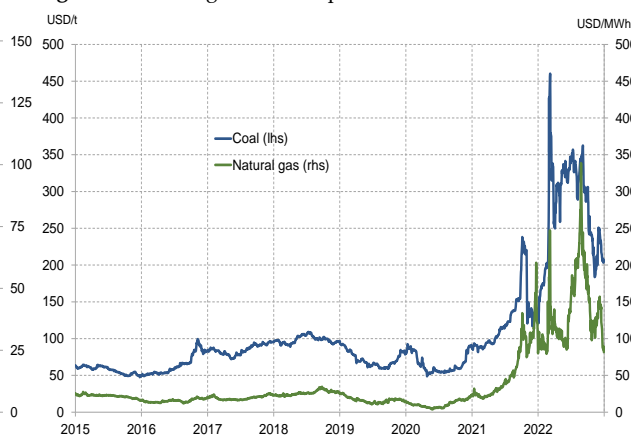
its pre-pandemic average. Directly upon the onset of the Russian invasion there was also a sharp rise in natural gas prices in the European market; these prices subsequently fluctuated considerably, running at much higher levels than in previous years. In 2022 Q3, the average price of gas temporarily reached record levels at approximately ten times higher than before the pandemic, due to major concerns about the availability of this commodity in Europe during the winter season in connection with the restricted supply from Russia.<sup>5</sup> In turn, prices of coal in international markets – after a sharp rise at the beginning of 2022 – were running high in the following months, but declined over 2022 Q3. The launch of the Russian military aggression against Ukraine also contributed to a further increase in the prices of agricultural commodities, associated with the reduced supply of some of them and severe cost pressures (resulting from higher energy and input prices, including fertilisers<sup>6</sup>). During the period March-September 2022, the agricultural commodity price index was on average around 60% higher than its pre-pandemic average.

**Figure 2.** Brent oil barrel price



Source: Bloomberg data.

**Figure 3.** Natural gas and coal prices



Source: Bloomberg data, NBP calculations.

Besides fuelling the rise in commodity prices, Russia's military aggression against Ukraine contributed to a marked increase in uncertainty about the global economic outlook and a deterioration in the sentiment of economic agents, accompanied by the persistence of severe global supply chain disruptions. In these conditions, and against the background of monetary policy tightening by many central banks, in the first three quarters of 2022 incoming data<sup>7</sup> and forecasts pointed to a gradual decline in annual activity growth and a weakening of economic outlook for Poland's external environment (Figure 5). Many institutions also pointed to the increased risk of recession in the euro area in the subsequent quarters, especially in Germany.<sup>8</sup>

<sup>5</sup> In the wake of the launch of Russia's aggression against Ukraine, Gazprom limited its gas exports to the European Union (hereinafter EU) including by unilaterally cancelling contracts for the supply of this commodity as well as reducing – and, as of end-August 2022, entirely halting – gas transfer via the Nord Stream 1 pipeline.

<sup>6</sup> The increase in fertiliser prices was driven by higher natural gas prices and its reduced export from Russia and Belarus.

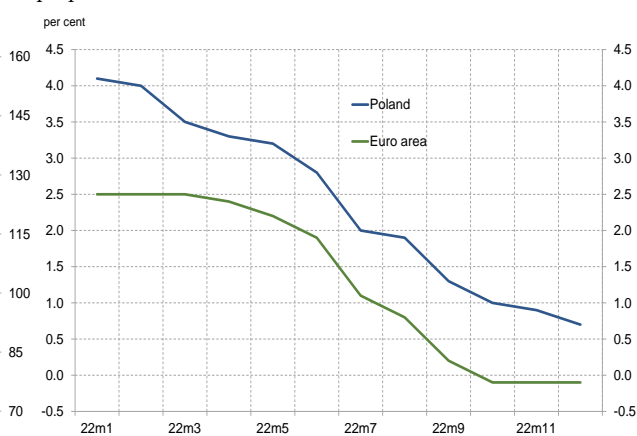
<sup>7</sup> In the euro area, GDP growth was 4.8% y/y in 2021 Q4, 5.5% y/y in 2022 Q1 and 4.4% y/y in 2022 Q2. In the United States, GDP growth amounted to 5.7% y/y in 2021 Q4, 3.7% y/y in 2022 Q1 and 1.8% y/y in 2022 Q2.

<sup>8</sup> The worst-case scenario presented in the European Central Bank's projection of June 2022, assuming, among other things a full cut-off of Russian natural gas supplies to Europe indicated a potential GDP decline of 1.7% in the euro area in 2023 (GDP in 2023 was to be 5.1% lower than in the baseline scenario). At the same time, the worst-case scenario put forward by the Bundesbank in June 2022 assumed that GDP in Germany would be lower than in the baseline scenario by an average of almost 7% in 2023. In turn, the International Monetary Fund, in the material published in July 2022, estimated that Germany's GDP would be 2.7% lower in 2023 than in the baseline scenario if gas supplies were cut off.

**Figure 4.** Index of agricultural commodity prices

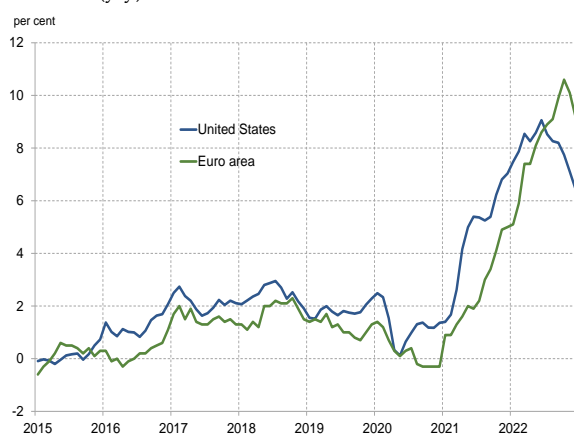
Source: Bloomberg data, NBP calculations.

Index of agricultural prices includes prices of wheat, colza, pigmeat, potatoes, sugar, cocoa, coffee, skimmed milk powder, butter and frozen concentrated orange juice. The weights reflect the consumption structure of Polish households.

**Figure 5.** The median forecast of analysts surveyed by Bloomberg for GDP growth in 2023 in the euro area and Poland prepared in 2022.

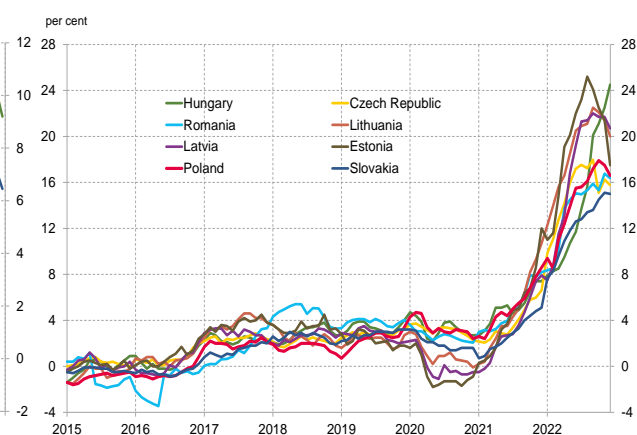
Source: Bloomberg data.

In the first three quarters of 2022, amid steep commodity price growth and protracted disruptions in international trade, inflation in most economies rose significantly, in many of them reaching the highest levels in decades. Core inflation was also rising, driven – in addition to the secondary effects of supply shocks – by robust demand growth related to its recovery from the pandemic crisis and rising labour costs. In the euro area, HICP inflation increased from 5.1% y/y in January 2022 to 9.9% y/y in September (Figure 6), which was then the highest reading in the history of this currency area. In the United States, meanwhile, CPI inflation – having risen from 7.5% y/y in January 2022 to 9.1% in June (the highest point since 1981) – fell to 8.2% y/y in September. In the first three quarters of 2022, inflation also rose sharply across the economies of the Central and Eastern Europe, including the region's euro area countries (Figure 7). In September 2022, HICP inflation was running at 22.5% y/y in Lithuania, 22.0% y/y in Latvia and 24.1% y/y in Estonia. In turn, in the Czech Republic CPI inflation reached 18.0% y/y, in Hungary 20.1% y/y and in Romania 15.9% y/y.

**Figure 6.** Consumer price inflation in the United States and the euro area (y/y)

Source: Bureau of Labor Statistics and Eurostat data.

The United States – CPI inflation. The euro area – HICP inflation.

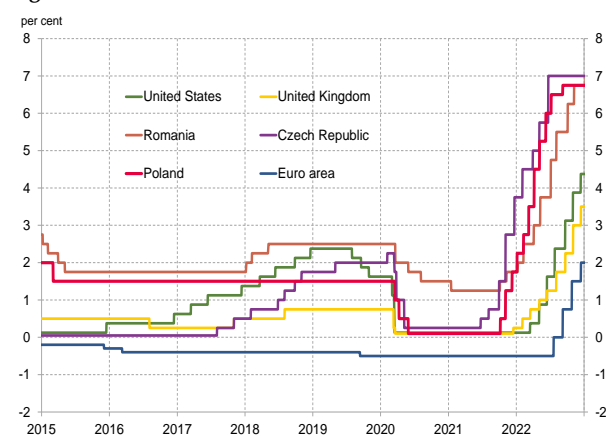
**Figure 7.** Consumer price inflation in CEE countries (y/y)

Source: Eurostat, OECD and national statistical offices data.

Poland, Czech Republic, Hungary – CPI inflation. Lithuania, Latvia, Estonia, Slovakia – HICP inflation.

In these conditions, the central banks of many economies tightened monetary policy during the first three quarters of 2022. The European Central Bank (hereinafter the ECB) terminated net asset purchases in June 2022 and raised interest rates in July (for the first time since 2011) and September, including the deposit rate in total by 1.25 percentage points (from -0.50% to 0.75%). The Federal Reserve of the United States (hereinafter the Fed) discontinued net asset purchases in March 2022 and between March and September, it increased the target range for the *fed funds* rate, in total by 3.00 percentage points (from 0.00-0.25% to 3.00-3.25%). At the same time, central banks of many other economies, including those in Central and Eastern Europe – which had embarked on monetary policy tightening earlier, i.e. in 2021 – continued raising policy rates (with the Czech Republic central bank keeping the rates unchanged in 2022 Q3, following prior hikes; Figure 8).

Figure 8. Interest rates of selected central banks



Source: Bloomberg data.

Central bank interest rate: for the United States – the midpoint of the *fed funds* range; for the euro area – the *deposit facility*; for the United Kingdom – *Bank Rate*; for Czech Republic – *repo 2W*; for Romania – *monetary policy rate*; for Poland – *NBP reference rate*.

In Poland, the data available at the beginning of 2022 pointed to an ongoing recovery, and forecasts suggested a continuation of favourable economic conditions in the following quarters. The onset of Russia's military aggression against Ukraine in February 2022, along with the economic consequences of the war, caused a deterioration in economic conditions and sentiment, coupled with a strong rise in uncertainty. This was accompanied by a depreciation of the currencies of some economies, including the Polish zloty. In the first three quarters of 2022, incoming information suggested that GDP growth was slowing down, which was also supported by the fading of economic recovery after the pandemic crisis. GDP growth in Poland stood at 8.8% y/y in 2022 Q1<sup>9</sup> (compared with 8.6% y/y in 2021 Q4), subsequently declining to 6.1% y/y in 2022 Q2. At the same time, in 2022 Q1 and Q2, annual consumption growth was relatively high, albeit significantly lower than in 2021 Q4. This was supported by the favourable labour market conditions and the additional demand related to the inflow of refugees from Ukraine, as well as the smaller extent of epidemic restrictions than the year before. Investment was on the rise as well. Yet, data from the end of the period under review pointed to a further decline in annual economic activity growth in 2022 Q3, and the July projection of inflation and GDP predicted a considerable slowdown in GDP growth in the following quarters.

Incoming information in the period under review suggested that labour market conditions were strong, which was reflected in particular by the low unemployment rate and marked nominal wage growth. Alongside that, the inflow of refugees from Ukraine in the aftermath of Russia's military aggression contributed to an increase in labour supply.<sup>10</sup>

In the first three quarters of 2022, inflation in Poland, like in many other economies, picked up (from 9.4% y/y in January to 17.2% y/y in September 2022). The increase in inflation was mainly due to a significant rise in commodity prices in the global markets. Factors boosting inflation also included

<sup>9</sup> In 2022 Q1, the greatest contribution to annual GDP growth was made by an increase in inventories.

<sup>10</sup> In turn, some of the Ukrainians – mainly men – previously working in Poland returned to Ukraine after the launch of the Russian aggression.

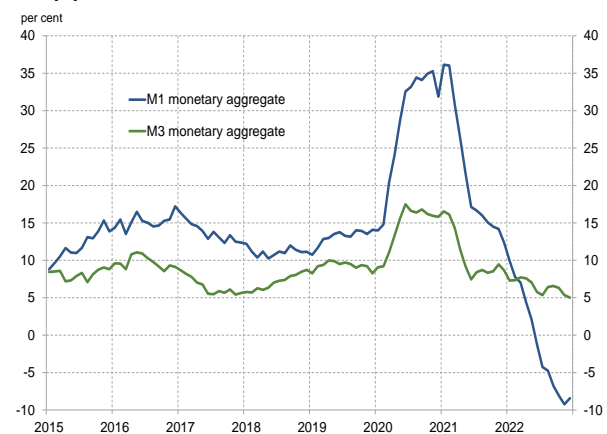
increases in the regulated national tariffs for energy carriers at the beginning of 2022.<sup>11</sup> The higher commodity prices were reflected in steep food and energy price growth, and – coupled with the protracted disruptions in international trade – they contributed to higher operating costs of enterprises. In turn, demand growth, in spite of its declining momentum, inclined firms to raise the prices of consumer goods. Consequently, core inflation was also on the rise. Meanwhile, inflation was curbed by a reduction in some tax rates under the Anti-inflationary Shield.<sup>12</sup> Forecasts received after the onset of Russia's military aggression against Ukraine indicated that inflation in the following quarters would be higher than previously forecast.

Given the impact of the negative external supply shocks significantly boosting inflation and hampering economic growth, and in view of the favourable situation in the labour market, the Council judged that macroeconomic conditions in the first three quarters of 2022 pointed to a significant risk of inflation running above the target in the monetary policy horizon. In order to reduce this risk – in other words, striving to decrease inflation down to the NBP target in the medium term – the Council raised the NBP interest rates eight times, including the reference rate in total from 1.75% to 6.75%, following the previous three interest rate increases effected in 2021 Q4. In February 2022, the Council also decided to increase the basic required reserve ratio from 2.00% to 3.50%, starting from the April required reserve maintenance period.

NBP rate increases contributed to a rise in interest rates on household and corporate loans and deposits (Figure 10). Bond yields also increased. At the same time, annual growth in household loans was declining markedly in the first three quarters of 2022, moving into the negative territory from 2022 Q3 (Figure 11), while corporate loans were rising markedly. Annual growth in the M3 monetary aggregate declined over the period under review, remaining apparently positive in nominal terms and negative in real terms since the beginning of 2022. In contrast, annual growth in the M1 aggregate in nominal terms was negative from June 2022

(Figure 9) and in real terms from February 2022. Alongside that, there was a change in the structure of household deposits, including a shift of some funds from current deposits to term deposits, due to a more significant increase in the interest rates on term deposits.

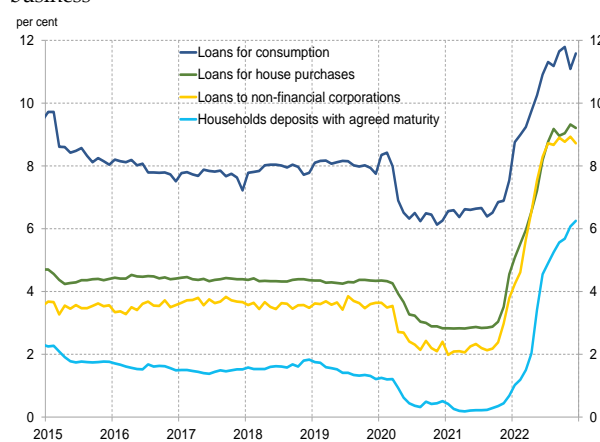
**Figure 9.** Nominal growth rates of monetary aggregates M1 and M3 (y/y)



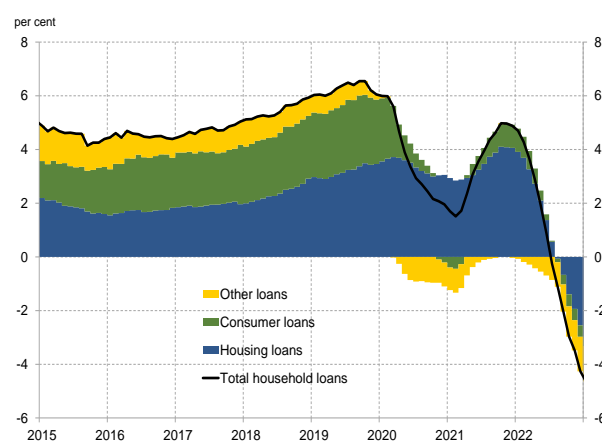
Source: NBP data.

<sup>11</sup> The increase in tariffs was a result of the strong rise in global prices of natural gas and the increase in wholesale electricity prices and prices of CO<sub>2</sub> emission allowances (due to the EU climate policy).

<sup>12</sup> The so-called Anti-inflationary Shield is a package of fiscal policy measures. In 2022, these included a temporary reduction in VAT rates on electricity, heat energy, natural gas, motor fuels, fertilisers and staple foods, the abolition of excise duty on electricity for households, a reduction of excise duty on motor fuels and light heating oil to the minimum level required by EU provisions, and compensation for natural gas distributors in connection with the cap on the increases in the prices of this commodity for tariff-protected recipients.

**Figure 10.** Average interest rates on new and renegotiated business

Source: NBP data.

**Figure 11.** Composition of growth in household loans (y/y)

Source: NBP data.

The category *Other loans* covers credit card loans, loans to individual entrepreneurs and individual farmers, as well as other receivables.

## Monetary policy and macroeconomic developments in 2022 Q4

In 2022 Q4, available data indicated a marked deterioration in economic conditions in the external environment of the Polish economy. The weakening activity growth – observed despite the persistently favourable labour market conditions in many economies, including low unemployment – resulted from high prices of raw materials and supplies, uncertainty related to Russia's ongoing military aggression against Ukraine, global monetary policy tightening and deterioration in consumer sentiment.

This related in particular to the euro area economy, where GDP growth declined significantly in 2022 Q3<sup>13</sup>, and incoming data suggested further deterioration in economic conditions in 2022 Q4, including a considerable risk of a decline in activity.

Following the previous sharp growth, the global prices of many commodities declined in 2022 Q4, yet they persisted at a high level (Figure 2, Figure 3, Figure 4). In particular, global economic slowdown and the abatement of earlier concerns about possible supply shortages worked towards some reduction in commodity prices. However, the prices of some commodities remained several times higher than in previous years, dragging economic activity down.<sup>14</sup>

In 2022 Q4, inflation around the world continued to run high, although in some economies it declined slightly towards the end of the year. The persistently high commodity prices and the lagged effects of the earlier disruptions in international trade, alongside demand factors and rising labour costs, were a significant source of accelerated price growth. At the same time, core inflation also remained high in most economies. In the euro area, HICP inflation increased to 10.6% y/y in October 2022 (i.e. the highest point in the history of the euro area), and in the following two months it was decreasing (to 9.2% y/y in December 2022). During 2022 Q4, CPI inflation was also elevated in the United States, but was falling to reach 6.5% y/y in December (Figure 6). In the Central and Eastern European economies, price growth

<sup>13</sup> GDP growth in the euro area stood at 2.4% y/y in 2022 Q3 and 1.8% y/y in 2022 Q4. In turn, in the United States GDP growth amounted to 1.9% y/y in 2022 Q3 and 0.9% y/y in 2022 Q4.

<sup>14</sup> The average Brent oil price in December 2022 compared to the average before the COVID-19 pandemic (i.e. 2015-2019) was approximately 40% higher, gas price was approximately 6 times higher, coal price was approximately 3 times higher and the agricultural commodity price index was over 45% higher.

in 2022 Q4 remained high, despite a certain decline in most of them towards the end of the year (Figure 7). In several Central and Eastern European countries (Lithuania, Latvia and Hungary) inflation exceeded 20% in December 2022.

In these conditions, central banks in the external environment of the Polish economy raised interest rates or kept them unchanged after previous hikes (Figure 8). In 2022 Q4, the ECB increased interest rates twice, including the deposit rate to 2.00%. Interest rate hikes were also continued by the Fed; at the end of 2022, the target range for the *fed funds* rate was 4.25-4.50%. Among the central banks of the economies of Central and Eastern Europe, those in the Czech Republic and Hungary kept their key interest rates unchanged towards the end of 2022.

In Poland, data incoming in 2022 Q4 pointed to slowing economic activity growth. GDP growth dropped to 3.9% y/y in 2022 Q3, from 6.1% y/y in Q2, due to a combined effect of a decline in the annual growth of consumption and investment. Available information – including concerning the slowdown in real retail sales growth in annual terms – testified to a further significant decline in economic activity growth in 2022 Q4, amid flagging consumer demand.<sup>15</sup> Forecasts presented in 2022 Q4 predicted that GDP growth in 2023 would be markedly slower than in 2022 (Figure 5).

Information incoming at the end of 2022 suggested that despite the slowing economic activity growth, the situation in the labour market remained sound, including a low unemployment rate – although LFS data for 2022 Q3 pointed to a decline in the number of people employed. Average nominal wages continued to grow strongly, although in real terms annual wage growth was negative.

CPI inflation in Poland declined in the subsequent months of 2022 Q4 (it stood at 17.9% y/y in October, 17.5% y/y in November and 16.6% y/y in December). The decline in inflation in November and December was largely due to slower growth in the prices of energy carriers and fuels. However, inflation continued to run high, which was largely driven by the pass-through of high costs related to the persistently high commodity prices to consumer goods prices – notwithstanding the flagging demand growth. Along with the lingering effects of global supply chain disruptions – despite their gradual easing – this contributed to a rise in core inflation. Forecasts available in 2022 Q4 indicated that inflation would decline towards the NBP inflation target in the following years, but given the significant scale and persistence of the previous shocks, the fall was expected to be gradual, as in other economies. In line with the November inflation and GDP projection, under the assumption of unchanged NBP interest rates, inflation was to return to the NBP target in 2025.

Following the strong tightening of the NBP monetary policy in the previous quarters, in 2022 Q4 interest rates on loans and deposits were running high (Figure 10). The average interest rate on new and renegotiated housing loans was 6.3 percentage points higher in December 2022 compared to September 2021 (i.e. the period immediately before the first NBP interest rate increase in 2021), corporate loans 6.5 percentage points higher and household deposits 6.0 percentage points higher. The stock of household loans fell by 4.3% y/y in December 2022 (Figure 11). Annual growth in corporate loans declined during 2022 Q4, although it remained high at 9.5% y/y in December 2022. This was accompanied by a further decline in annual growth in monetary aggregates in nominal terms (Figure 9), amid negative annual growth in real terms. In December 2022, M3 aggregate growth was 5.0% y/y in nominal terms (i.e. it was

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<sup>15</sup> In 2022 Q4, GDP growth stood at 2.3% y/y, with a fall in consumption of 1.1% y/y.



more than three times lower than the annual nominal GDP growth in Q4 2022) and approximately -10% y/y in real terms, while M1 aggregate growth was -8.4% y/y in nominal terms and approximately -20% y/y in real terms. At the same time, during 2022 Q4 the zloty appreciated against the main currencies.

In sum, information available in 2022 Q4 indicated that the global economic downturn and the fall in commodity prices would have a downward effect on global inflation, which – together with weaker domestic economic growth, including a reduction in consumption, as well as slower credit growth – would contribute to reducing inflationary pressures in the Polish economy. Under such circumstances, the Council judged that the hitherto significant monetary policy tightening by NBP would support a decline in inflation in Poland towards the NBP inflation target. At the same time, given the strength and persistence of the shocks, which remain beyond the impact of domestic monetary policy, it was indicated that in the short term inflation would remain high, and its return to the NBP inflation target would be gradual. This assessment was supported by the forecasts available at the end of 2022, including the November inflation and GDP projection. Accordingly, at its meetings in October, November and December 2022 the Council kept the NBP interest rates unchanged, including the NBP reference rate at 6.75%.

## 3. Monetary policy instruments in 2022

In 2022, NBP conducted monetary policy using instruments provided for in the *Monetary Policy Guidelines for 2022*. In the first three quarters of 2022, NBP interest rates were raised and the level of the basic required reserve ratio was increased. In turn, in 2022 Q4 NBP interest rates and the basic required reserve ratio were kept unchanged.

### Banking sector liquidity in 2022

In 2022 there was a decrease in liquidity surplus prevailing in the banking sector in comparison with the previous year. The average daily level of funds at the disposal of the banking sector in excess of the required reserve stood at PLN 236 600 million in December 2022 and was PLN 17 266 million lower than in the corresponding period of 2021.<sup>16</sup>

The drop in the amount of funds at the disposal of the banking sector which took place during 2022 was primarily due to the increase in the basic required reserve ratio from 2.00% to 3.50%, starting from the April reserve maintenance period. As a result the required reserve in December 2022 was by PLN 30 320 million higher than in December 2021.

The reduction of liquidity surplus in the banking sector over 2022 was also driven by an increase in currency in circulation, particularly visible in the period immediately following the beginning of Russia's military aggression against Ukraine, between February and March of 2022. For this reason the amount of funds at the disposal of the banking sector declined by PLN 13 819 million, when comparison is made between the daily average of December 2022 to the daily average of December 2021.

On the other hand, there were factors contributing to higher liquidity surplus in the banking sector in 2022, primarily the foreign exchange transactions conducted by NBP, including the purchase of foreign currency, mainly from the Ministry of Finance. The increase was partially limited by the NBP sales of foreign currency, mainly to the European Commission. The prevalence of NBP purchases of foreign currency over its sales resulted in an increase of PLN 28 846 million in the funds at the disposal of the banking sector in 2022 (after a comparison of averages is made, as above).

As a result of reduced liquidity surplus in the banking sector, the average daily level of short-term monetary policy operations<sup>17</sup> in December 2022 stood at PLN 236 387 million, i.e. it dropped by PLN 12 463 million against the corresponding value from December 2021.

### NBP interest rates

The NBP interest rates were the key instrument of monetary policy in 2022. By determining the yield on main open market operations, the NBP reference rate influenced the level of short-term market interest rates.

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<sup>16</sup> In Chapter 3 the data and calculations are generally presented in a format where a given month, quarter or year refers to the corresponding reserve maintenance periods.

<sup>17</sup> This item encompasses: the main open market operations (issue of NBP bills), the fine-tuning operations (issue of NBP bills with maturities shorter than the main market operations) and the NBP standing facilities.

The NBP lombard rate determined the interest on the lombard credit offered by NBP, enabling overnight borrowing from the central bank. The NBP deposit rate determined the interest on the deposit facility, enabling placement of overnight deposits with NBP.

From January to September 2022 the MPC raised NBP interest rates on eight occasions. As a result the NBP reference rate was increased from 1.75% to 6.75%, the NBP deposit rate from 1.25% to 6.25%, and the NBP lombard rate from 2.25% to 7.25%.

In 2022, the NBP interest rate corridor, set by levels of the deposit rate and the lombard rate, was symmetric around the NBP reference rate and stood at +/-50 bps.

### **Open market operations**

In 2022, the operational target of monetary policy was to keep the POLONIA rate<sup>18</sup> close to the NBP reference rate. The main instrument to achieve this task was the main open market operations. By using these operations, NBP offered banks the opportunity to balance their liquidity positions during the required reserve maintenance periods, striving to ensure that liquidity conditions in the banking sector were appropriate in terms of achieving its operational target.

In 2022, the main open market operations were carried out on a regular weekly basis, in the form of issuance of NBP bills, usually with a 7-day maturity.<sup>19</sup> By using these operations, the central bank absorbed the majority of the excess funds at the disposal of the banking sector. The yields on the individual operations equalled the level of the NBP reference rate on the day of the operation. In 2022, NBP conducted 53 main operations. The average daily volume of NBP bills issued under these operations amounted to PLN 191 636 million and was PLN 13 875 million lower than in 2021 (Figure 12).

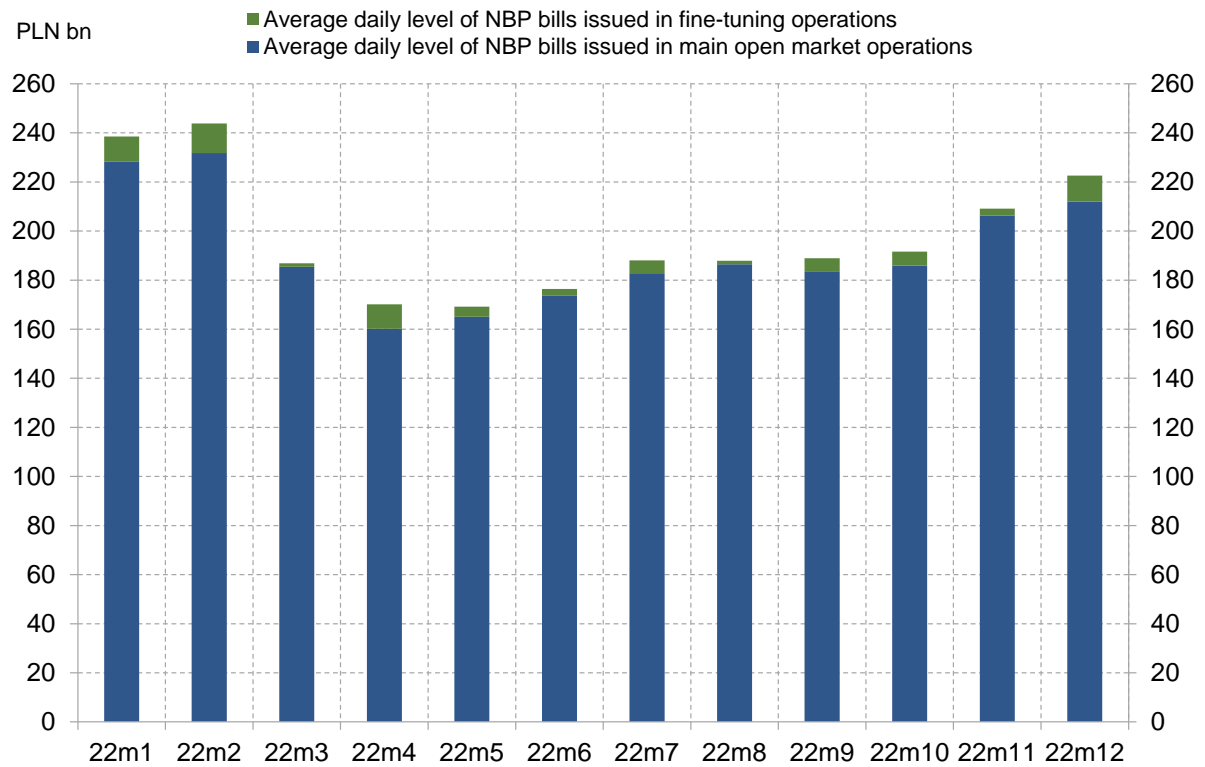
A complementary role with respect to the NBP operational target was played by the fine-tuning operations. In 2022 such operations were carried out in the form of issuance of NBP bills with a yield equal to NBP reference rate on the date of the operation. In 2022, NBP conducted 12 fine-tuning operations on the last days of the required reserve maintenance periods, and 21 fine-tuning operations on other days within such periods. Maturities of these operations varied from 1 day to 4 days. The average daily level of fine-tuning operations in 2022 amounted to PLN 5 998 million and was PLN 5 604 million higher than in 2021.

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<sup>18</sup> The POLONIA rate (*Polish Overnight Index Average*) is determined as the average (weighted by the volume of the individual transactions) of the interest rates on unsecured interbank overnight deposits on a given working day until 4.30 p.m. between the Participants in the POLONIA Reference Rate Fixing.

<sup>19</sup> Except for the operations conducted on 10 November (8-day maturity) as well as 4 November and 30 December (6-day maturity).

**Figure 12.** Average daily level of NBP liquidity-absorbing open market operations in individual required reserve maintenance periods in 2022 (nominal value of NBP bills)

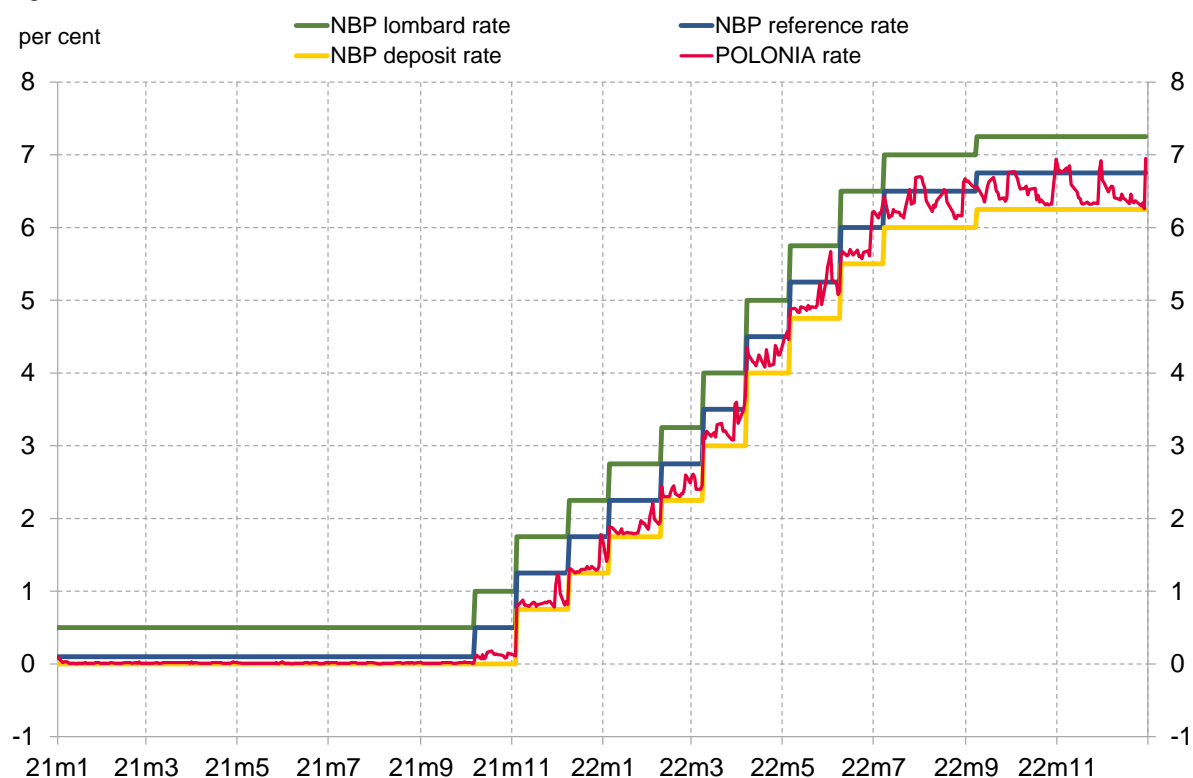


Source: NBP data.

In 2022 banks' increased caution in managing their liquidity positions observed since the outbreak of the COVID-19 pandemic was retained. In 2022, it was additionally motivated by the Russia's military aggression against Ukraine launched in February 2022. This caution manifested itself in banks' preference for investing surplus funds in instruments allowing the maximum flexibility in liquidity management, including the deposit facility offered by the central bank.

This attitude of banks towards managing own liquidity positions was reflected in the POLONIA rate (Figure 13). The average daily absolute deviation of this index from the NBP reference rate in 2022 amounted to 32 bps against 16 bps in 2021.<sup>20</sup> It should be stressed, though, that since October 2021 the width of the NBP interest rates corridor was constant at 100 bps (+/-50 bps around the NBP reference rate), while in the first three quarters of 2021 this corridor was half that size (50 bps) and shaped in an asymmetrical manner (+40/-10 bps).

<sup>20</sup> On account of the fact that the POLONIA rate is calculated in accordance with the act/365 convention, while for NBP bills issuance the act/360 convention is used, the average daily absolute deviation of this index from the NBP reference rate is based on a uniform 365-day year. By way of example, in the last quarter of 2022 this deviation was calculated following the recalculation of the NBP reference rate at 6.84%, which means that had the POLONIA rate stood in this period at the level of the NBP reference rate (6.75%), its absolute deviation from the said rate would have amounted to 9 bps.

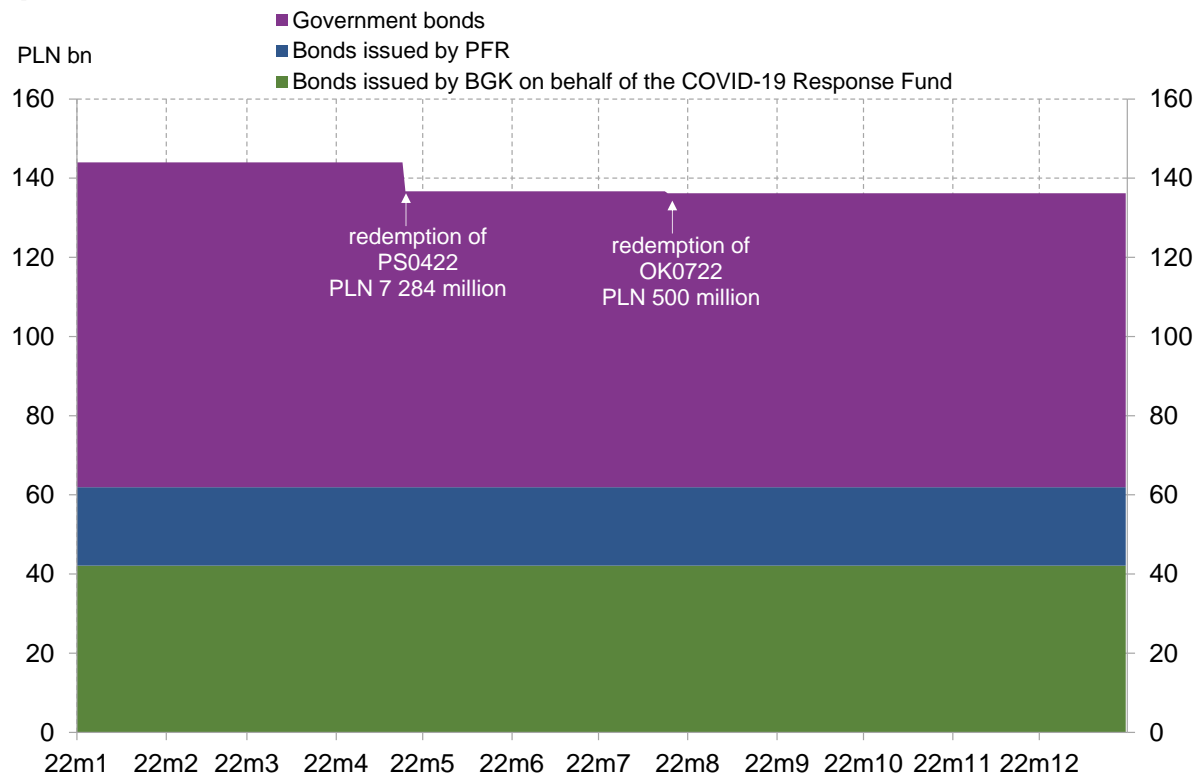
**Figure 13.** NBP interest rates and the POLONIA rate in 2021-2022

Source: NBP data.

In 2022, NBP did not conduct structural operations. At the end of 2022 the nominal value of the portfolio of securities (i.e. government bonds and government-guaranteed debt securities issued by Bank Gospodarstwa Krajowego on behalf of the COVID-19 Response Fund and Polski Fundusz Rozwoju SA) purchased by NBP in 2020-2021 amounted to PLN 136.2 billion, as compared to PLN 144.0 billion as at the end of 2021 (Figure 14).<sup>21</sup>

<sup>21</sup> In 2022, redemption of government bonds took place involving the PS0422 series (on 25 April) and the OK0722 series (on 25 July), whose nominal value in the NBP portfolio stood, respectively, at PLN 7 284 million and PLN 500 million.

**Figure 14.** The nominal value of portfolio of the bonds purchased by NBP in 2020 and 2021 as part of the structural open market operations



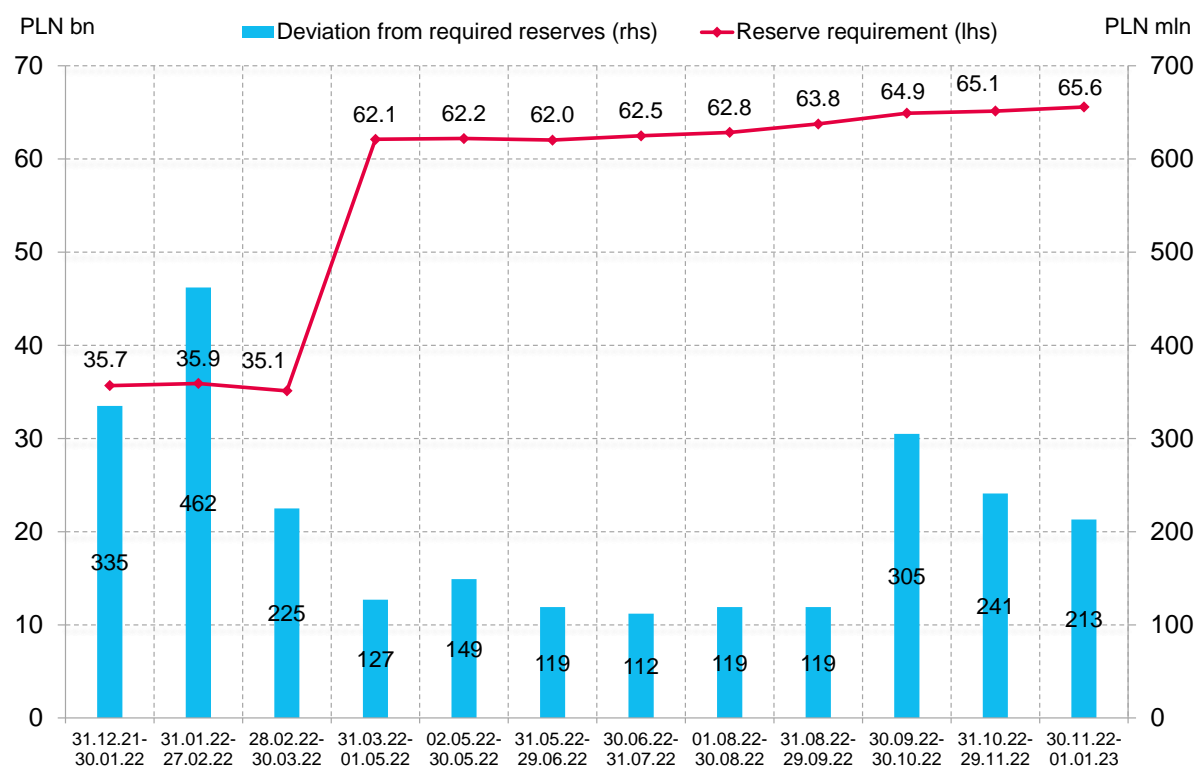
Source: NBP data.

### Reserve requirement

The required reserve system supported the achievement of the operational target of monetary policy, stabilising short-term market interest rates. The average reserve maintenance mechanism enabled entities covered by the required reserve system the freedom to decide on the amount of funds deposited on accounts with the central bank on particular days of the reserve period, provided that the average balance of funds in the accounts with NBP is maintained at a level not lower than the required reserve level.

In 2022, banks, branches of credit institutions, branches of foreign banks operating in Poland, credit unions and the National Association of Cooperative Savings and Credit Unions were subject to the reserve requirement.

**Figure 15.** Deviation of the average balance of the required reserve entities' accounts kept in NBP from the required reserve level in individual required reserve maintenance periods in 2022



Source: NBP data.

The required reserve level in December 2022 stood at PLN 65 570 million (including the commercial banks' required reserve at PLN 60 770 million, cooperative banks' required reserve at PLN 4 523 million, and the Cooperative Savings and Credit Union's required reserve at PLN 277 million). In comparison to the required reserve in December 2021 there was an increase in the above-mentioned reserve by PLN 30 320 million, which was primarily due to the increase in the basic required reserve ratio (starting from the April 2022 reserve maintenance period)<sup>22</sup> from 2.00% to 3.50%, i.e. to the level which was mandatory before the COVID-19 pandemic (Figure 15).<sup>23</sup>

The interest rate on the required reserve funds in 2022 corresponded to the NBP reference rate. Over the period under analysis, on account of the Council raising NBP interest rates, this rate grew from 1.75% to 6.75%.

In 2022, the average daily level of surplus funds held on accounts with NBP by required reserve entities (i.e. exceeding the amount of the required reserve) varied among the reserve maintenance periods from PLN 112 million to PLN 462 million.

In 2022, there were eight cases when entities failed to maintain the required reserve at the required level. Moreover, one bank benefited from partial exemption from the reserve requirement during 2022.

<sup>22</sup> The basic required reserve ratio applies to zloty denominated funds and funds in foreign currency held on bank accounts as well as funds obtained from the issue of securities. In 2022, the required reserve ratio for funds obtained in repo and sell-buy-back transactions as well as funds obtained for at least 2 years was 0.00%.

<sup>23</sup> The required reserve in the April 2022 reserve maintenance period increased by PLN 26 986 million in comparison with the level from March 2022.

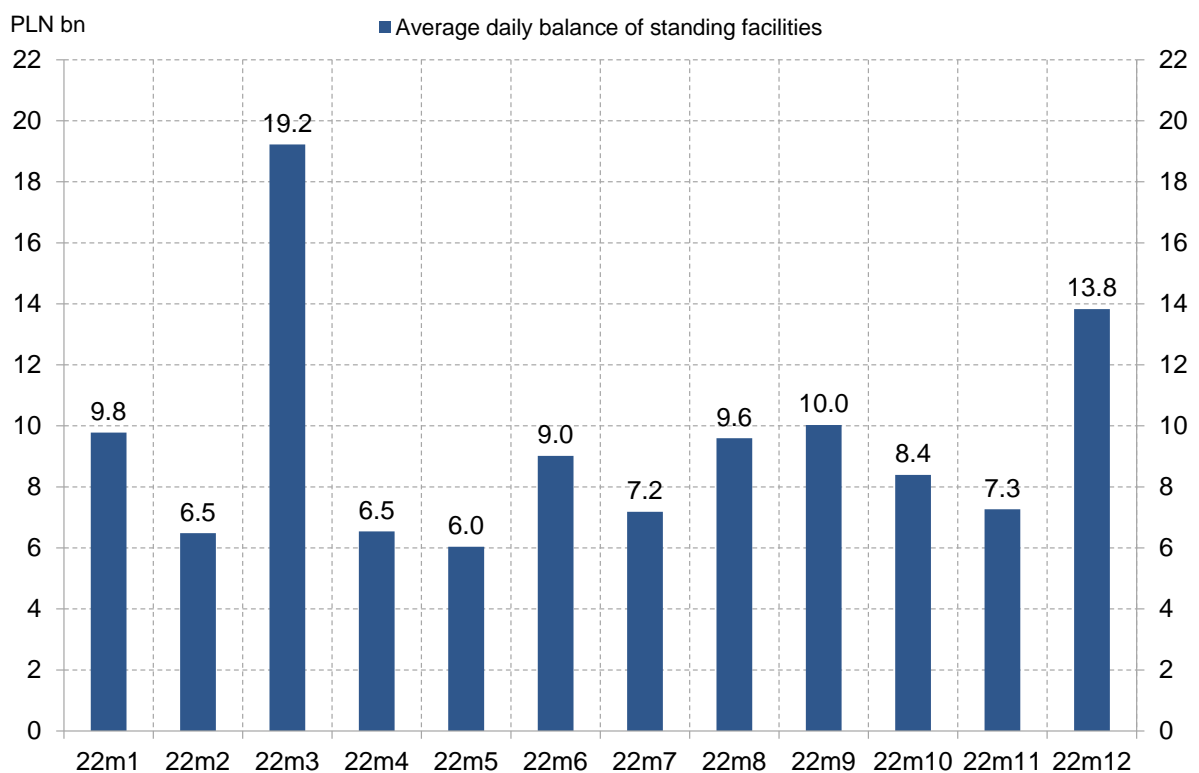
### Standing facilities

In 2022, the lombard credit offered by NBP enabled banks to obtain funds from the central bank on each operating day on an overnight basis. This credit was collateralised with assets accepted by NBP (among others, government securities, securities issued by NBP, government-guaranteed bonds, municipal bonds and high credit quality corporate bonds, as well as covered bonds).

In turn, the deposit facility enabled banks in 2022 to deposit on each operating day their surplus funds on an overnight basis with the central bank.

The interest rate on the above-mentioned instruments constituted, respectively, the upper and lower limit for market rates set for overnight term, reducing the scale of their potential fluctuations.

**Figure 16.** Average daily balance of standing facilities in individual required reserve maintenance periods in 2022.



Source: NBP data.

In 2022, similarly as in previous years, banks used the lombard credit only occasionally. The total amount of the lombard credit provided to banks by NBP in the period under analysis – calculated for the days when it was used – stood at PLN 62 million, against PLN 10 million in 2021. Its average daily level amounted to PLN 0.17 million against PLN 0.03 million in 2021.

In 2022, the total value of overnight deposits placed by banks with NBP (calculated as the total days of their placement) amounted to PLN 3 488 729 million and was lower by PLN 407 250 million in comparison to deposits placed in the previous year. The average daily level of such deposits in the period under analysis amounted to PLN 9 506 million against PLN 10 674 million in 2021.



### **Bill discount credit**

NBP may offer bill discount credit aimed at refinancing loans granted to entrepreneurs by banks.

In 2022, NBP did not use this instrument.

### **Foreign exchange swaps**

By using foreign exchange swaps, NBP may purchase (or sell) zloty against a foreign currency on the spot market, with its simultaneous resale (or repurchase) as part of a forward transaction on a specified date.

In 2022, NBP did not conduct any such operations as part of monetary policy implementation.

### **Foreign exchange interventions**

As part of the current monetary policy strategy, NBP may make a purchase or sale of foreign currency in the foreign exchange market for zloty.

A significant depreciation of the zloty observed in the period immediately following the beginning of the Russia's military aggression against Ukraine was not consistent with the fundamentals of the Polish economy nor with the direction of NBP's monetary policy and threatened to disturb the efficient functioning of the financial market. In these circumstances, in March 2022 NBP sold a certain amount of foreign currency in exchange for zloty.

# Appendix 1. Selected macroeconomic and financial data

Table A.1 GDP and its components in 2014-2022

	2022		2014	2015	2016	2017	2018	2019	2020	2021	2022				
	Current prices (PLN bn)	per cent of GDP									Annual growth at the previous year prices (in per cent)				
											Q1	Q2	Q3	Q4	
<b>GDP</b>	3078.3	100.0	3.8	4.4	3.0	5.1	5.9	4.4	-2.0	6.9	5.1	8.8	6.1	3.9	2.3
<b>Domestic demand</b>	3032.1	98.5	5.6	3.9	2.2	5.4	6.3	3.3	-2.7	8.5	5.1	10.8	7.2	3.1	0.6
<b>Consumption</b>	2297.4	74.6	3.4	3.5	3.3	5.4	4.4	4.1	-1.5	5.8	2.0	5.4	5.3	0.9	-3.3
Household consumption	1720.9	55.9	3.4	3.8	3.6	6.3	4.4	3.5	-3.6	6.2	3.3	6.8	6.7	1.1	-1.1
<b>Capital formation</b>	734.7	23.9	14.5	5.6	-1.7	5.6	13.8	0.5	-7.5	19.4	15.9	36.9	14.6	10.5	10.4
Gross fixed capital formation	513.2	16.7	11.7	6.9	-7.6	1.6	12.6	6.2	-2.3	1.2	5.0	5.4	7.1	2.5	5.4
<b>Exports</b>	1914.8	62.2	5.5	6.6	9.0	9.0	6.8	5.3	-1.1	12.3	6.2	5.6	6.4	9.0	3.9
<b>Imports</b>	1868.6	60.7	9.4	5.6	7.7	9.9	7.5	3.2	-2.4	16.1	6.2	8.7	8.2	7.7	0.7
<b>Value added</b>	2736.1	88.9	3.7	4.5	2.8	5.0	5.9	4.3	-2.0	6.6	5.0	8.6	5.9	3.6	2.7
<b>Industry</b>	755.0	24.5	7.0	4.2	4.5	1.9	5.0	4.7	-3.5	0.0	7.5	13.7	8.1	5.8	3.5
<b>Construction</b>	166.0	5.4	8.7	11.6	-5.0	-1.2	8.5	-0.8	-8.0	8.7	4.3	16.9	4.8	0.5	0.9
<b>Market services and agriculture</b>	1416.3	46.0	1.6	5.0	3.8	8.2	6.1	5.4	-2.0	9.0	4.9	7.6	6.1	3.6	2.7
<b>Non-market services</b>	398.8	13.0	3.1	-0.4	1.0	2.8	5.6	2.7	3.5	8.3	2.0	2.1	2.3	2.0	1.8
<b>Contribution to annual GDP growth at the previous year prices (in percentage points)</b>															
<b>Domestic demand</b>	-	-	5.4	3.9	2.2	5.2	6.1	3.2	-2.6	8.0	4.9	10.2	6.8	3.1	0.6
<b>Consumption</b>	-	-	2.7	2.7	2.6	4.1	3.3	3.1	-1.1	4.4	1.4	4.2	4.0	0.7	-2.3
Household consumption	-	-	2.0	2.3	2.1	3.6	2.5	2.0	-2.0	3.4	1.8	4.0	3.8	0.6	-0.5
<b>Capital formation</b>	-	-	2.8	1.2	-0.4	1.1	2.7	0.1	-1.5	3.6	3.5	6.0	2.8	2.4	2.9
Gross fixed capital formation	-	-	2.2	1.4	-1.6	0.3	2.2	1.2	-0.4	0.2	0.9	0.7	1.1	0.4	1.2
<b>Net exports</b>	-	-	-1.6	0.5	0.8	-0.1	-0.2	1.2	0.6	-1.1	0.2	-1.4	-0.7	0.8	1.7
<b>Contribution to annual value added growth at the previous year prices (in percentage points)</b>															
<b>Industry</b>	-	-	1.7	1.1	1.2	0.5	1.3	1.2	-0.9	0.0	1.9	3.7	1.9	1.3	1.1
<b>Construction</b>	-	-	0.7	0.9	-0.4	-0.1	0.6	-0.1	-0.6	0.6	0.3	0.7	0.4	0.0	0.1
<b>Market services and agriculture</b>	-	-	0.9	2.5	1.9	4.2	3.2	2.8	-1.1	4.7	2.5	3.8	3.3	1.9	1.3
<b>Non-market services</b>	-	-	0.5	-0.1	0.2	0.4	0.8	0.4	0.5	1.3	0.3	0.4	0.4	0.3	0.3

Source: Statistics Poland data, NBP calculations.

Market services and agriculture cover categories A, G-N and R-U of PKD classification (Polish equivalent of NACE): agriculture, trade, transportation, accommodation and catering, information and communication, financial and insurance activity, real estate activities, professional, scientific and technical activities, administrative and support service activities, arts, entertainment and recreation, other service activities, activities of households, and activities of extraterritorial organisations and bodies.

Non-market services comprise categories O, P and Q of PKD classification: public administration and defence, compulsory social security, education, human health and social work activities. Contributions to GDP growth and value added growth may not add up to overall GDP growth and value added growth due to rounding.

**Table A.2** Annual growth in consumer goods and services prices and the contribution of the main price categories to CPI

	Weights in 2022, per cent	Change (y/y, per cent)												2022 average	2021 average
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII		
<b>CPI</b>	<b>100.0</b>	<b>9.4</b>	<b>8.5</b>	<b>11.0</b>	<b>12.4</b>	<b>13.9</b>	<b>15.5</b>	<b>15.6</b>	<b>16.1</b>	<b>17.2</b>	<b>17.9</b>	<b>17.5</b>	<b>16.6</b>	<b>14.4</b>	<b>5.1</b>
<b>Core inflation</b>	<b>56.3</b>	<b>6.1</b>	<b>6.7</b>	<b>6.9</b>	<b>7.7</b>	<b>8.5</b>	<b>9.1</b>	<b>9.3</b>	<b>9.9</b>	<b>10.7</b>	<b>11.0</b>	<b>11.4</b>	<b>11.5</b>	<b>9.1</b>	<b>4.1</b>
<b>Goods</b>	31.8	4.4	4.8	5.3	5.9	6.7	7.4	7.4	8.5	9.3	9.5	10.0	10.1	7.5	2.1
<b>Services</b>	24.5	8.3	9.1	9.1	10.1	10.8	11.5	11.7	11.8	12.5	13.0	13.2	13.4	11.2	6.8
<b>Food and non-alcoholic beverages</b>	<b>26.6</b>	<b>9.3</b>	<b>7.6</b>	<b>9.2</b>	<b>12.7</b>	<b>13.5</b>	<b>14.2</b>	<b>15.3</b>	<b>17.5</b>	<b>19.3</b>	<b>22.0</b>	<b>22.3</b>	<b>21.5</b>	<b>15.4</b>	<b>3.2</b>
<b>Processed</b>	14.4	9.7	8.5	9.0	11.5	13.6	15.2	17.0	19.7	21.0	22.6	23.2	22.8	16.3	4.1
<b>Unprocessed</b>	12.1	8.7	6.5	9.5	14.0	13.3	12.9	13.3	14.8	17.3	21.3	21.2	19.9	14.4	2.1
<b>Energy</b>	<b>17.1</b>	<b>21.2</b>	<b>16.3</b>	<b>27.4</b>	<b>27.5</b>	<b>32.8</b>	<b>39.1</b>	<b>36.9</b>	<b>34.3</b>	<b>35.0</b>	<b>33.8</b>	<b>29.3</b>	<b>24.9</b>	<b>29.9</b>	<b>12.1</b>
<b>Energy carriers</b>	11.2	20.0	18.8	24.3	27.3	31.4	35.1	37.0	40.3	44.3	41.6	36.8	31.1	32.5	7.1
Electricity	4.5	3.2	5.0	5.0	5.0	5.0	5.1	5.1	5.1	5.1	5.1	5.1	5.1	4.9	9.9
Gas	2.3	51.3	39.9	49.2	49.2	46.4	46.2	44.9	36.6	35.6	27.9	26.4	24.8	39.3	4.1
Liquid and solid fuels	2.0	41.6	41.2	61.3	76.5	101.5	122.0	131.2	156.9	172.2	147.0	109.1	83.1	104.1	10.2
Heat energy	2.4	7.3	8.1	9.1	10.8	11.9	12.3	14.3	16.5	21.0	27.0	29.6	29.6	16.5	2.7
<b>Fuels</b>	5.9	23.8	11.1	33.5	27.8	35.4	46.7	36.8	23.3	18.3	19.5	15.5	13.5	25.2	22.1
<b>According to COICOP groups</b>															
<b>Food and non-alcoholic beverages</b>	26.6	9.3	7.6	9.2	12.7	13.5	14.2	15.3	17.5	19.3	22.0	22.3	21.5	15.4	3.2
<b>Alcoholic beverages and tobacco products</b>	6.3	3.7	4.6	5.3	5.9	6.5	7.0	7.7	8.3	9.0	9.9	10.3	10.4	7.4	2.1
<b>Clothing and footwear</b>	4.5	4.2	3.5	3.3	3.7	4.3	4.4	4.7	5.2	7.0	7.0	6.8	7.6	5.2	-0.2
<b>Home maintenance and energy carriers</b>	19.3	14.9	14.3	17.7	19.5	22.0	24.2	25.3	27.4	29.9	28.7	26.0	22.6	22.8	7.4
<b>Home equipment and household maintenance</b>	5.7	6.7	7.3	7.8	8.6	9.7	10.9	10.2	12.2	13.0	12.4	13.6	13.8	10.5	3.4
<b>Health</b>	5.7	3.7	4.6	6.0	6.5	7.2	7.5	7.2	7.4	7.8	8.5	9.1	9.3	7.1	3.3
<b>Transportation</b>	9.5	17.2	9.9	24.1	21.1	25.8	33.4	27.7	19.5	16.4	17.3	14.4	13.3	19.9	14.4
<b>Telecommunication</b>	4.9	4.0	5.4	3.0	2.6	3.6	4.6	5.1	4.3	2.9	3.3	5.0	4.9	4.1	5.5
<b>Recreation and culture</b>	6.1	7.1	8.6	7.4	9.3	10.3	11.5	11.3	12.6	13.9	14.8	14.2	14.7	11.3	5.1
<b>Education</b>	1.2	5.2	5.6	6.0	6.3	6.6	6.7	6.8	6.9	12.5	13.5	13.6	13.8	8.7	5.0
<b>Restaurants and hotels</b>	4.8	10.3	11.5	12.7	14.1	15.7	15.9	16.4	16.7	17.8	18.5	18.6	18.7	15.6	6.1
<b>Other goods and services</b>	5.4	5.7	5.3	6.2	7.9	8.5	8.9	8.8	10.6	11.9	11.9	12.8	12.2	9.3	2.2
<b>Contribution to CPI growth (in percentage points)</b>															
	Weights in 2022, per cent	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	2022 average	2021 average
<b>CPI</b>	<b>100.0</b>	<b>9.4</b>	<b>8.5</b>	<b>11.0</b>	<b>12.4</b>	<b>13.9</b>	<b>15.5</b>	<b>15.6</b>	<b>16.1</b>	<b>17.2</b>	<b>17.9</b>	<b>17.5</b>	<b>16.6</b>	<b>14.4</b>	<b>5.1</b>
<b>Core inflation</b>	<b>56.3</b>	<b>3.5</b>	<b>3.8</b>	<b>3.9</b>	<b>4.4</b>	<b>4.8</b>	<b>5.2</b>	<b>5.2</b>	<b>5.6</b>	<b>6.0</b>	<b>6.2</b>	<b>6.3</b>	<b>6.4</b>	<b>5.1</b>	<b>2.3</b>
<b>Goods</b>	31.8	1.4	1.6	1.7	1.9	2.2	2.4	2.4	2.7	2.9	3.0	3.1	3.2	2.4	0.7
<b>Services</b>	24.5	2.0	2.2	2.2	2.5	2.6	2.8	2.9	2.9	3.1	3.2	3.2	3.2	2.7	1.6
<b>Food and non-alcoholic beverages</b>	<b>26.6</b>	<b>2.5</b>	<b>2.0</b>	<b>2.5</b>	<b>3.4</b>	<b>3.6</b>	<b>3.8</b>	<b>4.1</b>	<b>4.6</b>	<b>5.1</b>	<b>5.8</b>	<b>5.9</b>	<b>5.7</b>	<b>4.1</b>	<b>0.9</b>
<b>Processed</b>	14.4	1.4	1.2	1.3	1.7	2.0	2.2	2.5	2.8	3.0	3.3	3.3	3.3	2.3	0.6
<b>Unprocessed</b>	12.1	1.1	0.8	1.2	1.7	1.7	1.6	1.6	1.8	2.1	2.5	2.5	2.4	1.8	0.3
<b>Energy</b>	<b>17.1</b>	<b>3.5</b>	<b>2.7</b>	<b>4.6</b>	<b>4.6</b>	<b>5.5</b>	<b>6.6</b>	<b>6.3</b>	<b>5.9</b>	<b>6.1</b>	<b>6.0</b>	<b>5.3</b>	<b>4.5</b>	<b>5.1</b>	<b>1.9</b>
<b>Energy carriers</b>	11.2	2.3	2.1	2.7	3.0	3.5	3.9	4.1	4.5	4.9	4.7	4.3	3.6	3.6	0.7
Electricity	4.5	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
Gas	2.3	1.1	0.9	1.1	1.1	1.0	1.0	1.0	0.9	0.8	0.7	0.6	0.6	0.9	0.1
Liquid and solid fuels	2.0	0.8	0.8	1.2	1.5	1.9	2.3	2.5	3.0	3.4	3.2	2.7	2.1	2.1	0.1
Heat energy	2.4	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.7	0.7	0.4	0.1
<b>Fuels</b>	5.9	1.2	0.6	1.9	1.6	2.0	2.7	2.2	1.4	1.1	1.2	1.0	0.9	1.5	1.2
<b>According to COICOP groups</b>															
<b>Food and non-alcoholic beverages</b>	26.6	2.5	2.0	2.5	3.4	3.6	3.8	4.1	4.6	5.1	5.8	5.9	5.7	4.1	0.9
<b>Alcoholic beverages and tobacco products</b>	6.3	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.1
<b>Clothing and footwear</b>	4.5	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.0
<b>Home maintenance and energy carriers</b>	19.3	2.9	2.8	3.4	3.7	4.2	4.6	4.8	5.3	5.8	5.6	5.1	4.5	4.4	1.4
<b>Home equipment and household maintenance</b>	5.7	0.4	0.4	0.4	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.6	0.2
<b>Health</b>	5.7	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.2
<b>Transportation</b>	9.5	1.5	0.9	2.2	2.0	2.4	3.1	2.7	1.9	1.6	1.7	1.4	1.3	1.9	1.3
<b>Telecommunication</b>	4.9	0.2	0.3	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3
<b>Recreation and culture</b>	6.1	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.7	0.3
<b>Education</b>	1.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1
<b>Restaurants and hotels</b>	4.8	0.5	0.5	0.6	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.7	0.3
<b>Other goods and services</b>	5.4	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.5	0.1

Source: Statistics Poland data, NBP calculations.

The core inflation quoted in the table denotes CPI inflation excluding prices of food and energy.

**Table A.3** Balance of payments (PLN million) in 2014-2022

	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Current account</b>	-48 898	-22 796	-18 603	-22 366	-41 151	-5 447	57 451	-38 016	-91 330
Balance of trade in goods	-33 101	-8 766	-5 812	-20 464	-47 990	-18 733	31 444	-35 158	-113 656
Balance of services	40 052	46 177	60 792	76 745	91 420	103 444	101 991	122 324	171 090
Balance of primary income	-64 861	-67 310	-71 884	-84 041	-89 638	-95 598	-88 791	-123 432	-139 034
Balance of secondary income	9 012	7 103	-1 699	5394	5 057	5 440	12 807	-1 750	-9 730
<b>Capital account</b>	31 857	47 758	18 338	20 701	33 956	35 292	32 711	18 338	9 335
<b>Financial account</b>	-26 897	8 610	14 216	-9 509	-1 455	22 707	80 099	-17 475	-74 362
Direct investment balance	-43 111	-40 303	-14 092	-29 796	-60 293	-46 818	-55 076	-106 868	-121 318
Portfolio investment balance	6557	16 752	-14 247	-17 162	15 998	46 508	29 424	43 599	-12 890
Other investment balance	7 771	32 709	-47 479	72 257	21 038	-11 177	37 794	-12 986	-1 733
Derivative financial instruments	-54	-3664	766	-4256	-4 760	-5 364	-4 253	-13 713	373
Official reserve assets	1 940	3 116	89 268	-30 552	26 562	39 558	72 210	72 493	61 206
<b>Balance of errors and omissions</b>	-9 856	-16 352	14 481	-7 844	5 740	-7 138	-10 063	2 203	7 633

Source: NBP data.

**Table A.4** Selected external stability indicators in 2014-2022

	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Current account balance/GDP (per cent)</b>	-2.9	-1.3	-1.0	-1.1	-1.9	-0.2	2.5	-1.4	-3.0
<b>Current and capital account balance/GDP (per cent)</b>	-1.0	1.4	0.0	-0.1	-0.3	1.3	3.9	-0.7	-2.7
<b>Balance of trade in goods and services/GDP (per cent)</b>	0.4	2.1	3.0	2.8	2.0	3.7	5.7	3.3	1.9
<b>Official reserve assets in terms of monthly imports of goods and services</b>	5.4	5.4	6.5	4.8	4.9	5.2	6.3	5.7	4.7
<b>Gross foreign debt/GDP (per cent)</b>	73.6	72.0	76.7	67.3	64.2	58.9	60.7	56.4	52.8
<b>Net international investment position/GDP (per cent)</b>	-68.7	-60.6	-66.2	-60.3	-54.7	-48.8	-43.9	-39.4	-33.8

Source: NBP and Statistics Poland data, NBP calculations.

**Table A.5** M3 (stock at the end of each year, PLN million)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>M3</b>	1 059 015	1 154 993	1 265 662	1 324 369	1 446 093	1 565 575	1 822 728	1 984 816	2 091 315
<b>Repos</b>	10 350	7 267	6 239	6 478	11 240	6 809	2 836	5 821	4 920
<b>Debt securities issued with maturity up to 2 years</b>	4 112	2 467	3 211	5 043	6 620	6 117	5 143	4 498	8 178
<b>Money market fund shares</b>	0	0	0	0	0	0	0	0	0
<b>M2</b>	1 044 553	1 145 259	1 256 212	1 312 847	1 428 233	1 552 648	1 814 749	1 974 497	2 078 217
<b>Deposits and other liabilities with agreed maturity up to 2 years</b>	438 270	453 134	440 908	406 473	415 880	397 776	283 035	249 710	493 334
Households	290 770	304 874	302 917	279 207	282 755	277 564	190 210	147 790	302 447
Other financial corporations	33 350	30 516	23 244	22 190	24 489	26 225	19 600	18 283	30 796
Non-financial corporations	101 639	103 365	99 234	88 269	87 586	82 830	65 214	74 747	138 263
Non-profit institutions serving households	6 800	7 022	7 251	7 515	7 779	7 373	3 886	3 178	7 321
Local government	4 526	5 633	5 887	6 046	4 562	3 244	3 272	4 332	9 190
Social security funds	1 184	1 724	2 375	3 245	8 710	540	853	1 380	5 317
<b>M1</b>	606 283	692 124	815 304	906 375	1 012 353	1 154 872	1 531 714	1 724 787	1 584 882
<b>Currency in circulation (excluding MFIs' vault cash)</b>	130 030	149 716	174 401	184 486	203 212	224 073	306 809	340 406	353 700
<b>Overnight deposits and other liabilities</b>	476 253	542 409	640 903	721 888	809 141	930 799	1 224 904	1 384 380	1 231 182
Households	300 786	341 115	402 001	453 227	523 307	603 824	786 844	898 211	776 518
Other financial corporations	18 574	20 302	25 899	31 589	32 800	26 065	31 196	37 769	33 554
Non-financial corporations	124 239	145 975	169 753	187 139	199 722	233 409	311 223	340 367	325 015
Non-profit institutions serving households	11 305	12 518	14 912	16 426	18 290	19 471	25 717	28 311	28 174
Local government	19 494	18 868	25 255	26 744	27 722	33 936	50 999	67 733	57 903
Social security funds	1 853	3 630	3 084	6 764	7 299	14 093	18 926	11 990	10 018

Source: NBP data.

MFIs – Monetary Financial Institutions.

**Table A.6** M3 counterparts (stock at the end of each year, PLN million)

	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>External assets, net</b>	172 947	187 103	234 209	232 528	290 278	344 825	428 689	525 127	639 029
<b>External assets</b>	437 358	451 322	572 727	483 804	544 419	590 795	700 775	816 705	971 149
<b>External liabilities</b>	264 411	264 219	338 519	251 276	254 141	245 969	272 087	291 579	332 120
<b>Credit to other residents</b>	1 017 017	1 089 011	1 137 243	1 175 789	1 264 010	1 324 871	1 385 186	1 452 454	1 470 373
<b>Loans and other claims</b>	963 655	1 029 145	1 076 440	1 113 993	1 197 892	1 259 552	1 262 829	1 327 636	1 346 078
Households	593 273	632 523	665 062	676 362	723 233	766 334	789 087	826 552	794 284
Other financial corporations	53 346	58 344	58 546	65 782	74 182	83 732	81 788	96 150	113 397
Non-financial corporations	275 774	297 950	314 533	333 362	358 589	366 114	348 096	362 898	398 067
Non-profit institutions serving households	5 683	6 068	6 485	6 946	7 296	7 621	7 995	8 359	8 496
Local government	35 579	34 260	31 814	31 541	34 592	35 750	35 863	33 676	31 835
Social security funds	0	0	0	0	0	0	0	0	0
<b>Debt securities</b>	41 985	47 229	48 020	47 502	47 610	46 910	103 687	108 951	110 138
Other financial corporations	1 713	2 359	3 959	3 496	3 500	3 164	61 781	66 655	65 692
Non-financial corporations	22 588	26 100	25 423	24 941	22 584	19 637	16 529	17 090	16 432
Local government	17 684	18 770	18 638	19 064	21 526	24 109	25 377	25 206	28 014
<b>Equity and non-MMF investment fund shares or units</b>	11 377	12 637	12 783	14 294	18 508	18 409	18 669	15 867	14 157
Other financial corporations	8 971	10 381	10 601	12 070	15 676	15 882	16 252	13 702	12 307
Non-financial corporations	2 406	2 256	2 182	2 222	2 831	2 526	2 416	2 158	1 849
<b>Credit to central government, net</b>	168 872	201 343	253 371	268 824	275 697	310 283	411 635	388 064	351 593
<b>Credit to central government</b>	224 409	239 787	311 159	321 398	346 352	383 746	533 733	536 411	514 056
Loans	701	1 142	961	1 011	1 043	1 127	1 287	1 614	1 625
Debt securities	180 804	193 333	259 586	267 216	293 297	331 138	475 229	475 925	438 982
<b>Deposits of central government</b>	55 536	38 444	57 788	52 574	70 655	73 464	122 099	148 347	162 464
<b>Longer-term financial liabilities</b>	336 409	359 605	389 984	374 963	407 306	438 021	505 957	501 988	488 218
<b>Deposits and other liabilities with agreed maturity over 2 years</b>	20 512	22 001	25 189	25 784	25 676	28 812	28 956	26 039	26 771
Households	13 756	16 552	19 839	21 344	21 836	25 362	25 549	23 334	24 605
Other financial corporations	5 851	4 624	4 452	3 483	2 939	2 541	2 312	1 243	630
Non-financial corporations	813	733	777	789	772	784	948	1 311	1 376
Non-profit institutions serving households	64	68	102	144	100	100	118	126	137
Local government	27	25	19	24	29	26	28	25	23
Social security funds	0	0	0	0	0	0	0	0	0
<b>Debt securities issued with maturity over 2 years</b>	40 422	43 879	53 782	69 762	72 267	78 530	106 207	117 215	124 315
<b>Capital and reserves</b>	275 475	293 725	311 013	279 417	309 363	330 679	370 794	358 733	337 131
<b>Fixed assets (excluding fixed financial assets)</b>	50 382	51 475	52 610	53 221	54 777	61 958	65 391	65 037	66 950
<b>Other items, net</b>	-13 794	-14 334	-21 788	-31 031	-31 364	-38 341	37 785	56 121	51 587

Source: NBP data.

## Appendix 2. Voting records of the Monetary Policy Council members on motions and resolutions

Voting records of the Monetary Policy Council members on motions and resolutions in 2022 are presented below.

■ Date: 4 January 2022

**Subject matter of motion or resolution:**

Resolution no. 1/2022 amending the resolution on the regulations of the Monetary Policy Council.

**Voting of the MPC members:**

**For:** A. Glapiński

G.M. Ancyparowicz

C. Kochalski

J.J. Kropiwnicki

E.M. Łon

R. Sura

J. Żyżyński

**Against:** E. Gatnar

Ł.J. Hardt

K. Zubelewicz

■ Date: 4 January 2022

**Subject matter of motion or resolution:**

Motion to raise the reference rate by 0.50 p.p. to 2.25% and to raise in parallel the remaining NBP interest rates to the following levels:

- lombard rate 2.75%,
- deposit rate 1.75%,
- rediscount rate 2.30%,
- discount rate 2.35%.

**MPC decision:**

The motion was passed.

**Voting of the MPC members:**

**For:** A. Glapiński

G.M. Ancyparowicz

E. Gatnar

Ł.J. Hardt

C. Kochalski

J.J. Kropiwnicki

R. Sura

K. Zubelewicz

**Against:** E.M. Łon

J. Żyżyński

■ Date: 4 January 2022

**Subject matter of motion or resolution:**

Resolution no. 2/2022 on the reference rate, refinancing credit rate, fixed-term deposit rate, rediscount rate and discount rate at Narodowy Bank Polski.

**Voting of the MPC members:**

<b>For:</b>	A. Glapiński	<b>Against:</b>	E.M. Łon
	G.M. Ancyparowicz		J. Żyżyński
	E. Gatnar		
	Ł.J. Hardt		
	C. Kochalski		
	J.J. Kropiwnicki		
	R. Sura		
	K. Zubelewicz		

■ Date: 4 January 2022

**Subject matter of motion or resolution:**

Motion to raise the basic required reserve ratio to 3.50%.

**MPC decision:**

The motion did not receive majority vote.

**Voting of the MPC members:**

<b>For:</b>	E. Gatnar	<b>Against:</b>	A. Glapiński
	Ł.J. Hardt		G.M. Ancyparowicz
	K. Zubelewicz		C. Kochalski
			J.J. Kropiwnicki
			E.M. Łon
			R. Sura
			J. Żyżyński

■ Date: 4 January 2022

**Subject matter of motion or resolution:**

Motion to set the interest rate on the required reserve funds at the level of the NBP deposit rate.

**MPC decision:**

The motion did not receive majority vote.

**Voting of the MPC members:**

**For:** E. Gatnar

Ł.J. Hardt

J.J. Kropiwnicki

K. Zubelewicz

**Against:** A. Glapiński

G.M. Ancyparowicz

C. Kochalski

E.M. Łon

R. Sura

J. Żyżyński

■ Date: 8 February 2022

**Subject matter of motion or resolution:**

Motion to raise the reference rate by 0.50 p.p. to 2.75% and to raise in parallel the remaining NBP interest rates to the following levels:

- lombard rate 3.25%,
- deposit rate 2.25%,
- rediscount rate 2.80%,
- discount rate 2.85%.

**MPC decision:**

The motion was passed.

**Voting of the MPC members:**

**For:** A. Glapiński

G.M. Ancyparowicz

Ł.J. Hardt

C. Kochalski

L. Kotecki

P. Litwiniuk

R. Sura

K. Zubelewicz

J. Żyżyński

**Against:** E.M. Łon



■ Date: 8 February 2022

**Subject matter of motion or resolution:**

Resolution no. 3/2022 on the reference rate, refinancing credit rate, fixed-term deposit rate, rediscount rate and discount rate at Narodowy Bank Polski.

**Voting of the MPC members:**

<b>For:</b>	A. Glapiński	<b>Against:</b>	E.M. Łon
	G.M. Ancyparowicz		
	Ł.J. Hardt		
	C. Kochalski		
	L. Kotecki		
	P. Litwiniuk		
	R. Sura		
	K. Zubelewicz		
	J. Żyżyński		

■ Date: 8 February 2022

**Subject matter of motion or resolution:**

Motion to raise the basic required reserve ratio to 3.50%.

**MPC decision:**

The motion was passed.

**Voting of the MPC members:**

<b>For:</b>	A. Glapiński	<b>Against:</b>	E.M. Łon
	G.M. Ancyparowicz		
	Ł.J. Hardt		
	C. Kochalski		
	L. Kotecki		
	P. Litwiniuk		
	R. Sura		
	K. Zubelewicz		
	J. Żyżyński		

■ Date: 8 February 2022

**Subject matter of motion or resolution:**

Resolution no. 4/2022 amending the resolution on the required reserve ratios for banks, credit unions and the National Association of Credit Unions as well as the level of interest rate on the required reserve.

**Voting of the MPC members:**

<b>For:</b>	A. Glapiński G.M. Ancyparowicz Ł.J. Hardt C. Kochalski L. Kotecki P. Litwiniuk R. Sura K. Zubelewicz J. Żyżyński	<b>Against:</b>	E.M. Łon
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■ Date: 8 March 2022

**Subject matter of motion or resolution:**

Motion to raise the reference rate by 0.75 p.p. to 3.50% and to raise in parallel the remaining NBP interest rates to the following levels:

- lombard rate 4.00%,
- deposit rate 3.00%,
- rediscount rate 3.55%,
- discount rate 3.60%.

**MPC decision:**

The motion was passed.

**Voting of the MPC members:**

<b>For:</b>	A. Glapiński I.K. Dąbrowski W.S. Janczyk C. Kochalski L. Kotecki P. Litwiniuk R. Sura H.J. Wnorowski J. Żyżyński	<b>Against:</b>	No-one
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■ Date: 8 March 2022

**Subject matter of motion or resolution:**

Resolution no. 5/2022 on the reference rate, refinancing credit rate, fixed-term deposit rate, rediscount rate and discount rate at Narodowy Bank Polski.

**Voting of the MPC members:**

<b>For:</b>	A. Glapiński	<b>Against:</b>	No-one
	I.K. Dąbrowski		
	W.S. Janczyk		
	C. Kochalski		
	L. Kotecki		
	P. Litwiniuk		
	R. Sura		
	H.J. Wnorowski		
	J. Żyżyński		

■ Date: 6 April 2022

**Subject matter of motion or resolution:**

Resolution no. 6/2022 on approving the annual financial report of Narodowy Bank Polski prepared as of 31 December 2021.

**Voting of the MPC members:**

<b>For:</b>	A. Glapiński	<b>Against:</b>	No-one
	I.K. Dąbrowski		
	W.S. Janczyk		
	C. Kochalski		
	L. Kotecki		
	P. Litwiniuk		
	R. Sura		
	H.J. Wnorowski		

■ Date: 6 April 2022

**Subject matter of motion or resolution:**

Motion to raise the reference rate by 1.00 p.p. to 4.50% and to raise in parallel the remaining NBP interest rates to the following levels:

- lombard rate 5.00%,
- deposit rate 4.00%,
- rediscount rate 4.55%,
- discount rate 4.60%.

**MPC decision:**

The motion was passed.

**Voting of the MPC members:**

<b>For:</b> A. Glapiński I.K. Dąbrowski W.S. Janczyk C. Kochalski L. Kotecki R. Sura H.J. Wnorowski	<b>Against:</b> P. Litwiniuk
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■ Date: 6 April 2022

**Subject matter of motion or resolution:**

Resolution no. 7/2022 on the reference rate, refinancing credit rate, fixed-term deposit rate, rediscount rate and discount rate at Narodowy Bank Polski.

**Voting of the MPC members:**

<b>For:</b> A. Glapiński I.K. Dąbrowski W.S. Janczyk C. Kochalski L. Kotecki R. Sura H.J. Wnorowski	<b>Against:</b> P. Litwiniuk
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■ Date: 5 May 2022

**Subject matter of motion or resolution:**

Motion to raise the NBP interest rates by 1.00 p.p.

**MPC decision:**

The motion did not receive majority vote.

**Voting of the MPC members:**

**For:** L. Kotecki

**Against:** A. Glapiński  
I.K. Dąbrowski  
W.S. Janczyk  
C. Kochalski  
P. Litwiniuk  
R. Sura  
H.J. Wnorowski

■ Date: 5 May 2022

**Subject matter of motion or resolution:**

Motion to raise the reference rate by 0.75 p.p. to 5.25% and to raise in parallel the remaining NBP interest rates to the following levels:

- lombard rate 5.75%,
- deposit rate 4.75%,
- rediscount rate 5.30%,
- discount rate 5.35%.

**MPC decision:**

The motion was passed.

**Voting of the MPC members:**

**For:** A. Glapiński  
I.K. Dąbrowski  
W.S. Janczyk  
C. Kochalski  
R. Sura  
H.J. Wnorowski

**Against:** L. Kotecki  
P. Litwiniuk

■ Date: 5 May 2022

**Subject matter of motion or resolution:**

Resolution no. 8/2022 on the reference rate, refinancing credit rate, fixed-term deposit rate, rediscount rate and discount rate at Narodowy Bank Polski.

**Voting of the MPC members:**

<b>For:</b>	A. Glapiński	<b>Against:</b>	L. Kotecki
	I.K. Dąbrowski		P. Litwiniuk
	W.S. Janczyk		
	C. Kochalski		
	R. Sura		
	H.J. Wnorowski		

■ Date: 5 May 2022

**Subject matter of motion or resolution:**

Resolution no. 9/2022 on approving the Report on monetary policy in 2021.

**Voting of the MPC members:**

<b>For:</b>	A. Glapiński	<b>Against:</b>	L. Kotecki
	I.K. Dąbrowski		P. Litwiniuk
	W.S. Janczyk		
	C. Kochalski		
	R. Sura		
	H.J. Wnorowski		

■ Date: 5 May 2022

**Subject matter of motion or resolution:**

Resolution no. 10/2022 on evaluation of the activities of the NBP Management Board as regards the implementation of monetary policy guidelines for 2021.

**Voting of the MPC members:**

**For:** A. Glapiński  
I.K. Dąbrowski  
W.S. Janczyk  
C. Kochalski  
R. Sura  
H.J. Wnorowski

**Against:** L. Kotecki  
P. Litwiniuk

■ Date: 5 May 2022

**Subject matter of motion or resolution:**

Resolution no. 11/2022 on approving the report on the operations of Narodowy Bank Polski in 2021.

**Voting of the MPC members:**

**For:** A. Glapiński  
I.K. Dąbrowski  
W.S. Janczyk  
C. Kochalski  
P. Litwiniuk  
R. Sura  
H.J. Wnorowski

**Against:** L. Kotecki

■ Date: 8 June 2022

**Subject matter of motion or resolution:**

Motion to raise the NBP interest rates by 1.00 p.p.

**MPC decision:**

The motion did not receive majority vote.

**Voting of the MPC members:**

**For:** L. Kotecki

**Against:** A. Glapiński  
I.K. Dąbrowski  
W.S. Janczyk  
C. Kochalski  
P. Litwiniuk  
R. Sura  
H.J. Wnorowski

■ Date: 8 June 2022

**Subject matter of motion or resolution:**

Motion to raise the reference rate by 0.75 p.p. to 6.00% and to raise in parallel the remaining NBP interest rates to the following levels:

- lombard rate 6.50%,
- deposit rate 5.50%,
- rediscount rate 6.05%,
- discount rate 6.10%.

**MPC decision:**

The motion was passed.

**Voting of the MPC members:**

**For:** A. Glapiński  
I.K. Dąbrowski  
W.S. Janczyk  
C. Kochalski  
P. Litwiniuk  
R. Sura  
H.J. Wnorowski

**Against:** L. Kotecki



■ Date: 8 June 2022

**Subject matter of motion or resolution:**

Resolution no. 12/2022 on the reference rate, refinancing credit rate, fixed-term deposit rate, rediscount rate and discount rate at Narodowy Bank Polski.

**Voting of the MPC members:**

<b>For:</b>	A. Glapiński I.K. Dąbrowski W.S. Janczyk C. Kochalski P. Litwiniuk R. Sura H.J. Wnorowski	<b>Against:</b>	L. Kotecki
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■ Date: 7 July 2022

**Subject matter of motion or resolution:**

Motion to raise the reference rate by 0.50 p.p. to 6.50% and to raise in parallel the remaining NBP interest rates to the following levels:

- lombard rate 7.00%,
- deposit rate 6.00%,
- rediscount rate 6.55%,
- discount rate 6.60%.

**MPC decision:**

The motion was passed.

**Voting of the MPC members:**

<b>For:</b>	A. Glapiński I.K. Dąbrowski W.S. Janczyk C. Kochalski L. Kotecki P. Litwiniuk R. Sura H.J. Wnorowski	<b>Against:</b>	No-one
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■ Date: 7 July 2022

**Subject matter of motion or resolution:**

Resolution no. 13/2022 on the reference rate, refinancing credit rate, fixed-term deposit rate, rediscount rate and discount rate at Narodowy Bank Polski.

**Voting of the MPC members:**

**For:** A. Glapiński  
I.K. Dąbrowski  
W.S. Janczyk  
C. Kochalski  
L. Kotecki  
P. Litwiniuk  
R. Sura  
H.J. Wnorowski

**Against:** No-one

■ Date: 7 September 2022

**Subject matter of motion or resolution:**

Motion to raise the NBP interest rates by 0.50 p.p.

**MPC decision:**

The motion did not receive majority vote.

**Voting of the MPC members:**

**For:** L. Kotecki  
P. Litwiniuk

**Against:** A. Glapiński  
I.K. Dąbrowski  
W.S. Janczyk  
C. Kochalski  
H.J. Wnorowski

■ Date: 7 September 2022

**Subject matter of motion or resolution:**

Motion to raise the reference rate by 0.25 p.p. to 6.75% and to raise in parallel the remaining NBP interest rates to the following levels:

- lombard rate 7.25%,
- deposit rate 6.25%,
- rediscount rate 6.80%,
- discount rate 6.85%.

**MPC decision:**

The motion was passed.

**Voting of the MPC members:**

<b>For:</b> A. Glapiński	<b>Against:</b> L. Kotecki
I.K. Dąbrowski	
W.S. Janczyk	
C. Kochalski	
P. Litwiniuk	
H.J. Wnorowski	

■ Date: 7 September 2022

**Subject matter of motion or resolution:**

Resolution no. 14/2022 on the reference rate, refinancing credit rate, fixed-term deposit rate, rediscount rate and discount rate at Narodowy Bank Polski.

**Voting of the MPC members:**

<b>For:</b> A. Glapiński	<b>Against:</b> L. Kotecki
I.K. Dąbrowski	
W.S. Janczyk	
C. Kochalski	
P. Litwiniuk	
H.J. Wnorowski	

■ Date: 7 September 2022

**Subject matter of motion or resolution:**

Resolution no. 15/2022 on adopting monetary policy guidelines for 2023.

**Voting of the MPC members:**

**For:** A. Glapiński

I.K. Dąbrowski

W.S. Janczyk

C. Kochalski

P. Litwiniuk

H.J. Wnorowski

**Against:** L. Kotecki

■ Date: 5 October 2022

**Subject matter of motion or resolution:**

Motion to raise the NBP interest rates by 1.00 p.p.

**MPC decision:**

The motion did not receive majority vote.

**Voting of the MPC members:**

**For:** J.B. Tyrowicz

**Against:** A. Glapiński

I.K. Dąbrowski

W.S. Janczyk

C. Kochalski

L. Kotecki

P. Litwiniuk

H.J. Wnorowski

■ Date: 5 October 2022

**Subject matter of motion or resolution:**

Motion to raise the NBP interest rates by 0.50 p.p.

**MPC decision:**

The motion did not receive majority vote.

**Voting of the MPC members:**

**For:** L. Kotecki  
P. Litwiniuk  
J.B. Tyrowicz

**Against:** A. Glapiński  
I.K. Dąbrowski  
W.S. Janczyk  
C. Kochalski  
H.J. Wnorowski

■ Date: 9 November 2022

**Subject matter of motion or resolution:**

Motion to raise the NBP interest rates by 1.00 p.p.

**MPC decision:**

The motion did not receive majority vote.

**Voting of the MPC members:**

**For:** J.B. Tyrowicz

**Against:** A. Glapiński  
I.K. Dąbrowski  
I. Duda  
W.S. Janczyk  
C. Kochalski  
L. Kotecki  
P. Litwiniuk  
G. Masłowska  
H.J. Wnorowski

■ Date: 9 November 2022

**Subject matter of motion or resolution:**

Motion to raise the NBP interest rates by 0.50 p.p.

**MPC decision:**

The motion did not receive majority vote.

**Voting of the MPC members:**

**For:** L. Kotecki  
P. Litwiniuk  
J.B. Tyrowicz

**Against:** A. Glapiński  
I.K. Dąbrowski  
I. Duda  
W.S. Janczyk  
C. Kochalski  
G. Masłowska  
H.J. Wnorowski

■ Date: 7 December 2022

**Subject matter of motion or resolution:**

Motion to raise the NBP interest rates by 1.00 p.p.

**MPC decision:**

The motion did not receive majority vote.

**Voting of the MPC members:**

**For:** J.B. Tyrowicz

**Against:** A. Glapiński  
I.K. Dąbrowski  
I. Duda  
W.S. Janczyk  
C. Kochalski  
L. Kotecki  
P. Litwiniuk  
G. Masłowska  
H.J. Wnorowski

■ Date: 7 December 2022

**Subject matter of motion or resolution:**

Motion to raise the NBP interest rates by 0.50 p.p.

**MPC decision:**

The motion did not receive majority vote.

**Voting of the MPC members:**

**For:** L. Kotecki  
J.B. Tyrowicz

**Against:** A. Glapiński  
I.K. Dąbrowski  
I. Duda  
W.S. Janczyk  
C. Kochalski  
P. Litwiniuk  
G. Masłowska  
H.J. Wnorowski

■ Date: 7 December 2022

**Subject matter of motion or resolution:**

Motion to raise the NBP interest rates by 0.25 p.p.

**MPC decision:**

The motion did not receive majority vote.

**Voting of the MPC members:**

**For:** P. Litwiniuk

**Against:** A. Glapiński  
I.K. Dąbrowski  
I. Duda  
W.S. Janczyk  
C. Kochalski  
L. Kotecki  
G. Masłowska  
J.B. Tyrowicz  
H.J. Wnorowski

■ Date: 7 December 2022

**Subject matter of motion or resolution:**

Resolution no. 16/2022 on approving the financial plan of NBP for 2023.

**Voting of the MPC members:**

**For:** A. Glapiński

I.K. Dąbrowski

I. Duda

W.S. Janczyk

C. Kochalski

L. Kotecki

P. Litwiniuk

G. Masłowska

H.J. Wnorowski

**Against:** J.B. Tyrowicz



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