









Monetary Environment Review 04-2024

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# Monetary conditions were neutral in Q4-2024, insufficient to cool overheated demand

Interest rates on loans and deposits exceeded neutral levels in Q4-2024 (Fig. 1), driven by rising interest rates in Russia. This factor, independent of the National Bank's monetary policy, will continue to exert influence in 2025, leading to a moderate increase in loan and deposit rates, keeping them slightly above equilibrium levels. At the same time, the National Bank's actions in monetary policy will continue to lag in responding to inflationary risks due to its lack of independence. The Belarusian ruble remained near the equilibrium level of the real effective exchange rate in Q4-2024, with a slight undervaluation (Fig. 1). Given the trade deficit in goods and services, this slight undervaluation will persist in 2025, with the ruble depreciating by 4–6% against the currency basket over the year.

The risks of deviation from the baseline forecast remain high due to the "fragility" of the overheated economy and external uncertainties. The stance of monetary policy and monetary conditions does not correspond to the scale of inflationary pressures from demand and the labor market and remains a source of risks to macroeconomic stability.



Figure 1. The nature of monetary conditions in the Belarusian economy

Source: The BEROC's calculations are based on the BEROC's Quarterly Projection Model (QPM) for Belarus.

**Note:** Monetary conditions are estimated as a combination of deviations of real interest rates on the Belarusian ruble assets and of the real effective Belarusian ruble exchange rate from their equilibrium levels. Positive monetary condition values indicate their restraining-economic-activity and disinflationary nature, and negative monetary condition values indicate their stimulating and pro-inflationary nature. We use one of the ways to assess monetary conditions, the results of which depend on the chosen type of the macroeconomic model (QPM) and its specification. We are aware of the limitations of the approach applied.

The Monetary Environment Review Bulletin presents an expert analysis of the monetary and foreign exchange rate policies and the resulting monetary conditions in the Belarusian economy. The bulletin reviews the actions under the monetary and exchange rate policies, their impact on the economy, the nature of monetary conditions, and provides their short-term forecast. The methodological basis for the analysis is the <u>BEROC's Quarterly Projection Model</u> (QPM) for the Belarusian economy.

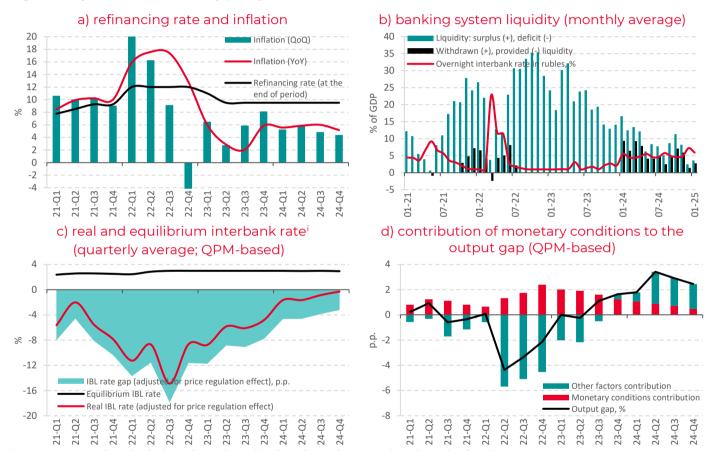
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### 1 Monetary policy: measures, direction, nature

### Monetary policy remained moderately loose in Q4-2024

The National Bank did not take active monetary policy measures in Q4-2024. The refinancing rate remained at 9.5% (Fig. 2.a), and no liquidity regulation auctions were conducted. The banking system remained in a state of excess liquidity, keeping the one-day interbank market rate (IBL) below the refinancing rate at an average of 5.6% in Q4-2024. In real terms (adjusted for expected inflation), the average IBL rate remained below the neutral level (Fig. 2.c). However, the liquidity surplus in the banking system declined towards the end of the year due to the National Bank's foreign currency sales amid seasonal demand growth. As a result, the IBL rate rose to 7.2% in December (Fig. 2.b). While still below the neutral level, **the scale of monetary stimulus continued to decline throughout 2024** (Fig. 2.c).

Figure 2. Dynamics of monetary policy indicators



**Source:** BEROC's calculations based on the data by Belstat, National Bank of Belarus, QPM BEROC. **Note:** Hereinafter, YoY is the growth rate in the last month of the quarter versus the last month of the corresponding quarter of the previous year; QoQ is the annualized growth rate in the last month of the quarter versus the last month of the previous quarter, seasonally adjusted.<sup>ii</sup>

# Monetary policy did not align with monetary targeting in Q4-2024 and remained a source of macroeconomic stability risks

Monetary conditions continued to support excessive demand in Q4-2024 due to their prolonged and inertial influence on it. However, their contribution to the output gap declined as monetary stimulus narrowed (Fig. 2.d).









# The near-neutral stance of monetary conditions did not match the scale of inflationary pressure

Without price controls, inflation would have been ≈10% YoY in December (instead of the actual 5.2% YoY) amid overheated demand and labor markets. QPM-based estimates indicate that even with price controls, the IBL rate should have been around 9–9.5% on average in Q4-2024, rather than 5.6%, to mitigate macroeconomic stability risks. The National Bank maintained a subordinate position to the executive branch, with its ability to use monetary policy tools (refinancing rate, liquidity regulation auctions) restricted, and its capacity to counteract budgetary-driven money issuance virtually absent. In Q4-2024, the National Bank continued purchasing government bonds on the secondary market (Br1.05 billion from October to December and Br3.08 billion for 2024), contributing to increased budget expenditures.

# Bank loan and deposit rates rose in Q4-2024 primarily due to factors autonomous from monetary policy

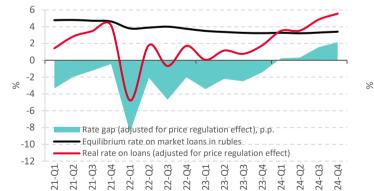
The average nominal rate on new fixed-term ruble deposits increased by 1.1 p.p. to 9.4% in Q4-2024, while the rate on new market-based ruble loans rose by 0.6 p.p. to 11.4%. The rise in interest rates was driven by a reduction in banks' liquidity surplus, an increase in the IBL rate, and higher interest rates in Russia. Significantly higher rates on Russian ruble instruments may have pushed banks to raise returns on Belarusian ruble deposits to prevent capital outflows, as well as the cost of loans in the national currency for firms due to their increased attractiveness relative to loans in Russian rubles.

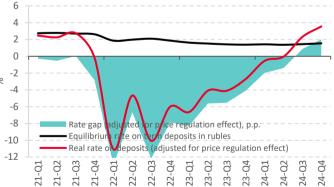
As a result, **loan and deposit rates increased in real terms and exceeded neutral levels in Q4-2024** (Fig. 3). However, the extent of this excess was not big. The rise in interest rates did not significantly restrict credit availability, especially in the household segment, where, due to the availability and prevalence of installment plans, the average interest rate on ruble loans did not increase in Q4-2024.

Figure 3. The nature of real interest rates on Belarusian ruble loans and fixed-term deposits of banks

a) average rate on new market Belarusian ruble loans (quarterly average)

b) average rate on new fixed-term Belarusian ruble deposits (quarterly average)





**Source:** The BEROC's calculations are based on QPM BEROC.

**Note:** Real interest rates have been calculated based on average nominal interest rates for businesses and households (according to the National Bank data) and the expected annual inflation in the next quarter (QPM-based).







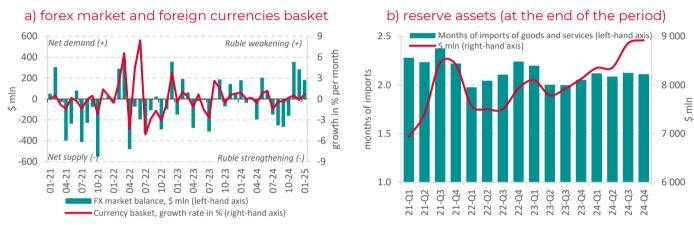
The spread between interest rates on new ruble market loans and new fixed-term deposits decreased to 1.5 p.p. in December 2024, significantly below its historical average (5.5 p.p. on average over the last 10 years; 3.5 p.p. on average over the last 5 years; 3.6 p.p. on average in 2018–2019; 4.2 p.p. on average in 2023–2024)

The estimated values of standard risk for market loans (EVSR), which effectively set the upper limit for their interest rates, have remained unchanged by the National Bank since August 2024. Due to banks significantly increasing the yield on Belarusian ruble deposits amid rising rates in Russia, the EVSR values have become restrictive for a corresponding increase in loan rates. As a result, the spread between loan and deposit rates narrowed sharply by the end of 2024, falling below its equilibrium level. Consequently, either an increase in the EVSR by the National Bank or a decrease in deposit rates can be expected. The first option is more likely, given the reduction in excess liquidity and the persistence of high interest rates in Russia.

### 2 Exchange rate policy: measures, direction, nature

### The exchange rate of the Belarusian ruble did not undergo significant changes in Q4-2024

Figure 4. Dynamics of the foreign currencies basket and of gold and foreign exchange reserves



Source: The BEROC's calculations are based on the data by the National Bank of Belarus.

**Note:** Figure 4.a illustrates the basket of 3 currencies (US dollar, euro and Russian ruble) from January 2019 to June 2022, and the basket of 4 currencies (US dollar, euro, Russian ruble, and Chinese yuan) from July 2022 to December 2022, and the basket of 3 currencies (US dollar, Russian ruble, and Chinese yuan) from January 2023 onwards. The dynamics updates once new data are published.

On average, the value of the three-currency basket (Russian ruble, US dollar, and Chinese yuan) decreased by 0.4% in Q4-2024 compared to Q3-2024 (Fig. 5.b). Fluctuations in exchange rates against individual foreign currencies were mainly determined by cross-currency dynamics in global markets: on average for Q4-2024, the Belarusian ruble appreciated by 4.6% against the Russian ruble but depreciated by 6.4% and 6.2% against the US dollar and Chinese yuan, respectively. The national currency remained slightly undervalued by ≈1.2% relative to the equilibrium level of the real effective exchange rate (REER) in Q4-2024 (Fig. 5.a).

A seasonal net demand for foreign currency amounting to \$478 million (≈\$145 million adjusted for seasonality) was observed in the domestic foreign exchange market in Q4-2024

The National Bank balanced the market and smoothed exchange rate volatility through interventions: net foreign currency sales (together with the operations of the Ministry of Finance) amounted to \$478 million in Q4-2024 (Fig. 4.a). Overall, the foreign exchange market balance for 2024 was close to neutral, with a net demand for foreign currency totaling \$23 million.

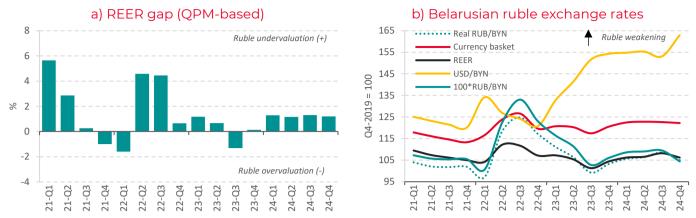








Figure 5. Effective Belarusian ruble exchange rates and deviations of REER from the equilibrium level

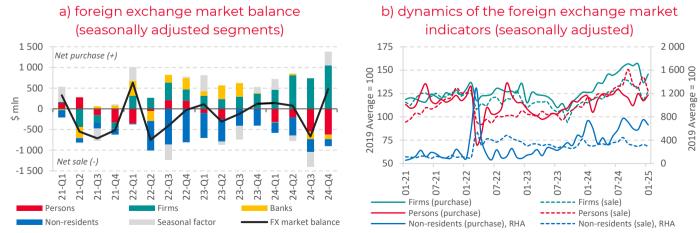


**Source:** The BEROC's calculations are based on the data of the National Bank of Belarus and QPM BEROC. **Note:** REER is the Real Effective Exchange Rate.

# Household foreign currency sales remained a key supporting factor for the foreign exchange market in Q4-2024 and throughout 2024

Individuals sold (on the net basis) over \$0.6 billion from October to December (seasonally adjusted) and \$1.7 billion for the entire year of 2024 (Fig. 6.a). Over the past 16 years, a higher net sales volume was recorded only in 2016 and 2017 (\$1.89 billion and \$1.76 billion, respectively). Strong demand for real estate, rising interest rates on term Belarusian ruble deposits, a nearrecord inflow of household funds into these deposits relative to disposable income (≈1.4% excluding accrued interest), and reduced incentives for foreign currency savings in a sanctionsaffected environment were the key factors driving significant net foreign currency sales by individuals. At the same time, a decline in household foreign currency purchases was observed in Q4-2024 (Fig. 6.b). This may be attributed either to rational consumer behavior in response to increased Belarusian ruble exchange rate volatility (delayed purchases) or to a shift in spending toward goods, with more personal and borrowed funds directed toward consumption amid the depreciation of the ruble against the US dollar (as the USD/BYN exchange rate remains a key economic indicator for Belarusian citizens). The second hypothesis appears more likely given the acceleration in retail trade and consumer lending growth in Q4-2024. Specifically, retail turnover increased by nearly 5% in Q4-2024 compared to Q3-2024 (in real terms, seasonally adjusted), while bank claims on households rose by 5.4%.

Figure 6. State of the domestic foreign exchange market



Source: The BEROC's calculations are based on the data by the National Bank of Belarus.

**Note:** The XI3 procedure in the JDemetra+ app has been applied to make a seasonal adjustment. As new data are published, the dynamics of the indicators for the previous periods is updated.









### Firms demonstrated record demand for foreign currency in 2024, the highest since 2010

Net foreign currency purchases by firms exceeded \$1 billion in Q4-2024 (seasonally adjusted) and \$3.1 billion for the entire year of 2024 (Fig. 6.a). In both cases, this represents the highest net demand since 2010. The shift of foreign trade in goods and services into deficit created conditions for increased foreign currency purchases by firms last year. Delays in receiving foreign exchange revenues were also observed, as external accounts receivable of organizations increased by 27% over the first 11 months of 2024. Additionally, significantly higher interest rates on loans in Russian rubles compared to those in Belarusian rubles may have prompted some enterprises to secure financing in Belarusian rubles and subsequently convert these funds into foreign currency instead of obtaining foreign currency loans directly.

In 2022–2023, foreign currency purchases by resident enterprises were offset by sales from non-residents amid the restructuring of supply chains and financing mechanisms. However, in 2024, this offsetting effect was no longer fully observed. **Non-residents sold approximately \$0.17 billion (seasonally adjusted) in net terms in Q4-2024 and \$1.1 billion for the entire year** (Fig. 6.a). Moreover, foreign currency purchases by non-residents noticeably increased in the second half of 2024 (Fig. 6.b). This may be the result of the gradual conversion and withdrawal of payments received in Belarusian rubles by holders of Belarusian eurobonds. Such a mechanism could explain the notable increase in net foreign currency sales by Belarusian banks in the second half of the year, which is atypical for them (Fig. 6.a).

## International reserve assets (IRA) increased by \$64 million in Q4-2024 and by \$795 million over the course of 2024, reaching \$8.92 billion as of January 1, 2025

The increase in reserves from October to December 2024 was primarily driven by a \$161 million rise in foreign currency assets. This was largely due to the accumulation of government deposits at the National Bank, which grew by \$587 million in Q4-2024, likely reflecting the buildup of resources for the implementation of specific mechanisms for the state's eurobond debt repayments. It is noteworthy that foreign currency assets increased even as the National Bank sold \$478 million in foreign exchange in Q4-2024. This indicates the significant role of the Russian ruble in the National Bank's foreign exchange interventions. Meanwhile, the value of monetary gold and Special Drawing Rights (SDRs) within the IRA decreased by \$44 million and \$52 million, respectively, due to a decline in global gold prices and the appreciation of the US dollar against the SDR. As of early 2025, reserve adequacy remained low: reserves were estimated to cover approximately 2.1 months of imports of goods and services (Fig. 4.b), while the most liquid component of reserves in foreign currencies covered only about 0.7 months.

## 3 Impact of monetary conditions on the credit and deposit market

### Lending grew rapidly in Q4-2024

The volume of newly issued loans exceeded the 2021 average by approximately 94%, reaching about 78% of GDP (Fig. 7.a). The credit impulse remained positive in Q4-2024 (Fig. 7.b). Loans denominated in Belarusian rubles expanded significantly in both the public and private sectors (Fig. 8). Meanwhile, foreign currency debt declined during the last quarter of the year. It is likely that some firms replaced foreign currency loans with Belarusian ruble loans, given the substantially higher interest rates on foreign currency loans (an average of 16.1% in October–December 2024, including 22.9% for Russian ruble loans) compared to loans in Belarusian rubles (11.6% for firms on average in the same period).



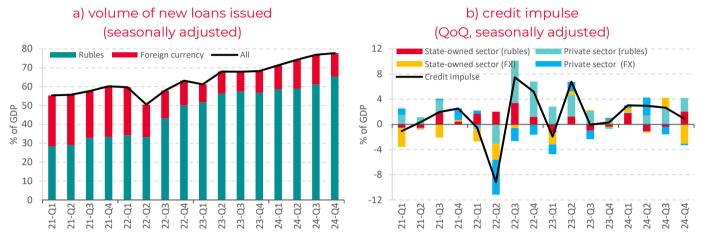






The increase in interest rates did not significantly restrict credit activity. Firms expanded their credit obligations to maintain high production volumes amid excessive domestic and external demand. Households increased borrowing due to high consumer confidence, improved creditworthiness driven by rising incomes, and the availability of installment payment plans, which even led to a slight decrease in the average interest rate on new consumer loans by 0.1 p.p. in Q4-2024.

Figure 7. Dynamics of new loans issued and credit impulse



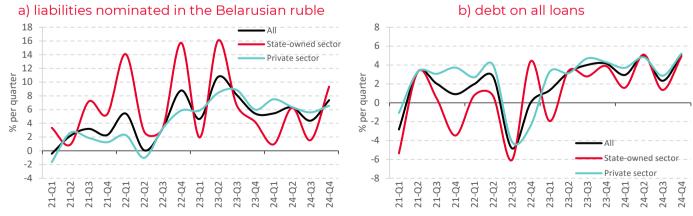
Source: The BEROC's calculations are based on the data by the National Bank of Belarus, Belstat.

**Note:** The credit impulse has been calculated as follows:  $ci_t = 100 * \left(\frac{cr_t}{ngdp_t} - \frac{cr_{t-1}}{ngdp_{t-1}}\right)$ , where  $ci_t$  is the credit impulse during period t;  $cr_t$  is the seasonally adjusted scope of newly issued loans during period t;  $ngdp_t$  is the seasonally adjusted volume of the nominal GDP during period t. The X13 procedure in the JDemetra+ app was applied to make a seasonal adjustment. The indicator dynamics updates once new data are published.

## Money supply growth slowed in Q4-2024 due to a decline in its foreign currency component but continued to outpace GDP dynamics

Broad money supply (hereinafter – M3) increased by  $\approx 2.6\%$  in Q4-2024 in nominal terms (average for Q4-2024 vs. average for Q3-2024) or by  $\approx 1.5\%$  in real terms (all indicators seasonally adjusted; Fig. 9.a). Quarterly money supply growth decelerated in Q4-2024 but still outpaced GDP growth (seasonally adjusted) by more than 1.5 p.p. The divergence between money supply and GDP growth accelerated in the second half of 2024, indicating a diminishing return on fiscal and monetary stimuli as production capacities reached full utilization.

Figure 8. Dynamics of bank loan investments (quarterly growth, seasonality adjusted)



Source: The BEROC's calculations are based on the data by the National Bank of Belarus.

Note: The indicator dynamics updates once new data are published.





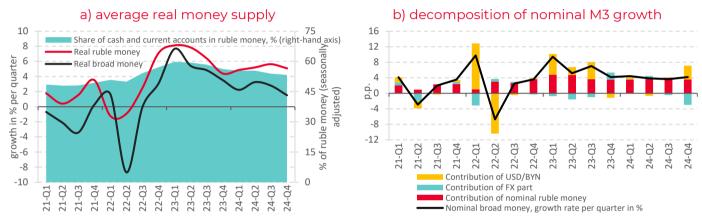


Broad money growth was driven by its Belarusian ruble component (Fig. 9.b). The ruble money supply increased by ≈6.2% in nominal terms or ≈5.1% in real terms (seasonally adjusted) on average for Q4-2024 compared to Q3-2024 (Fig. 9.a). This growth was fueled by rising credit issuance and increased government spending. Meanwhile, the foreign currency component of M3 shrank (Fig. 9.b), likely due to firms repaying their foreign currency obligations to banks.

## Overall, broad money supply grew by 16.9% YoY in 2024 (December 2024 vs. December 2023) against the National Bank's target of 11–15% YoY

The ruble money supply increased by 28.4% YoY in 2024, exceeding the National Bank's target forecast of 17–22% YoY. The significant deviation of actual money supply growth from the target highlights the institutional weakness of the National Bank and the lack of consistent monetary policy rules. The National Bank responded weakly to the widening economic overheating in 2024, did not explicitly counteract the increase in budget expenditures and directed lending, and relied on government price controls to meet its inflation target.

Figure 9. Average money supply dynamics (seasonally adjusted)



**Source:** The BEROC's calculations are based on the data by the National Bank of Belarus, Belstat. **Note:** M3 is a broad money supply. The indicator dynamics updates once new data are published. Real money supply growth is estimated by deflating nominal growth (quarterly average versus previous quarterly average) by the change in the average quarterly consumer price index (seasonality adjusted).

## 4 Monetary conditions short-term forecast

# The National Bank's monetary policy will remain moderately loose in 2025, provided there are no major shocks in the Russian and global economies

Due to the lack of operational and institutional independence, the National Bank will continue to implement monetary policy with high inertia and delayed responses to inflationary risks. The refinancing rate is expected to remain near 9.5% in 2025 in the absence of major shocks (Fig. 10.a). If price control measures are eased and inflation rises to 6–8%, an increase in the refinancing rate cannot be ruled out to prevent a loosening of monetary conditions. In this scenario, the National Bank may also resume regular liquidity regulation auctions for the banking system. However, under the baseline scenario, it is more likely that indirect tools (such as estimated values of standard risk, reserve requirements, and prudential lending restrictions) will be used instead. As a result, the interbank market rate could rise throughout the year but will remain below the neutral level in real terms.

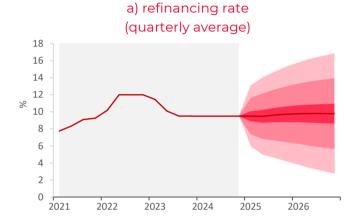




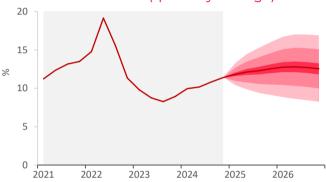
# Due to autonomous factors, loan and deposit rates will stay slightly above neutral levels in 2025, with a mildly restrictive, near-neutral impact on economic activity

Given the strong economic ties between Belarus and Russia, Belarusian banks will adjust to Russia's tight monetary conditions and keep loan and deposit rates in BYN slightly above their neutral levels in 2025 (Fig. 1). If inflation rises from 5.2% in 2024 to 6–8% in 2025, the average market loan rate in Belarusian rubles is expected to increase from 10.6% in 2024 to ≈12.2% in 2025 (Fig. 10.b), while the rate on new term deposits will rise from 7.7% to ≈10.5%. This will help slow the growth of lending and money supply. However, in the absence of strong shocks, bank credit to the economy will continue to grow at a high pace, as interest rates will not create significantly restrictive monetary conditions (especially for consumer lending), while authorities plan to significantly increase budget expenditures and maintain directed lending programs.

Figure 10. Interest rate forecast (QPM-based)



b) average interest rate on Belarusian ruble market loans (quarterly average)



**Source:** The BEROC's calculations are based on QPM BEROC.

**Note:** The ranges in the figure correspond to the 15%, 50% and 75% confidence intervals.

### The Belarusian ruble will depreciate by 4-6% in 2025 in terms of the currency basket

Foreign trade in goods and services is forecasted to be in deficit in 2025. Elevated domestic demand, especially in the consumer segment, will support a high volume of goods imports. Given increased logistics costs in a sanctions environment, the dynamics of goods imports into the country will be reflected in a significant value of imported services.

External demand will weaken this year due to the expected significant slowdown in Russia's GDP growth. In combination with infrastructural and resource constraints (full capacity utilization in industry, labor shortages, and limited access to advanced technologies), this will result in a slowdown in goods export dynamics. The export of services to foreign markets may moderately grow amid the restrained recovery of the ICT sector.

As a result, imports will continue to exceed exports this year, and the negative balance of foreign trade in goods and services is projected to be within 2% of GDP. Such a deficit is not critically large but rather moderate. However, the size of the deficit is highly likely to exceed Belarus's "norm," which may have shifted towards a small surplus after 2022 due to complications in accessing external financing.

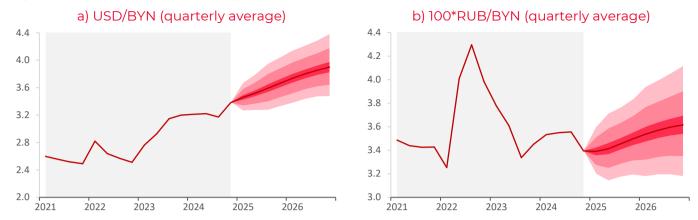
The projected foreign trade dynamics create conditions for a moderate depreciation of the Belarusian ruble, which may lose 4–6% of its value in terms of the currency basket in 2025. If the USD/RUB exchange rate remains around 101–106 Russian rubles per dollar, the USD/BYN exchange rate will be 3.5–3.6 on average in 2025 (Fig. 11.a). In this case, the exchange rate of 100\*RUB/BYN is forecasted at 3.4–3.5 on average in 2025 (Fig. 11.b).







Figure 11. Belarusian ruble exchange rate forecast (QPM-based)



Source: The BEROC's calculations are based on QPM BEROC.

Note: The ranges in the figure correspond to the 15%, 50% and 75% confidence intervals.

## The risks of deviation from the baseline forecast are high due to the "fragility" of Belarus's overheated economy and uncertainty in external conditions

The lack of rules in the implementation of monetary policy reduces its predictability, especially in the context of discretionary fiscal policy and the absence of National Bank independence. An increase in fiscal and quasi-fiscal stimuli in 2025 cannot be ruled out as authorities attempt to achieve the GDP growth target of 4.1%. If the National Bank does not respond to such a policy with an appropriate tightening of monetary conditions, excess demand will increase significantly. This will put additional pressure on the Belarusian ruble exchange rate, potentially leading to a greater depreciation than forecasted in the baseline scenario. Conversely, if the National Bank tightens policy under such circumstances, the negative consequences will directly impact private businesses due to the rising cost of market financing.

The divergence of monetary policy between Belarus and Russia – where interest rates in Russia are significantly higher than in Belarus – remains a risk factor for Belarus's foreign exchange market. Available data on loans to non-residents by Belarusian banks did not show a significant increase in borrowings in Belarusian rubles last year. It is possible that Russian entities increased lending through their Belarusian subsidiaries, but there was no extraordinary expansion of credit to resident firms in the national currency. The banking system remained in a state of liquidity surplus, and the interbank market rate did not even reach the refinancing rate. All this suggests that carry-trade operations, driven by the interest rate differential between loans in Belarusian and Russian rubles, if they occurred last year, were limited in volume. Nevertheless, the risks of such operations becoming more active remain high. Their realization would increase demand for foreign currency in the domestic market, intensify pressure on the Belarusian ruble exchange rate, and lead to a more significant rise in interest rates on loans and deposits in the national currency.

New significant sanctions and the threat of supply chain disruptions, as well as a contraction of the Russian economy and reduced demand from the Russian market for Belarusian goods, remain risk factors for the exchange rate dynamics: if they materialize, this will inevitably lead to a more significant depreciation of the Belarusian ruble (including against the Russian ruble) than assumed by the baseline scenario









### **Explainers**

### **Quarterly Projection Model (QPM)**

This is a semi-structural macroeconomic model based on the principles of new Keynesianism; it belongs to the class of dynamic stochastic general equilibrium models. Variables unobserved in the QPM (e.g., equilibrium (trendy) components of economic indicators) are estimated through the multivariate Kalman Filter. The QPM has been widely used for macroeconomic analysis, forecasting and monetary policy designs in central banks, including the National Bank of the Republic of Belarus. The QPM used in the preparation of this material has been developed by the BEROC experts. See: Quarterly Projection Model for Belarus: Methodological Aspects and Practical Applications.

### **QPM indicators**

### **Monetary conditions**

This is an indicator of the state of monetary conditions. It is a combination of gaps between the real effective exchange rate (with the opposite sign) and real interest rates. Positive values of monetary conditions indicate their constraining nature for economic activity, and their negative values indicate their stimulating nature for economic activity.

### **Output gap**

This is a deviation of a real GDP from its potential value. A potential GDP is such a GDP value that leads neither to additional inflationary nor disinflationary pressures. A positive output gap indicates excess demand in the economy, and it is an indicator of inflationary pressure. The opposite is true for a negative output gap.

#### Interest rate gap

This is a deviation of the real interest rate from its neutral level. A positive gap in the interest rate indicates that the nature of the interest rate policy is restraining to economic activity, while a negative gap in the interest rate indicates that the nature of the interest rate policy is stimulating to economic activity.

#### **Equilibrium (neutral) interest rate**

This is the level of the real interest rate corresponding to the growth rate of the potential GDP and the equilibrium real effective exchange rate.

### Real Effective Exchange Rate gap (REER gap)

This is a deviation of the real effective exchange rate of the Belarusian ruble from its equilibrium level. A positive real effective exchange rate gap indicates an undervaluation of the Belarusian ruble, while a negative real effective exchange rate gap indicates an overvaluation of the Belarusian ruble.

#### **Equilibrium Real Effective Exchange Rate**

This is the level of the Real Effective Exchange Rate (REER) that makes neither an additional proinflationary impact nor a disinflationary impact.









### **Notes**

Real interest rates are calculated by adjusting nominal rates for the projected annual inflation in the coming quarter estimated through the Quarterly Projection Model (QPM). Expert opinions were introduced into QPM in Q4-2022 and in Q1-Q4-2023 to correctly assess the deviation of real interest rates from their equilibrium (neutral) levels. This is because the introduction of a new price control system led to ad-hoc price reductions in Q4-2022, which significantly reduced rational inflation expectations estimated in QPM directly. Since rational expectations are used in the model to calculate real interest rates, their sharp decline has sharply increased the real interest rate estimates. Nonetheless, nominal interest rates on Belarusian ruble loans and deposits in the period under review rewrote their historical lows several times: lending was growing rapidly, and the share of "fast" money in the money supply structure reached its maximum for the first time in more than twenty years. To eliminate the ad-hoc impact of price declines on the estimates of the monetary conditions, the impact of the core inflation shock on the change in rational inflationary expectations in the period under review was evaluated and the estimates of the deviation of real interest rates from their equilibrium (neutral) levels were adjusted for the scale of this impact.

The XI3 procedure in the JDemetra+ app was applied to make a seasonal adjustment. As new data are published, the indicator dynamics in previous periods can be updated. The annualized price increase is calculated as a seasonally adjusted price increase per quarter raised to the fourth power (an annual inflation equivalent).

For more information about the dynamics, factors and projections of inflation processes in Belarus, see: BEROC (2025) Inflation Review: Q4-2024.

URL: https://beroc.org/upload/medialibrary/ed6/ed6d30b0b9102e3019ee5cdb9dcbd75b.pdf.

<sup>iv</sup> The nominal average rate on new term Belarusian ruble deposits increased from 8.3% on average in Q3-2024 to 9.4% in Q4-2024, including interest rates on corporate deposits, which increased from 7.9% to 9.1%, and interest rates on retail deposits, which increased from 10.8% to 11.4%.

<sup>v</sup> The nominal average interest rate on new market bank loans in Belarusian rubles increased from 10.8% on average in Q3-2024 to 11.4% in Q4-2024; in particular, interest rates on business loans increased from 10.9% to 11.6%, and interest rates on retail loans – decreased from 10.2% to 10.1%.



