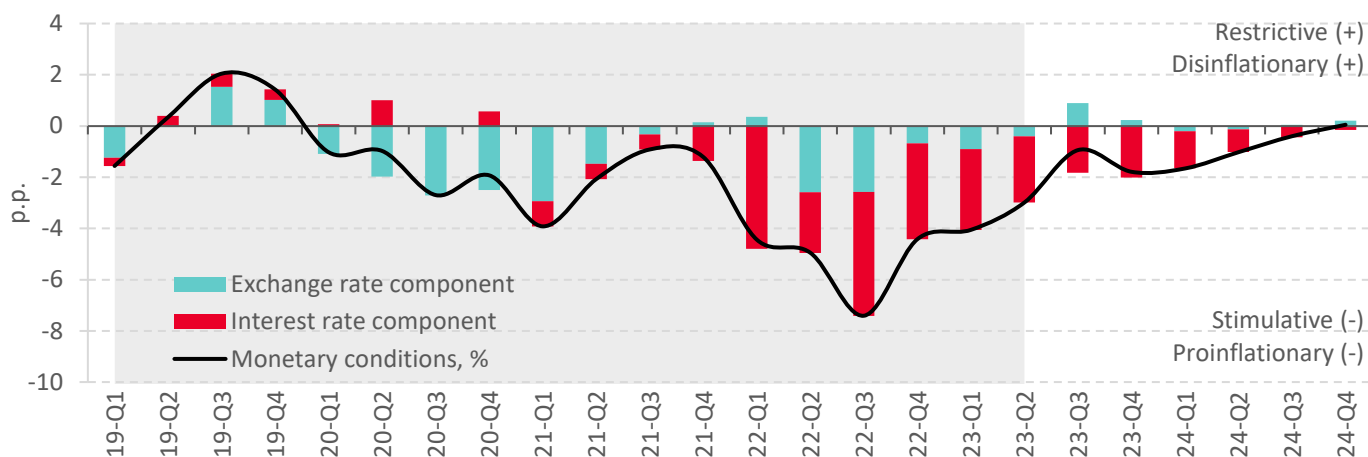


## Loose monetary conditions become a threat to price and financial stability

Monetary conditions remained loose in Q2-2023 (Figure 1). On the one hand, the undervaluation of the Belarusian ruble neutralized, and the Belarusian ruble was overvalued at the beginning of Q3-2023. However, on the other hand, the interest rates of the credit and deposit market remained much lower than neutral levels due to the expansionary monetary policy pursued by the National Bank. Monetary stimulus led to a positive output gap in Q2-2023. The pro-inflationary pressure of domestic demand intensified, and its transfer to prices was restrained by blanket price controls. A continued combination of price controls and overly loose monetary policy will lead to an accumulation of an inflationary overhang. This will be fraught with big costs in the form of a price spike and a sharp monetary policy tightening in 2024.

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



**Source:** The BEROC's calculations are based on the BEROC's Quarterly Prediction 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 forex 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 Quarterly Projection Model (QPM) for the Belarusian economy. See: WP BEROC no. 82: [Quarterly Projection Model for Belarus: Methodological Aspects and Practical Applications](#).

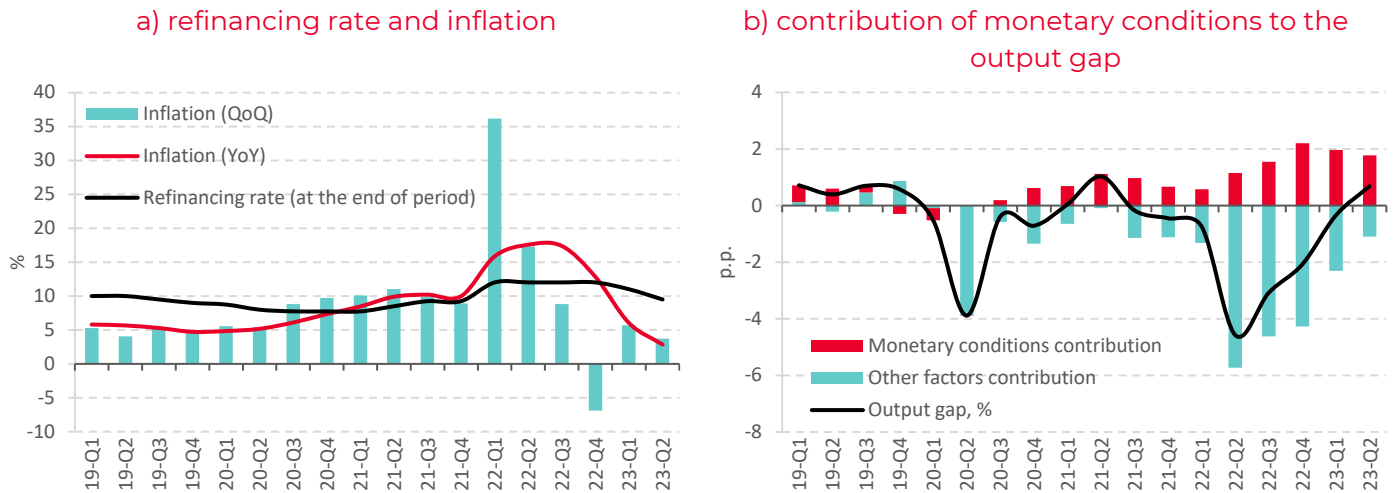
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# 1 Monetary policy: measures, direction, nature

## The National Bank maintained its loose monetary policy in Q2-2023

In Q2-2023, the National Bank lowered the refinancing rate three times: once by 0.5 p.p. in April and twice by 0.25 p.p., bringing its level to 9.5% by the beginning of August (Figure 2.a). The National Bank did not use any market instruments to regulate liquidity. At the same time, the National Bank actively issued Belarusian rubles through non-sterilized purchases of foreign currency in the domestic market. In this context, the banking system remained in a state of a significant excess and non-withdrawable — by the National Bank — liquidity (Figure 3.b).

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. The X13 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).

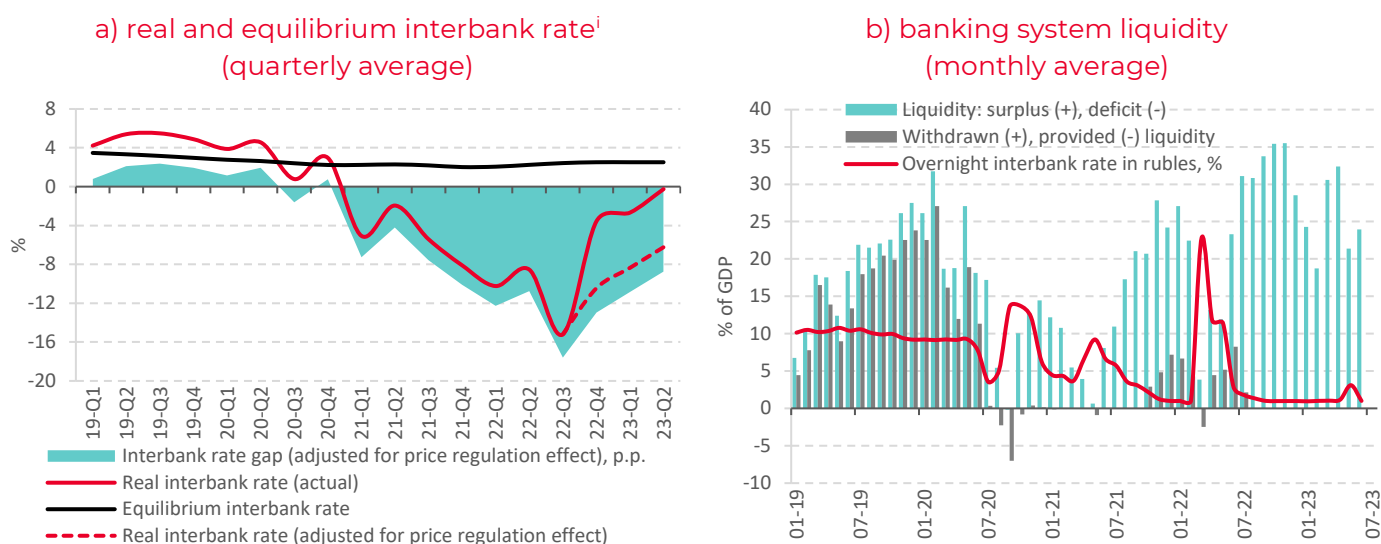
### The actions of the National Bank seem consistent against the backdrop of a shift in priority from price stability to supporting economic activity; however, maintaining loose monetary policy is becoming increasingly risky

Monetary conditions became one of the key drivers of GDP growth, which was accompanied by the formation of a positive output gap (Figure 2.b). A positive output gap signals the transition of the economy into an overheating phase, the scale of which is still small. At the same time, maintaining an excessively loose monetary policy could lead to maintaining or even widening the positive output gap. This will increase pro-inflationary pressure, the transformation of which into accelerated price growth has so far been restrained by blanket price controls exercised by the government. It should also be noted that the National Bank itself creates uncertainties and undermines the credibility of its policy, for example, by significantly reducing the scale of communications and published data. This also included the increase of the inflation target for 2023 to 7–8% at the end of last year, which was poorly substantiated, and the National Bank did not provide explicit inflation targets for economic agents for the medium term.

**The interest rate on the overnight interbank market in Belarusian rubles in the environment of non-withdrawable excess liquidity remained extremely low: it was close to 1% in April-July 2023**

The interbank rate remained negative in real terms: it was significantly below the equilibrium value estimated through the Quarterly Projection Model (QPM) (Figure 3.a). Thus, the interest rate policy of the National Bank remained extremely loose in Q2-2023. Interest rate policy is becoming pro-cyclical and increasing inflationary risks.

Figure 3. Nature of the interest rate policy of the National Bank



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

**Note:** Hereinafter, real rates are calculated by adjusting nominal rates for the projected annual inflation in the coming quarter estimated through the Quarterly Projection Model (QPM).

**Interest rates on deposits in Belarusian rubles remained significantly below the equilibrium (neutral) values amid a large-scale liquidity surplus in the banking system**

Interest rates on new fixed-term Belarusian ruble deposits increased by an average of 0.4 p.p. in Q2-2023, but remained close to their historical lows.<sup>ii</sup> In Q2-2023, the real average interest rate on fixed-term Belarusian ruble deposits remained below its equilibrium value estimated through the QPM (Figure 4.b). Thus, deposit rates did not facilitate additional incentives for savings in the national currency.

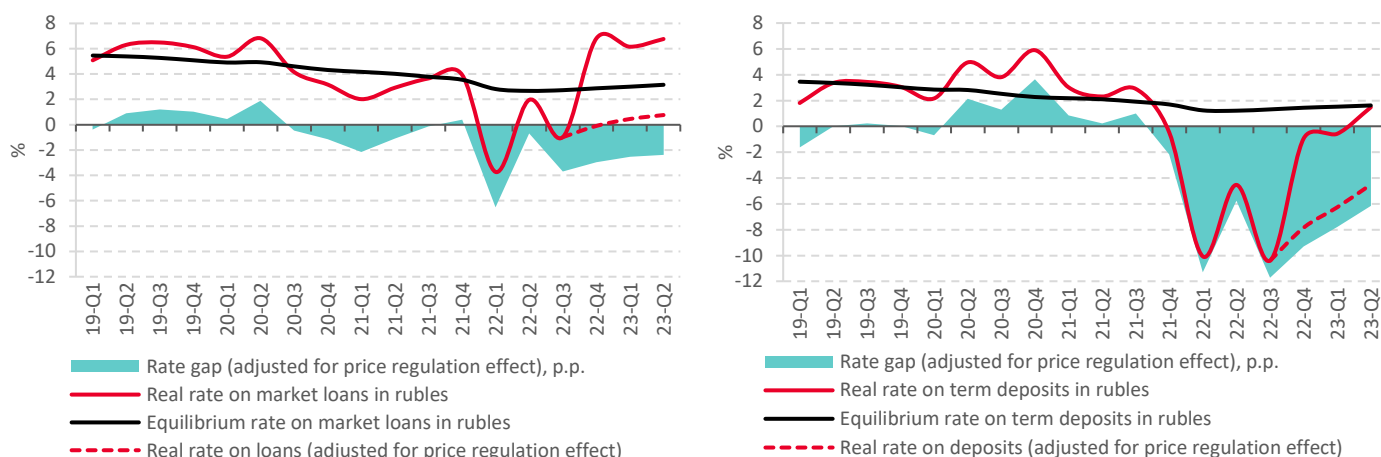
**Loose monetary policy of the National Bank continued to be translated into interest rates on the Belarusian ruble market loans of banks, which again updated their lows**

The nominal average rate on new market loans in Belarusian rubles decreased by 1 p.p. in Q2-2023 and reached its new all-time low of 8.5% in June.<sup>iii</sup> In real terms, the average rate on Belarusian ruble loans in Q2-2023 was estimated to be below its equilibrium level estimated through the QPM (Figure 4.a). This meant that lending rates had a stimulating effect on the credit and overall economic activity in the country.

Figure 4. 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 on the basis of average nominal interest rates for firms and households (according to the National Bank data) and the expected YoY inflation in the next quarter (QPM-based).

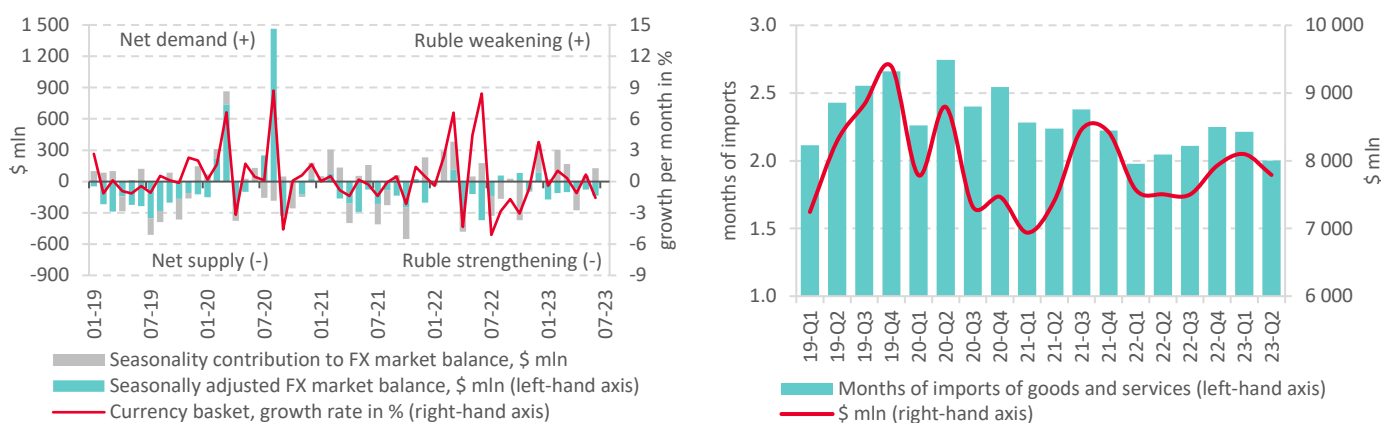
## 2 Forex policy: measures, direction, nature

### The Belarusian ruble strengthened on average in Q2-2023 due to retaining the net supply of foreign currency in the domestic market

Figure 5. Dynamics of the foreign currencies basket and of gold and foreign exchange reserves

a) forex market and foreign currencies basket

b) gold and foreign exchange reserves (at the end of the period)



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

Note: Figure 5.a shows 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 X13 procedure in JDemetra+ was applied to make a seasonal adjustment. The indicator dynamics updates once new data are published.

On average, the value of the basket of 3 foreign currencies (Russian ruble, US dollar, Chinese yuan) decreased by 0.4% in Q2-2023 versus Q1-2023. In terms of the nominal effective exchange rate, the Belarusian ruble appreciated by 1.7% over the same period (Figure 6.b). The strengthening of the ruble was the result the net supply of foreign currencies in the domestic market. At the same time, the decrease in net supply of foreign currencies in May-June can be explained by the factor of seasonality (Figure 5.a).

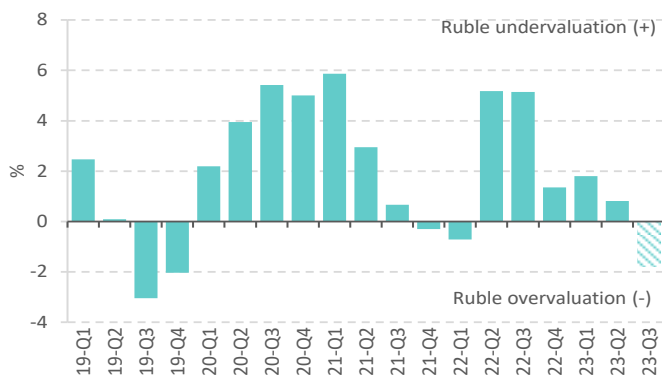
Foreign exchange rate fluctuations against some currencies mainly echoed the dynamics of their forex cross-rates in foreign markets: in Q2-2023 on average, the Belarusian ruble depreciated by 6.5% against the US dollar, by 8% against the euro, and by 4% against the Chinese yuan, while strengthening by 4.3% against the Russian ruble. The National Bank smoothed out the volatility of the national currency through foreign exchange interventions: its purchase of foreign currencies (together with the Ministry of Finance) amounted to \$307 million in Q2-2023.

**The Belarusian ruble could enter the overvaluation zone by early Q3-2023**

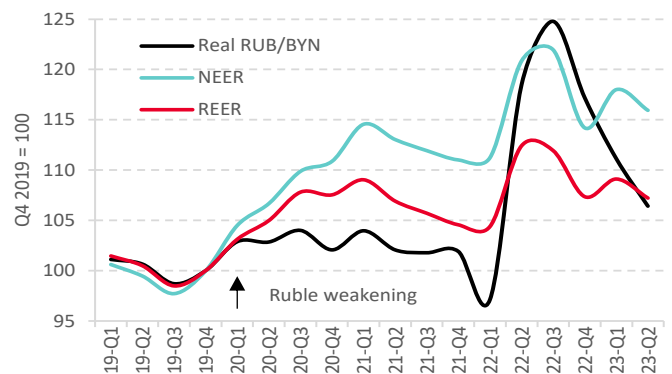
In Q2-2023 on average, the real effective exchange rate of the Belarusian ruble was close to its equilibrium level estimated through the QPM (Figure 6.a). However, heavy strengthening of the Belarusian ruble against the Russian ruble in late Q2-2023 did not have enough time to fully translate into the average quarterly 100\*RUB/BYN exchange rate. The results of applying the QPM show that if the USD/BYN and 100\*RUB/BYN exchange rates are found at levels close to the July values in Q3-2023 on average, the Belarusian ruble will be somewhat overvalued in terms of the real effective exchange rate (Figure 6.a). The overvaluation of the national currency means the loss of competitive advantages by Belarusian producers due to the exchange rate factor, which may have a restraining effect on net exports.

Figure 6. Effective Belarusian ruble exchange rates and deviations of the Real Effective Exchange Rate from the equilibrium level (QPM-based)

a) deviation of the Real Effective Exchange Rate from its equilibrium



b) Belarusian ruble exchange rates



**Source:** The BEROC’s calculations are based on the data of the National Bank of Belarus and QPM BEROC.  
**Note:** These are the Nominal Effective Exchange Rate (NEER) and the Real Effective Exchange Rate (REER).

**International reserve assets (IRA) decreased in Q2-2023**

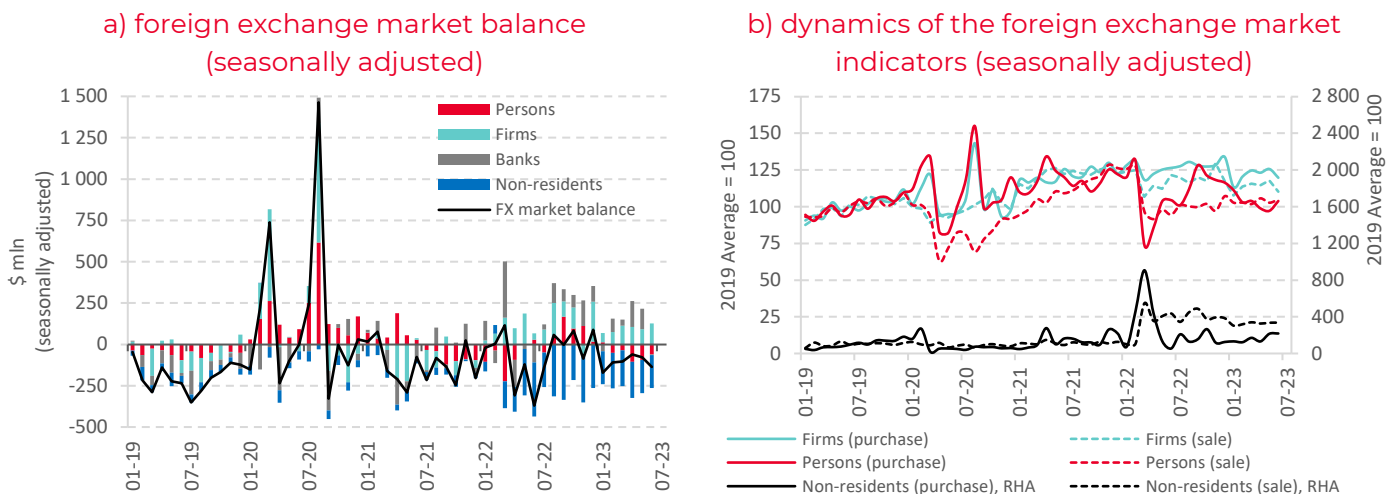
IRA decreased by \$307 million in Q2-2023 (Figure 5.b). A decrease in IRA in this amount looks atypical amid the purchase by the National Bank (together with the Ministry of Finance) of foreign currencies in the amount equivalent to \$307 million, and this cannot be fully explained by the fluctuations in the price of gold. The National Bank's FX liabilities to state authorities increased by \$102.7 million in Q2-2023; therefore, transactions associated with the government's debts did not put pressure on IRA. It is possible that the decline in IRA is due to the increase of the National Bank's foreign currency deposits in Belarusian banks by more than \$180 million in Q2-2023 (on a net basis, net of changes in banks' deposits in the National Bank). It cannot be ruled out that the National Bank deposits a part of its foreign currency in Belarusian banks (and not in foreign banks) in order to mitigate the potential impact of shrinking IRA on inflation and devaluation expectations of households and businesses if there are signs of crisis: using these foreign currency deposits to combat speculative attacks on the foreign exchange rate will lead to a smaller fall in IRA, since these funds have not been taken into account in the reserves.

**Once seasonally adjusted, the net supply of foreign currency remained unchanged on the foreign exchange market in Q2-2023**

The situation on the foreign exchange market did not change significantly in Q2-2023. Non-residents remained the main donors of foreign currency (Figure 7.a), which could reflect the payment operations related to imports to Russia through Belarus. In Q2-2023, net sellers of foreign currency (seasonally adjusted) were also individuals. The volumes of foreign currencies purchases by households remained low and in April-June: they were close to the figures of 2019 (Figure 7.b) despite the observed increase in wages and incomes. Possibly, household demand for foreign currency is constrained by the challenged outbound tourism and banking transactions in US dollars and euros. The volume of foreign currency sales by households also remained low in Q2-2023, and it was close to the 2019 figures (Figure 7.b). Probably, low rates on Belarusian ruble deposits and insufficient confidence in the national currency do not create additional incentives to transform savings in foreign currency into savings in Belarusian rubles.

Stable net demand for foreign currency was maintained by enterprises in Q2-2023 (Figure 7.a). The key factor supporting it was the change in the currency of firms' liabilities under bank loans, accompanied by purchases of foreign currency to pay off the debts nominated in foreign currencies. In addition, the surplus of foreign trade in goods and services (seasonally adjusted) could significantly decrease or even become negative (seasonally adjusted) in Q2-2023 amid a fading impulse to increase the physical volumes of exports of goods, the stagnation of the IT sector, and the deterioration price terms of trade.

Figure 7. 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 X13 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.

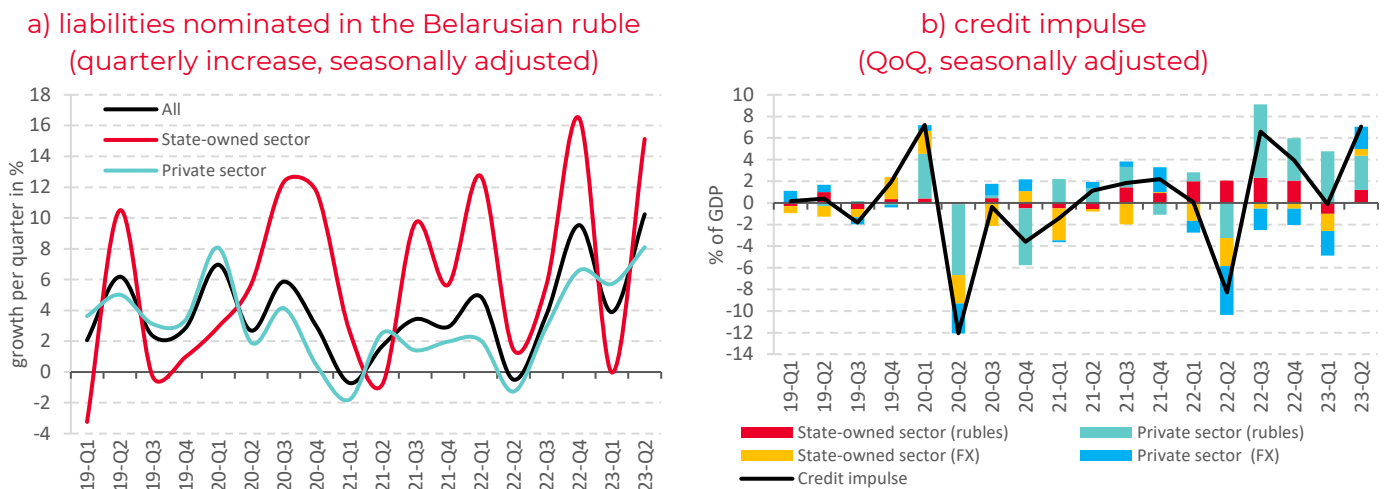
### 3 Impact of monetary conditions on the credit and deposit market

#### Lending continued to expand rapidly in Q2-2023 amid loose monetary conditions

Low interest rates and, probably, higher availability of credit resources in general amid the economy adapting to the sanctions environment supported high lending activity in the private sector. Thus, lending in Belarusian rubles increased markedly in Q2-2023 both in the segment of private businesses and households. This was echoed by a stronger credit impulse, the scale of which was significant compared to recent years (Figure 8.b). Belarusian ruble bank lending liabilities of the private sector increased significantly in Q2-2023 amid a strong credit impulse (Figure 8.a). At the same time, growing arrears in Belarusian rubles were partly explained by the currency switch of lending liabilities due to challenged transactions in US dollars and euros for both firms and banks.

Lending activity increased sharply in the SOE segment in Q2-2023 (Figure 8). The segment of state-owned enterprises is generally characterized by high volatility of loan debts, which may reflect the impact of non-market instruments on it.

Figure 8. Loans' and credit impulse dynamics



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

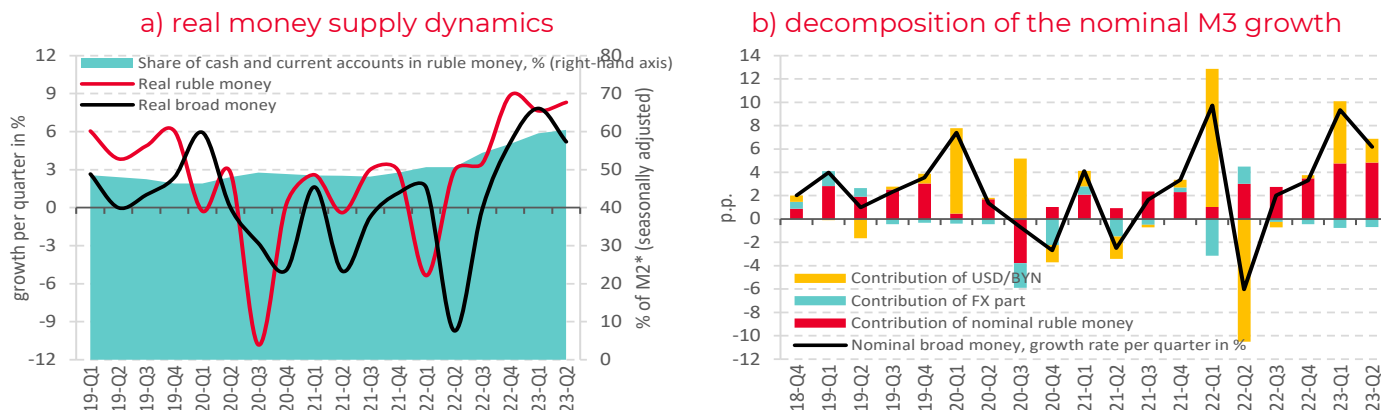
**Note:** The credit impulse has been calculated as follows:  $ci_t = 100 * \left( \frac{cr_t}{ngdp_t} - \frac{cr_{t-1}}{ngdp_{t-1}} \right)$ , where  $ci_t$  is the credit impulse during period  $t$ ;  $cr_t$  is the seasonally adjusted scope of newly issued loans during period  $t$ ;  $ngdp_t$  is 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 in Q2-2023 continued to grow at an accelerated pace, and its volume exceeded the inflation-neutral level

Broad money supply (M3) increased by  $\approx 6.2\%$  in nominal terms or by  $\approx 5.2\%$  in real terms in June 2023 versus March 2023 (all indicators were seasonally adjusted). In the context of high lending activity, the M3 growth was mainly due to an increase in the volume of funds in Belarusian rubles (Figure 9.b): the Belarusian ruble money supply (M2\*) grew by  $\approx 9.3\%$  in nominal terms or by  $\approx 8.3\%$  in real terms in Q2-2023 (Figure 9.a). The M2\* contribution to the quarterly M3 growth remained at the level of the previous quarter, and this was the maximum value since 2017 at least.

Real money supply has been growing in recent quarters at a rate that is noticeably higher than inflation-neutral (which corresponds to changes in potential GDP and the equilibrium velocity of money). This may result in the accumulation of an inflationary overhang formed under the influence of an excessively loose monetary policy that contradicts the monetary targeting regime announced by the National Bank.

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. M2\* is a (Belarusian) ruble money supply. The X13 procedure in the JDemetra+ app was applied to make a seasonal adjustment. The indicator dynamics updates once new data are published. The real money supply growth has been calculated by deflating the nominal increase (the last month of the quarter versus the last month of the previous quarter) by the quarterly change (seasonally adjusted) in the Consumer Price Index.

**Rapid growth of cash and current accounts is the main component of the strong growth of the Belarusian ruble money supply**

Cash and funds on current accounts increased by  $\approx 11\%$  in nominal terms or by  $\approx 10\%$  in real terms in Q2-2023. As a result (seasonally adjusted), the share of cash and current accounts in M2\* in June 2023 reached its maximum value since January 2003: it was over 60% (Figure 9.a). A significant increase in the share of cash and current accounts in M2\* indicates that the interest rates on Belarusian ruble assets were low relative to their neutral levels. In combination with insufficient confidence in the National Bank, this situation does not create additional incentives to actively build up long-term organized savings in the national currency. The predominance of “hot” money in the Belarusian ruble money supply makes it less resistant to shocks, which can increase the inflationary and devaluation consequences of the crisis phenomena.

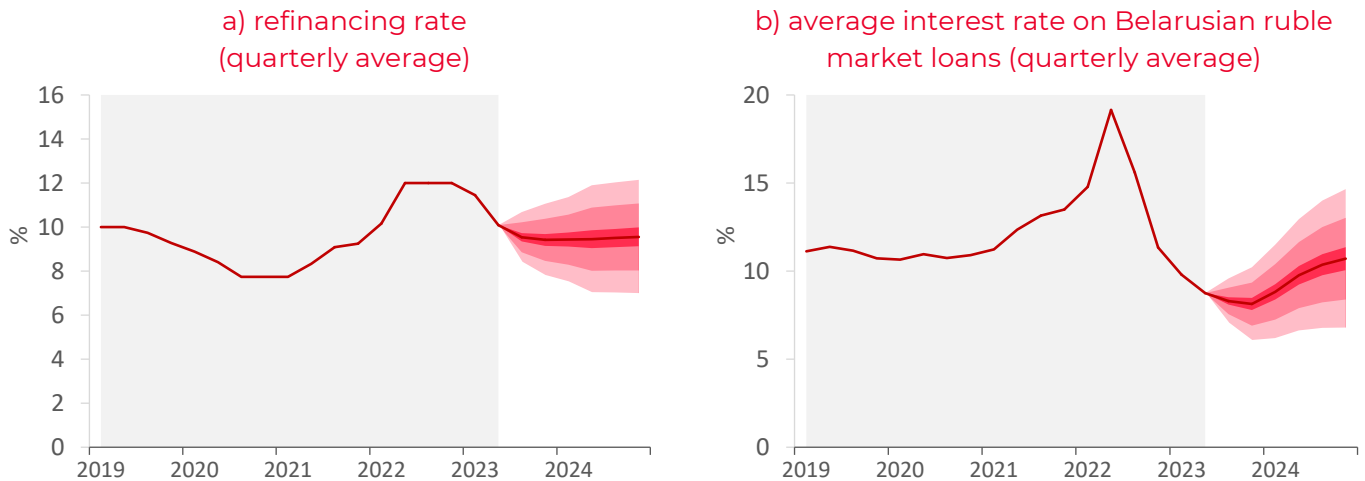
**4 Monetary conditions short-term forecast**

**Preservation of loose monetary conditions in the second half of this year looks dangerous, but there are no signs of tightening the policy of the National Bank yet**

Maintaining loose monetary policy in the context of growing inflationary pressures from domestic demand and the labor market is likely to be associated with continued government pressure on the National Bank in an attempt to ensure high GDP and investment growth targets in 2023. In addition, in an environment of blanket price controls, annual inflation may drop to 2% or even slightly lower in September and only begin to accelerate rapidly starting from October.<sup>iv</sup> Actual inflation dynamics may become a formal argument for the National Bank to maintain its loose monetary policy and a refinancing rate of about 9–9.5% in 2023 (Figure 10.a). It is likely that the National Bank will not go for a heavy reduction (or even just a reduction) in a refinancing rate due to the threat of a significant inflation acceleration in 2024.



Figure 10. Interest rate forecast (QPM-based)



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

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

### Interest rates on the credit and deposit market will remain low in 2023

The baseline scenario assumes that the National Bank will begin to gradually return to active regulation of bank liquidity only towards the end of 2023 — at the beginning of 2024. This will mean maintaining the interbank loan rate at low levels (assuming there are no major shocks) and interest rates on loans and deposits in Belarusian rubles close to their historic lows this year (Figure 10.b). A gradual narrowing of the stimulating effect of interest rates and a gradual transition of the National Bank to a neutral monetary policy with an intensification of inflationary risks are possible in 2024 (Figure 1). This implies an increase in the interbank loan rate to the range of 9–11% during 2024 and an increase in deposit and lending rates (Figure 10.b).

### Continued blanket price controls combined with loose monetary policy will lead to growing imbalances in the economy

In the context of the overheated domestic demand and the labor market, delaying the exit from strict state regulation will be associated with ever greater potential costs in the form of an inflationary surge and a sharp tightening of the monetary policy in the future. The baseline scenario described above suggests that a gradual tightening of monetary policy from late 2023 to early 2024, reaching a neutral state during 2024, will limit consumer price growth to 7–10% in 2024. If the 2024 inflation target of the National Bank (which has not been announced) is close to 5–6%, then monetary policy should be tightened as early as Q3-2023. This is because the time lag between the adoption of monetary policy decisions and the effects of these decisions on economic activity and inflation is several quarters to a year. Delayed decision-making will increase the scale of the sharp adjustment to be required in 2024.

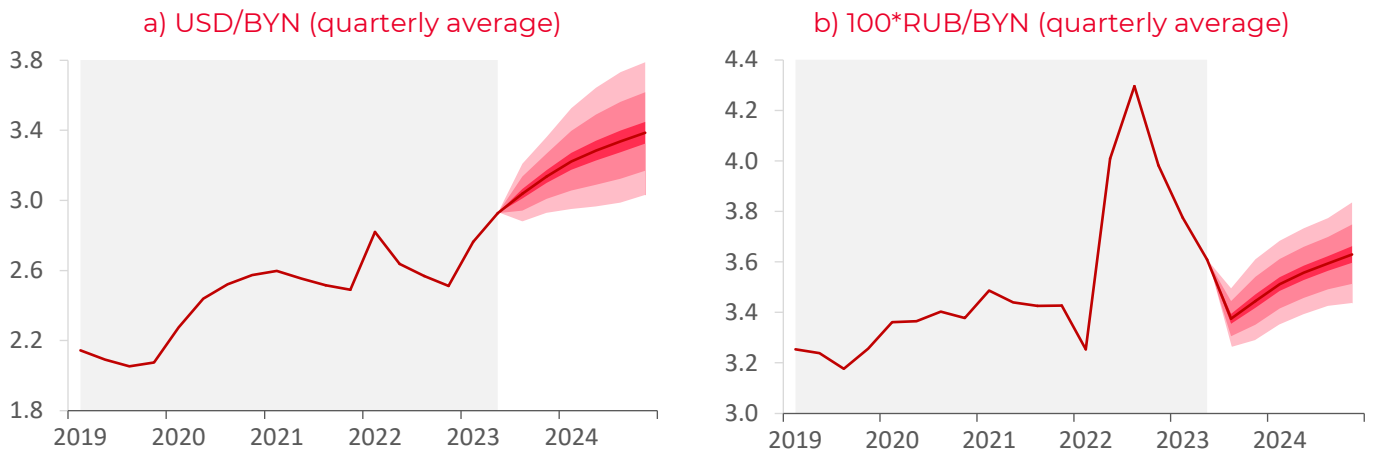
### Deterioration of foreign trade and low interest rates on Belarusian ruble assets form conditions for the weakening of the Belarusian ruble

Net exports have prerequisites for deterioration in the second half of the year. On the one hand, stimulating domestic demand leads to high demand for imports. On the other hand, the price conditions of foreign trade have deteriorated due to lower global prices for commodities exported by Belarus, and exporters are losing support due to the overvaluation of the Belarusian ruble against the Russian ruble, high competition in the Russian market and, in general, due to the expected slowdown in the growth of the Russian economy.

As a result, the Belarusian ruble may weaken somewhat by the end of this year (Figure 11). Considering the projected exchange rate dynamics, the overvaluation of the Belarusian ruble will decrease by the end of the year (Figure 1).

Devaluation risks for the exchange rate dynamics remain due to the uncertainty of new manifestations of sanctions restrictions and due to the likelihood of a larger-scale stimulation (more than assumed in the baseline scenario) of domestic demand in Belarus. In addition, the dynamics of the Belarusian ruble exchange rate against certain foreign currencies will be significantly affected by the dynamics of the Russian ruble exchange rate against the US dollar, where increased volatility cannot be ruled out. In turn, if supply chains remain tuned and if demand remains strong on the Russian market, the Belarusian ruble may become stronger this year than the baseline scenario suggests.

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



**Source:** The BEROC’s calculations are based on QPB BEROC.

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

## 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 pro-inflationary impact nor a disinflationary impact.

## Comments

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<sup>i</sup> Expert opinions were introduced into QPM in Q4-2022, Q1-2023 and Q2-2023 to correctly assess the deviation of real interest rates from their equilibrium (neutral) levels. This is due to the fact that the introduction of a new price control system led to ad-hoc price reductions in Q4-2022, which significantly reduced rational inflation expectations calculated directly in QPM. 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.

<sup>ii</sup> The nominal average rate on new term Belarusian ruble deposits increased from 3.1% on average in Q1-2023 to 3.5% in Q2-2023, including interest rates on corporate deposits, which increased from 1.9% to 2.5%, and interest rates on retail deposits, which decreased from 8.8 to 8.4%.

<sup>iii</sup> The nominal average rate on new market bank loans in Belarusian rubles decreased from 9.8% on average in Q1-2023 to 8.8% in Q2-2023; in particular, interest rates on business loans decreased from 9.6% to 8.5%, and interest rates on retail loans decreased from 11.4% to 10.6%.

<sup>iv</sup> For details see: [Inflation Review: Q2-2023](#) (BEROC, 2023).