II quarter
2023

# MONETARY POLICY REPORT

Tashkent
2023

Central Bank of the Republic of Uzbekistan

## The implementation of monetary policy is centered around ensuring the price stability and achieving the medium-term inflation target of 5%

## CONTENTS

## SUMMARY

*At a meeting on July 27, 2023, the Board of Governors of the Central Bank left the main rate unchanged at **14% per annum**. The decision is made on the backdrop of continuing price pressures associated with demand factors in the economy, despite continuing decline in inflation and expectations, in order to ensure the inflation to be at the forecasted range by the end of the year.*

Since the beginning of the year the **headline inflation** has been on a downward trend amounting **to 9%** year-on-year in June. In doing so, fading out last year's high base effects, relatively stable import and regulated prices served as the main downward factors. There was no significant decline in services inflation due to the continued strong demand.

**Core inflation,** calculated excluding administrative and seasonal factors, decelerated more slowly than expected and amounted **to 11.3%** in June. As a result, the difference between core inflation and headline inflation is increasing. Also average annual inflation is observed to be higher than the current inflation.

This tendency is reflected in the high share of goods and services with price increase of more than 10%, which indicates there is still demand pressures and an imbalance of supply and demand in consumer markets.

The **inflation expectations** of households and businesses entities decreased **to 13-13.5%,** in June. Meanwhile, there is an increase in the share of respondents denoting the exchange rate developments and the raise in wages and pensions as the main inflation drivers, in the future.

In the first half of 2023, **the economy has grown by 5.6%,** higher than the same period of last year. Growth of loans to the economy, increased budget expenditures, in particular, raised wages and pensions are among the main drivers of economic activity.

High growth pace in revenues from trade and paid services, real estate contracts, interbank transactions, and retail trade volumes indicate strong consumer demand in the economy.

Moreover, there is a significant rise in imports, which is, on the one hand, indicates increasing domestic activity, and, on the other hand, serves as a driving demand factor in the foreign exchange market.

The volume of cross-border remittances has been growing within its fundamental trend.

Although **global economic activity** has been growing faster than was expected, the uncertainty regarding its future trajectory still remains high. **Global inflation** is easing as high base effects of world commodity prices fade out. However, in most countries the core inflation is projected to remain high, until the end of the year.

Even though the economic developments **in the trade partner countries** has a relatively positive impact on the domestic economy, there is devaluation pressure on the national currencies of some partners, which in turn might have some impacts to national economy.

In H1 this year, **monetary conditions were ensured "relatively tight".** Activity in the interbank money market increased significantly, and the **Uzonia** rate as well as interest rates on interbank **Repo** transactions formed fully within the interest corridor close to the policy rate.

Average interest rates in the **loan and deposit** markets are forming almost without changes compared to previous months.

A growth of **loans to the economy** has been largely driven by loans to individuals. As of June, loans provided to individuals, increased **by 1.7 times** compared to the corresponding period of the previous year. Meanwhile, the annual growth of retail loans slowed down slightly compared to the previous month. At the same time, provided corporate loans amounted at **116 trln.** sums and increased by **13%** in H1 this year, comparing to the same period of last year.

There is continued momentum in the growth of **deposits in national currency,** while the level of dollarization of deposits continues to decline. The increase in the volume of deposits in national currency is caused by high real interest rates on term deposits.

According to **the updated forecasts,** due to the continued adjustment of the economy to external economic conditions and the persistence of uncertainties, the real GDP growth is expected to be around **5.0-6.0%,** by the end of 2023.

Meanwhile, an increase in incomes of the population, fiscal stimulus and higher activity in the service sector will be the main drivers of economic growth.

By the end of this year, inflation is projected to form within the baseline scenario of macroeconomic development around **8.5-9.5%.**

In the context of stabilized global commodity prices, recovery of supply chains, and enhanced domestic economic activity, **persistence of higher core inflation** indicates prevalence of **fundamental demand factors** putting upward pressure on prices in the economy and requires maintaining the current stance of monetary conditions for a longer period of time.

On the other hand, uncertainties regarding the duration of the recent improved dynamics in food import supply remain high. In addition, rising costs in agricultural sector may create additional pressure on prices in conditions of strong demand.

In order to ensure price stability in the medium-term perspective, based on the objectives of coordinated implementation of monetary and fiscal policies it is crucial to ensure the budget deficit not exceeding the set parameters.

In the coming periods, core inflation forecast and inflation expectations shifting to a reliable downward trajectory may allow to lower the policy rate.

The Central Bank will continue to thoroughly assess the impact of monetary conditions on aggregate demand, prices and inflation expectations. Measures to be taken will be aimed at forming inflation within the projected corridor and achieving inflation target in the medium term.

# I. INTERNAL ECONOMIC CONDITIONS

*In Q2 of 2023, the increase of loans to the economy compared to last year, high fiscal spending due to higher wages and social benefits, became the major drivers of economic activity and aggregate demand.*

## 1.1. Economic growth and dynamics of aggregate demand

After some decline in Q1, the **recovery of economic activity** has manifested itself in high revenues from trade and services, in the number of real estate transactions, the volume of interbank operations, and in the retail turnover.

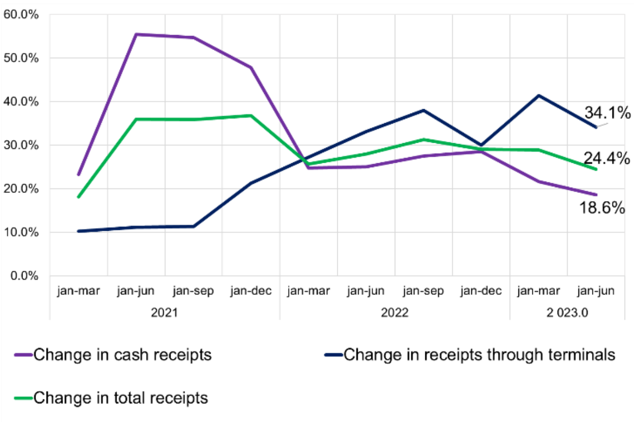
In particular, in the first half of the year, the revenues from trade and services increased by 24.4% compared to the corresponding period of last year. Moreover, the growth maintained throughout all the past months *(Figure 1.1.1).*

The average monthly salary, in Q2, amounted to 4.3 million soums and increased by 22% annually. During this period, the real total income of households increased by 6.5% compared to the corresponding period of last year *(Figure 1.1.2).*

In the first half of 2023, the number of real estate trade deals amounted to 166 thousand, which is 5.3% in annual growth rate, while the volume of mortgage loans to households increased by 6.7%. Thus, the demand in the real estate market remains high *(Figure 1.1.3).*

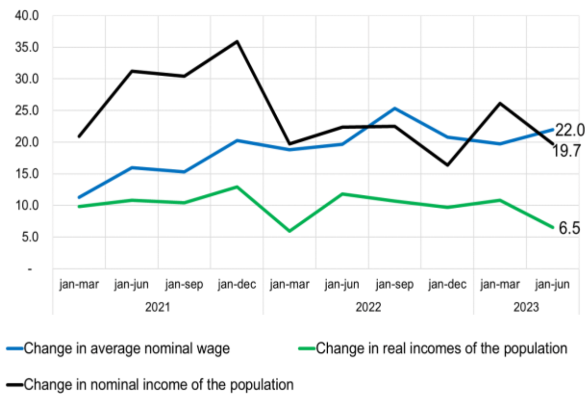
Strong economic activity has also manifested itself in a 37.9% annual rise in the volume of interbank transactions, in the first half of the year *(Figure 1.1.4).*

**Figure 1.1.1. Revenues from trade and services,** *(in %)*



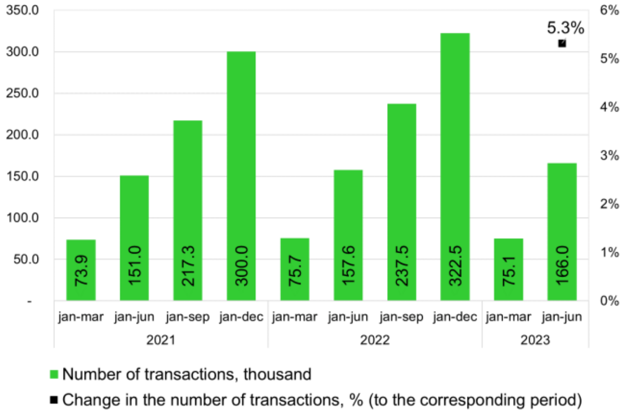

Source: CBU.

**Figure 1.1.2. Average nominal wages, nominal and real changes in income of households** *(y-o-y, in %)*



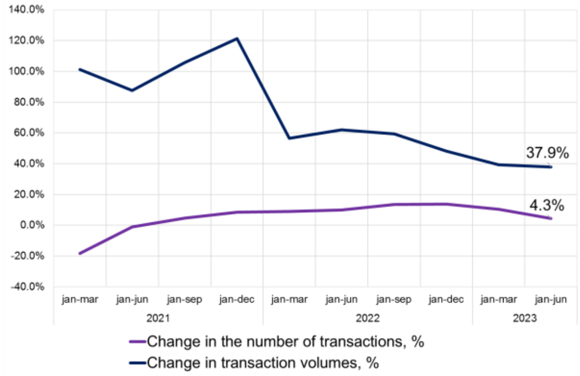

*Source: Statistics Agency.*

**Figure 1.1.3. Number of housing transactions**




*Source:* Ministry of Justice, *e-notarius.*

**Figure 1.1.4. Changes in the number and volume of the interbank transactions** *(y-o-y, in %)*



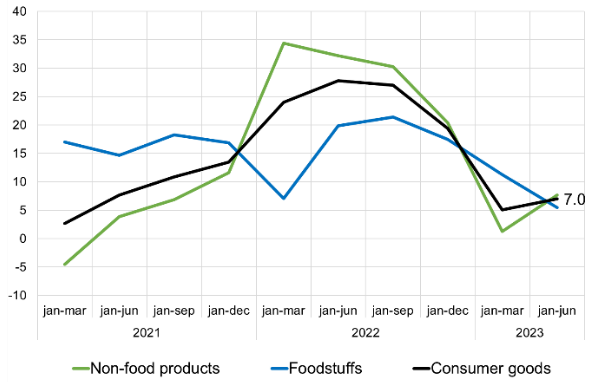

*Source:* CBU.

Higher demand in the economy caused the increase of consumer goods production by 7%, in the first six months of the year. Thus, retail trade rose by 6.9% annually *(Figures 1.1.5-1.1.6).*

**Investment activity** rose by 7.9% compared to the same period of last year. The volume of private investments increased by 8.7% during this period, contributing a 7.6% growth to total investments *(Figure 1.1.7).* Foreign direct investments amounted to 2.1 billion dollars, which is an increase by 27.3% compared to the corresponding period of last year *(Figure 1.1.8).*

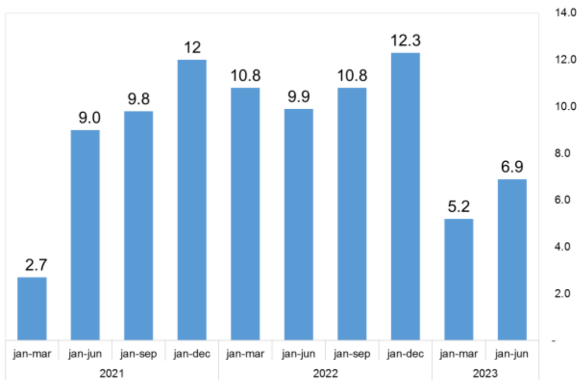
The acceleration of economic activity and an increase in income of households contributed to real GDP growth. In the first half of 2023, the annual **real economic growth amounted to 5.6%** *(Figure 1.1.9).*

**Figure 1.1.5. Change in the volume of consumer goods production,** *(y-o-y, in %)*



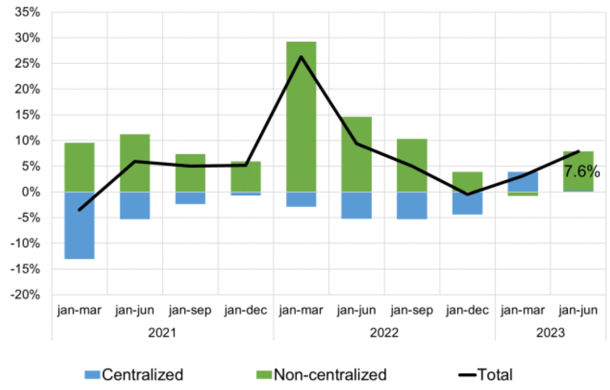

*Source: Statistics Agency.*

**Figure 1.1.6. Change in retail turnover**, *(y-o-y, in %)*



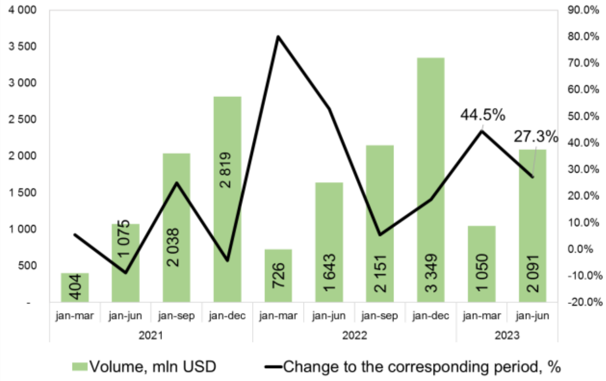

*Source: Statistics Agency.*

**Figure 1.1.7. Real growth of investments into fixed asset,** *(y-o-y, in %)*




Source: Statistics Agency.

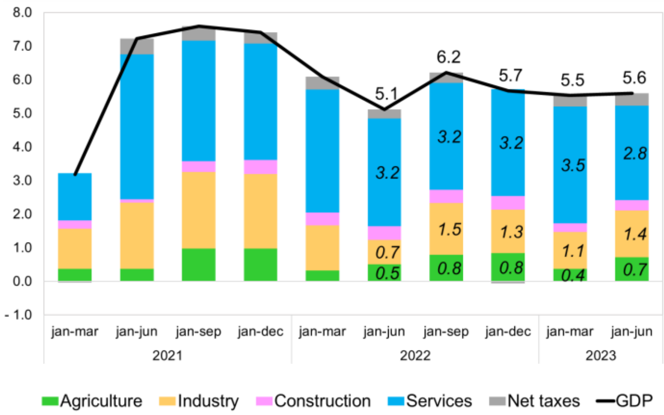
**Figure 1.1.8. FDI dynamics**




Source: Statistics Agency.

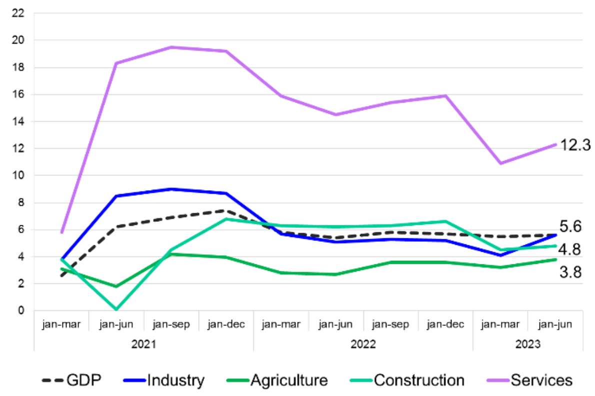
Industrial production increased by 5.6% (1.4 p.p. contribution to GDP growth), services sector rose by 12.3% (2.8 p.p.), a growth of agriculture amounted to 3.8% (0.7 p.p.) and the construction sector grew by 4.8% (0.3 p.p.) *(Figures 1.1.9-1.1.10).*

**Figure 1.1.9. Dynamics of real GDP,** *(y-o-y, in %)*




*Source: Statistics Agency.*

**Figure 1.1.10. Dynamics of GDP components,** *(y-o-y, in %)*




*Source: Statistics Agency.*

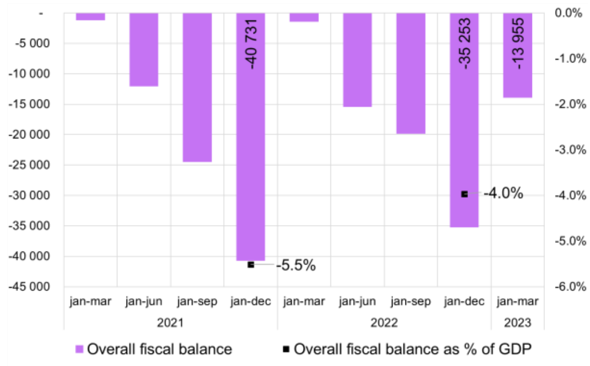
## 1.2. Fiscal conditions and expectations

According to the Ministry of Economy and Finance, in Q1 of the year, the **overall fiscal deficit** amounted to 13.9 trillion of soums *(Figure 1.2.1).*

High fiscal stimulus is one of the key drivers of economic and investment activity in the country.

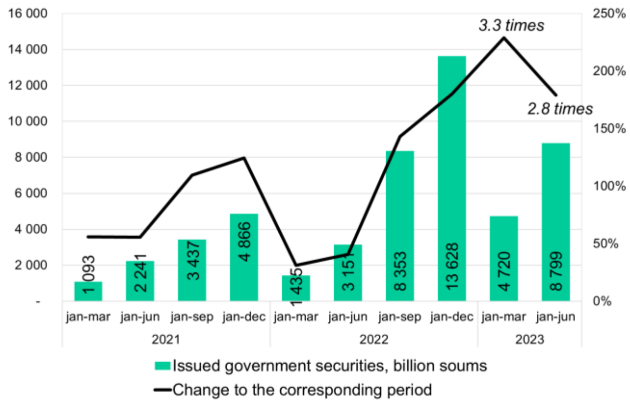
The elevated world interest rates reduce the share of external sources in financing the public deficit, and, at the same time, raise the attractiveness of the domestic debt. In the first half of the year, the Ministry of Economy and Finance issued **government bonds** totaling to 8.8 trillion of soums *(Figure 1.2.2).*

**Figure 1.2.1. Overall fiscal balance**




*Source: Statistics Agency.*

**Figure 1.2.2. Issuance of Government bonds** *(in bln. soums)*




*Source: Ministry of economy and finance.*

The favorable world market conditions for country's main exported goods (gold and copper) became one of the important sources of budget revenues, in the first half of the year.

The expansionary fiscal policy causes strong consumer demand in the economy and may be one of the key pro-inflationary factors.

Given the objectives of coordinated policy implementation between monetary and fiscal policies, it is crucial to ensure the budget deficit within the given parameters, in order to ensure the price stability in the medium-term perspective.

*Box 1.*

## Estimating the equilibrium (neutral) real interest rate for Uzbekistan

The inflation targeting regime assumes the main instrument of the Central Bank to be the policy rate that influences the aggregate demand in the economy and curbs the inflationary processes. By changing the policy rate, the Central Bank influences the formation of the interest rate in the interbank money market, thereby influencing the interest rates on government securities and banking services (deposits and loans). Interest rates on deposits and loans are one of the main factors determining the volume of aggregate demand through their influence on consumption, savings and investment decisions of economic entities.

The monetary policy stance of the Central Bank cannot be fully assessed based on the change in the policy rate. This is because the Central Bank’s policy rate is considered the nominal interest rate.

The difference between the real interest rate and its neutral indicates the stance of monetary policy. If the real interest rate is higher than its neutral, the monetary policy is **"tight"**, otherwise it is **"soft"**.

The real interest rate is the difference between the nominal interest rate and the expected inflation rate. The real interest rate refers to the real value of money in the economy.

The equilibrium (neutral) interest rate is a long-term real interest rate that stabilizes inflation at its target level and allows the economy to grow at its potential (in the absence of any economic shocks).

The factors of neutral rate are the productivity, demography, the development of financial markets in the economy, the global neutral interest rate, the country's risk premium, the trend of the real effective exchange rate and others.

The estimation of neutral rate is important for central banks and helps to determine its monetary policy stance. Usually, central banks provide analytical information on the dynamics of the neutral rate in their MPRs.

**Figure 1. Indicators forming the equilibrium real interest rate**

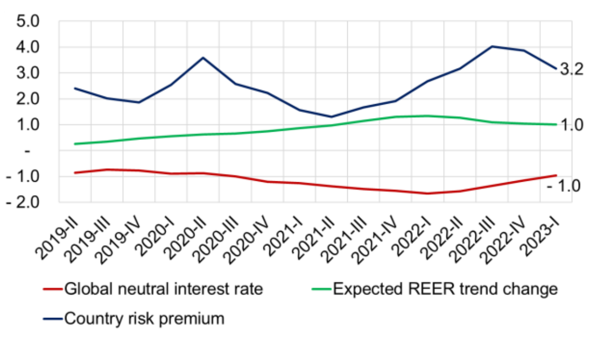
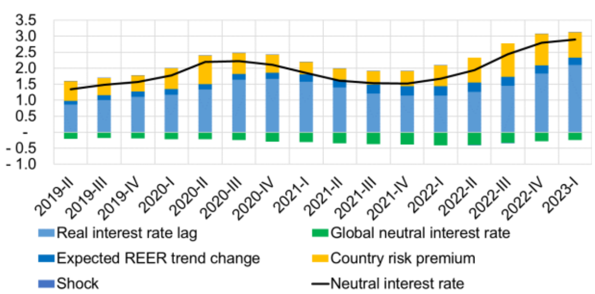



**Figure 2. Equilibrium real interest rate decomposition**




*Source: Based on the results of model analyses.*

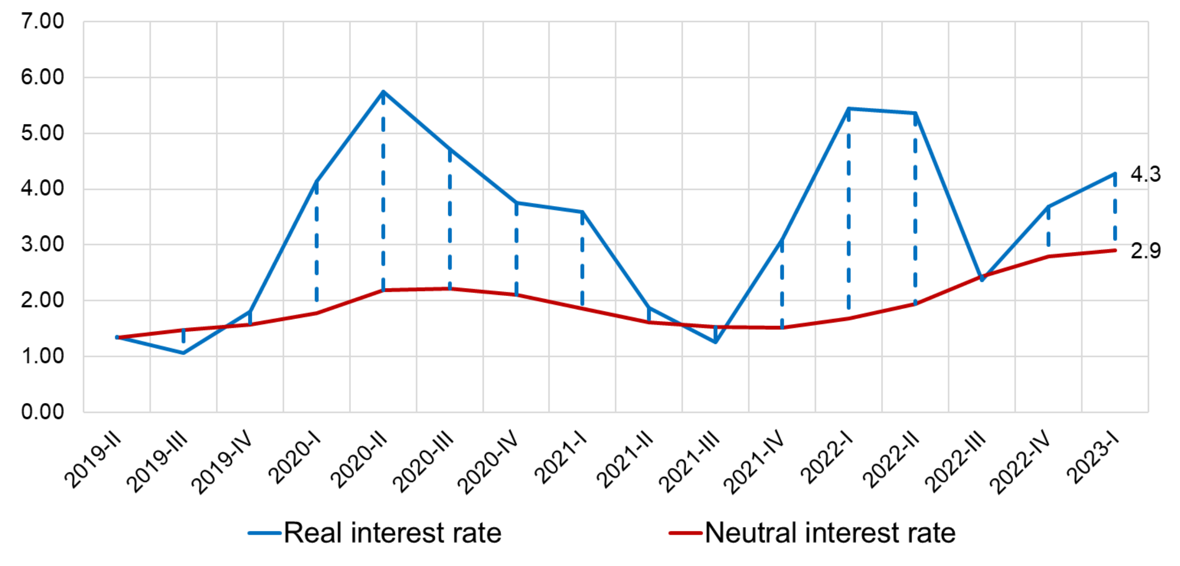
The neutral interest rate for the economy of Uzbekistan was estimated using a semi-structured model, the Quarterly Projection Model (QPM) of the Central Bank through the Kalman filter. This model is also known as the "gap" model. In the model, variables are linked through the dynamics of their deviation from long-term trends. Gaps and trends were estimated using a Kalman filter.

In the model, the main indicators that form the neutral interest rate are: the global neutral interest rate, the change in the real effective exchange rate against the US dollar, and the dynamics of the country's risk premium *(Figure 1).*

The neutral interest rate estimated for our economy using the model was 2.0% on average in 2019-2022 *(Figure 2).*

The increase in the risk premium for our economy from 2Q2022, the tightening of the monetary policy of the US Federal Reserve System (FRS) amid high global inflation, and the increase in the trend of the global neutral interest rate affected the growth of domestic neutral interest rate as well. As a result, the neutral interest rate in the economy increased to 2.9% in the 1Q2023.

**Figure 3. Real interest rate and neutral rate**




*Source: Based on the results of model analyses.*

As noted, in order to determine the monetary policy stance in the economy, it is necessary to compare the real interest rate and its neutral.

In the 1Q2023, the money market real interest rate was equal to 4.3%, and due to the positive difference of 1.4 p.p. compared to the neutral interest rate, "relatively tight" monetary conditions were ensured in the economy.

# II. INFLATION AND ITS FACTORS

*In Q2 of 2023, the **headline inflation demonstrated a downward trend**, having decreased to a single digit, largely due to the seasonal factors in agriculture, the last year's base effect, stable import and administratively regulated prices. Despite a slight decrease, the **core inflation, however, remained high** in this period.*

## 2.1. Inflation and its components

**Consumer price index declined** by 2.7 p.p. in Q2, falling **to 9%** in June *(Figure 2.1.1),* mainly due to decrease in food and non-food components of inflation (by 4.1 p.p. and 2.3 p.p., respectively). There was no significant decline in services (0.4 p.p.).

Moreover, the dynamics of the GDP deflator and the producer price index (PPI) indicate that inflationary pressures in the economy are easing. During this period, **the GDP deflator decreased to 11.9%,** and **PPI fell to 8.1%** *(Figure 2.1.2).*

These developments manifested in the reduction of the share of goods and services featuring price increase by more than 10%, in the consumer basket *(Figure 2.1.3).* However, in order to balance the supply and demand, the decrease of this share needs to be more significant. This, in turn, requires preservation for a certain period of time measures aimed at suppressing the inflationary pressures caused by monetary factors.

**Figure 2.1.1. Dynamics of headline inflation and its components** *(y-o-y, in %)*

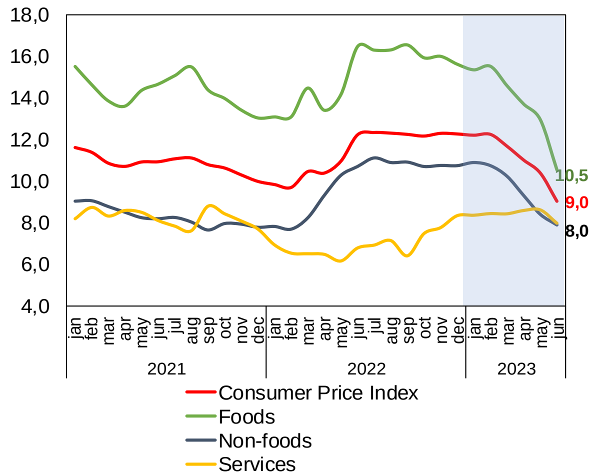
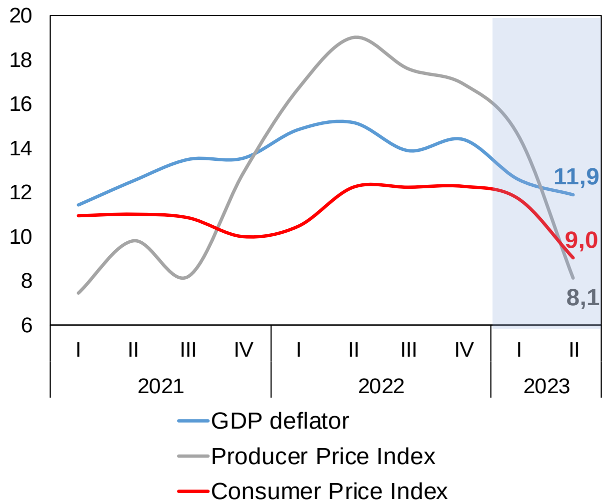



**Figure 2.1.2. Dynamics of GDP deflator and producer price index** *(y-o-y, in %)*




*Source: CBU calculations based on Statistics agency data.*

In Q2 of 2023, the main factors that contributed to the decrease in **annual food inflation** were a favorable harvest of fruits and vegetables and the fading effect of the increase in prices for sugar, vegetable oil and wheat flour in May-June last year *(Figure 2.1.4).*

On the other hand, during this period, there was an upward price pressures on meat, dairy products and rice due to unfavorable weather conditions *(Figure 2.1.5).*

A key disinflationary contributor to **non-food inflation** was the recovery of the supply chain recovery, as well as, the mitigation the increasing effects of import inflation due to relatively stable exchange rate.

There was no significant drop in **inflation of services** due to remained strong consumer demand and the price adjustment process.

There is a significant increase in the prices of market services (catering, hotel, health-care, recreation services) *(Figure 2.1.5).*

It should be noted that most of the administratively regulated prices (housing utilities, public transportation and education) have been unchanged in the past quarter. This, in turn, has been suppressing the overall services inflation and contributed the headline inflation to slow down.

Services inflation was mainly driven by strong demand and pass-through effect from goods inflation through the Balassa-Samuelson effect. Hence, in contrast to goods inflation, reducing services inflation requires a longer period of subdued demand.

**Figure 2.1.3. Dynamics of a share of goods and services with a price increase above 10% in the CPI basket**

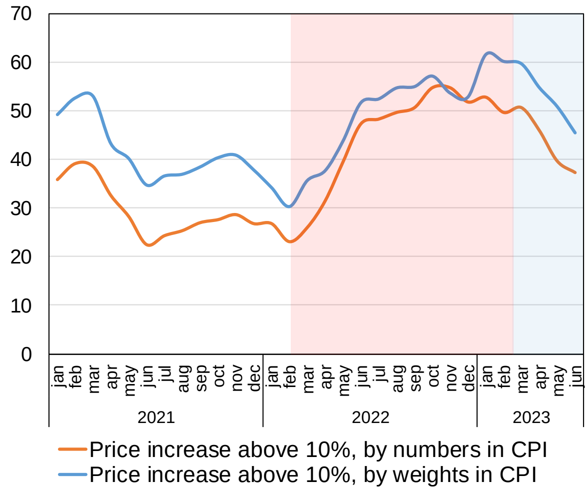
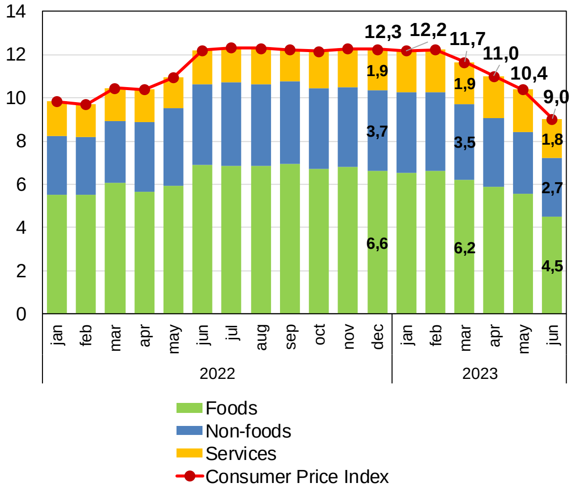
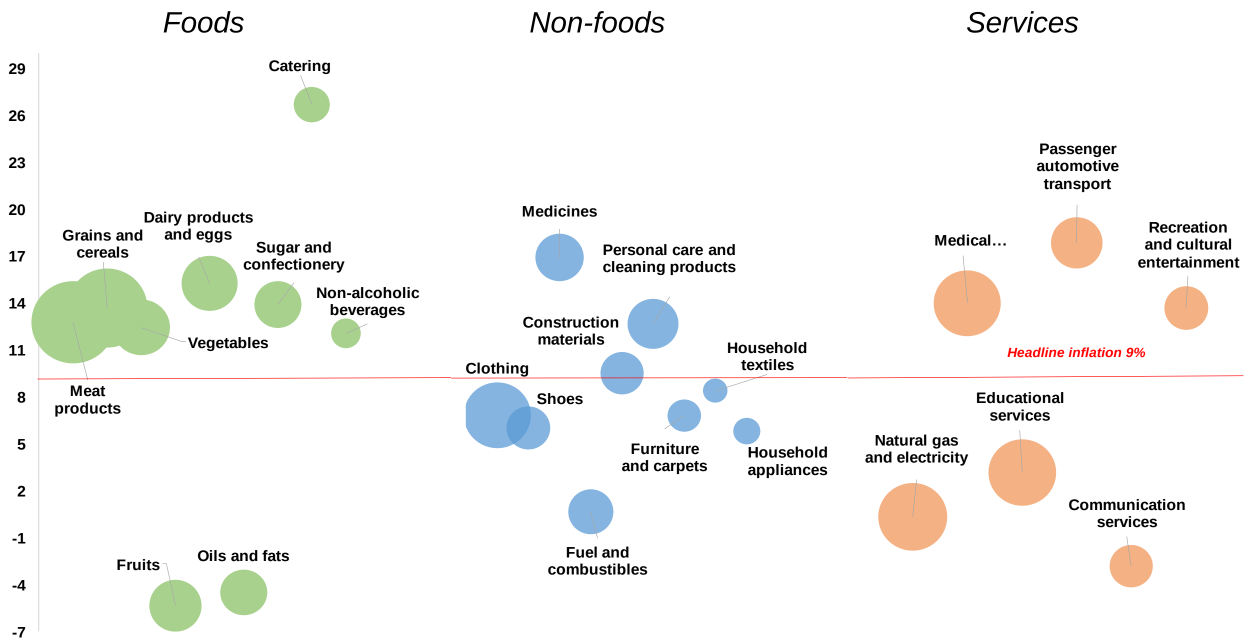



**Figure 2.1.4. Decomposition of CPI inflation** *(y-o-y, in %)*




*Source: CBU calculations based on Statistics agency's data.*

**Figure 2.1.5. Price changes of basic goods and services** *(y-o-y, in %)*




*Source: CBU calculations based on Statistics agency's data.*

Once the services prices rise, they don't tend to revert back to their previous levels. The stabilization of inflation in service sector, in the medium-term, requires structural changes.

In Q2 of 2023, **the core annual inflation** continued its downward trend, declining by 1.6 p.p. compared to March and decreasing to **11.3%** in June *(Figure 2.1.6).*

Lower core inflation, as mentioned above, was largely due to the last year`s high food price base, as well as, improved import logistics and a stable exchange rate.

However, the difference between core and headline inflation peaked in recent years due to a slower decline in core inflation compared to headline *(Figure 2.1.7).*

The fact that core inflation is higher than headline and that gap is widening indicates the influence of monetary factors on prices persists, despite the more favorable effect of seasonal and administrative factors.

Moreover, in recent months, there has not been downward dynamics in seasonally adjusted core inflation. In particular, the seasonally-adjusted monthly core inflation remained unchanged (0.9%) in March-June.

**Figure 2.1.6. Core inflation dynamics** *(y-o-y, in %)*

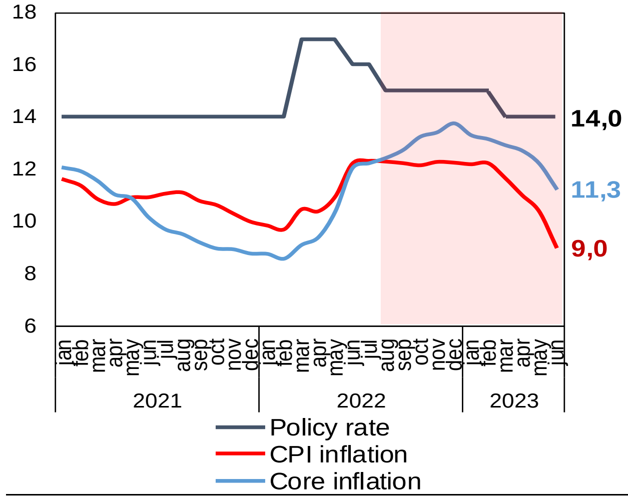
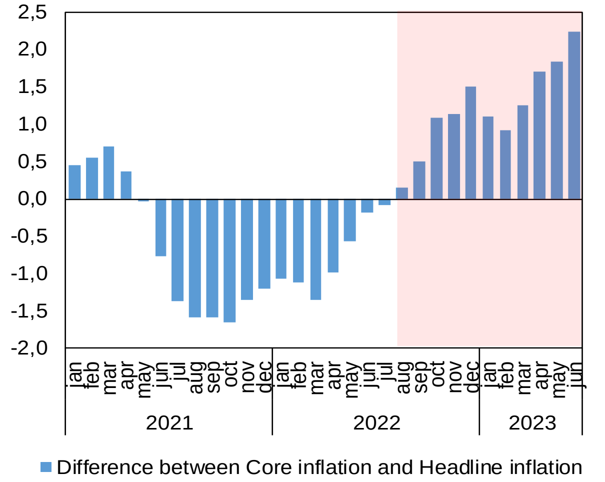



**Figure 2.1.7. Difference between Core inflation and Headline inflation** *(in p.p.)*




*Source: CBU calculations based on Statistics agency's data.*

Although the supply chain in the consumer market has rebounded, inflationary pressures remain in the economy that driven by strong demand. Therefore, monetary conditions should remain unchanged for a longer period in order to ensure a sustained slowdown in core inflation during a period of fiscal easing associated with a significant increase in government spending.

## 2.2. Internal factors of inflation and inflation expectations

Despite a significant decline in headline inflation, over the last quarter, the higher core inflation and its slower decline against projections mean that inflationary pressures in the economy are still strong and persistent, raising concerns about the continued impact of demand factors.

***Household income growth is one of the main drivers of strong consumption.*** In Q2 of 2023, the households' income, in particular, wages and highly liquid funds (funds on a bank cards) were growing *(Figures 2.2.1-2.2.2).*

The main drivers of household income growth were the increase of wages and pensions in April-May, the rebound in economic activity due to the increase in aggregate demand and the stable inflow of remittances from migrants.

***The real growth of wages is broad-based.*** Over the past three years, real wages have grown by of 6.5 percent, on average, across all sectors of the economy.

In Q1 of 2023, the real wages in housing and public catering, transportation, leisure and cultural activities services have increased significantly compared to the previous quarters *(Figure 2.2.3).*

On the other hand, this may indicate the insufficiency of high-skilled labor in these industries (relatively tight labor market).

**Figure 2.2.1. Average wage increase** *(cumulative index)*

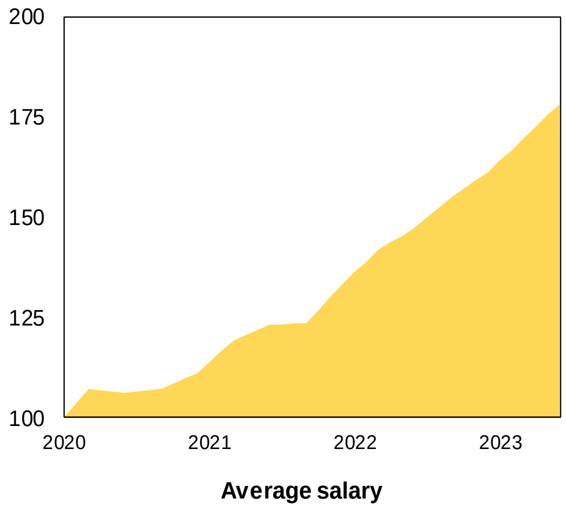
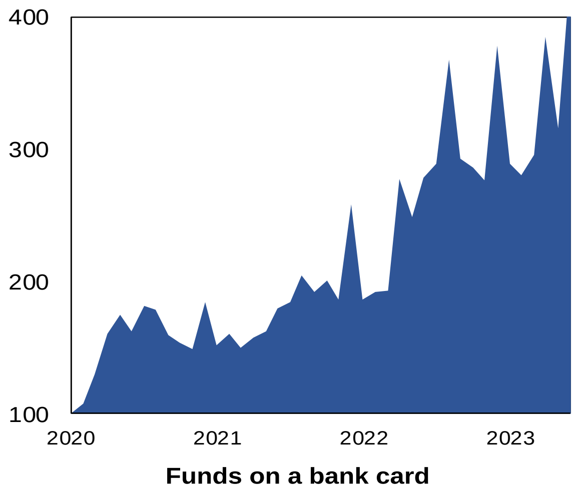



**Figure 2.2.2. Funds on bank cards** *(cumulative index)*




*Source: CBU calculations.*

Rising households' income encourages the demand in services, especially, in housing, food and transportation markets.

The real income growth, on the one hand, leads to an increase in the production costs through the wages. On the other hand, it stimulates demand in the economy.

High consumption demand also can be tracked by an increased amount of bank transactions, cash and payment terminal receipts. Continued growth in household consumption raises concerns about long-term inflationary pressures *(Figure 2.2.4).*

***Funds of non-residents are still at high levels.*** From the second half of 2022, the flow of non-residents to the country has started to increase significantly. This in turn, had mirrored in the amount of money on their bank accounts.

By the end of Q2, the volume of these funds have been almost the same as in the beginning of the year. However, the gradual conversion of these funds into the local currency creates additional liquid funds of non-residents in the national currency *(Figure 2.2.5).*

**Figure 2.2.3. Real growth of incomes by sectors** *(y-o-y, in %)*

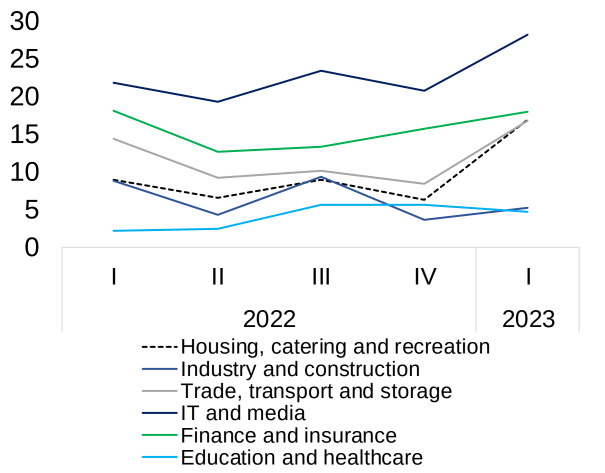
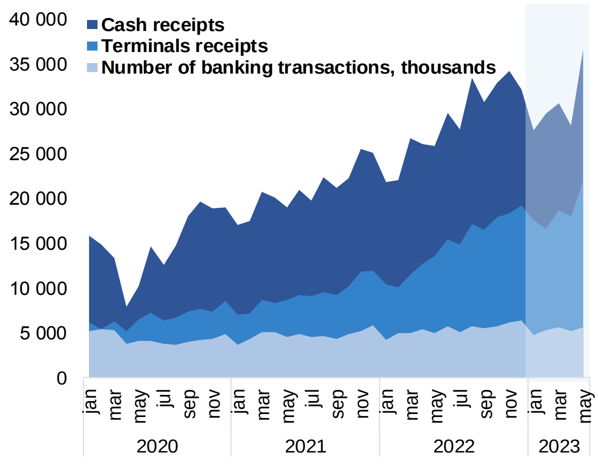



**Figure 2.2.4. Volume of cash and terminal inflows** *(in bln. soums)* **and the number of bank transactions**




*Source: CBU and Statistics Agency.*

The increase in consumer demand of non-residents is especially evident in the prices of services, in particular, rental services, restaurants and hotels, and recreational services *(Figure 2.2.6).*

**Consumer loans are increasing substantially.** In the first half of 2023, the volume of loans to households increased considerably. Significant growth rates were observed among auto loans, mortgage loans and microloans *(Figure 2.2.7).*

Household demand for bank loans could further increase due to confidence in future income growth and high inflation expectations.

**Figure 2.2.5. Dynamics of funds in the accounts of non-residents** *(in bln. soums)*

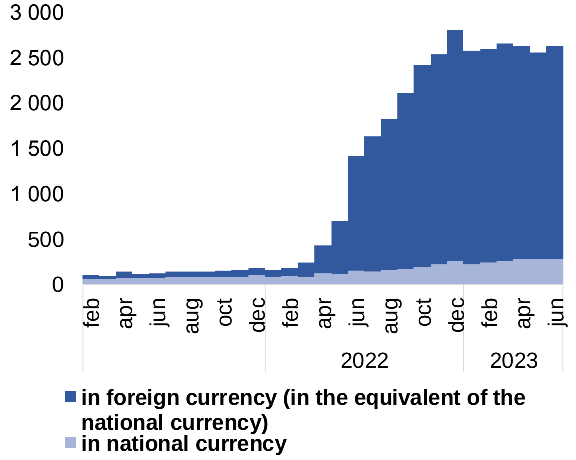
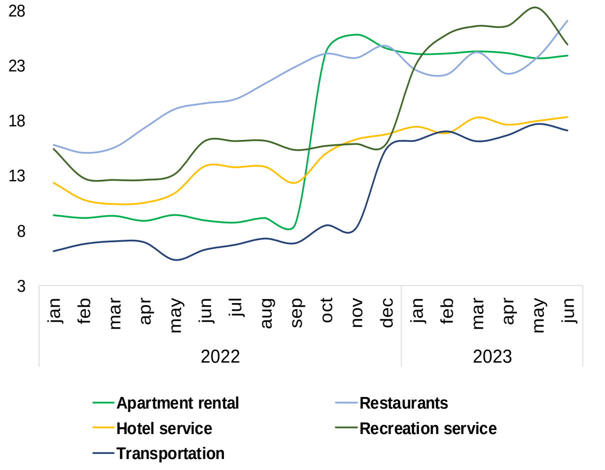



**Figure 2.2.6. Services with significant price increase** *(annual, in %)*




*Source: CBU and Statistics Agency.*

High demand for loans was also revealed from the households' survey. Majority of the respondents who plan to get a loan in the future are expecting to increase expenditures on house purchases, furniture, household appliances and cars.

**Figure 2.2.7. Changes in the volume of loans issued to individuals** *(Jan-May to Jan-May of the previous year, in %)*

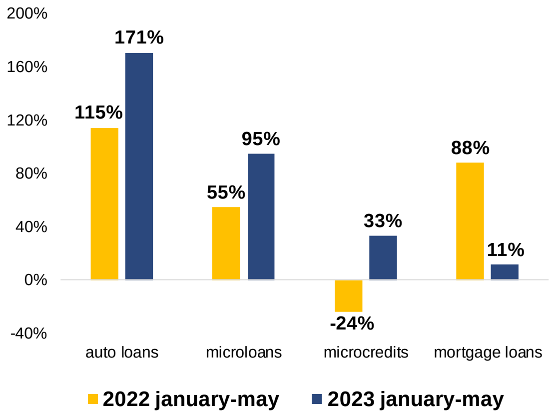
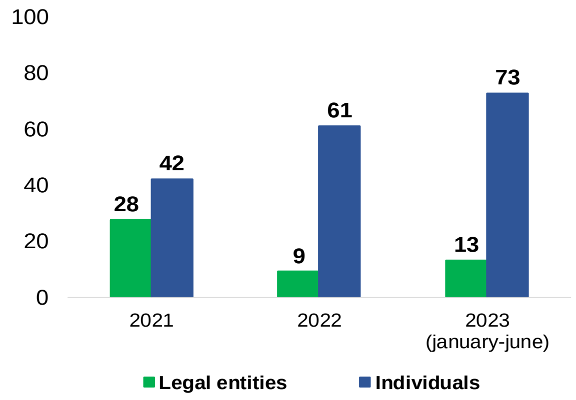



**Figure 2.2.8. Growth of loans issued to legal entities and individuals** *(annual, in %)*




*Source: CBU calculations.*

Loans to legal entities are seen as capital investments that stimulate additional supply in the economy. However, as the latest data shows, the growth of loans to legal entities lags behind loans to the households *(Figure 2.2.8).*

The fact that current loans mainly stimulate consumption that signals about demand-pull inflation, which will persist for a longer period of time.

**A larger than expected fiscal deficit has become one of the key drivers of high demand.** In a situation, where the effects of expansionary fiscal policy accumulated in previous years have not yet completely die out, higher than expected current spendings strengthen demand in the economy and may lead inflation to deviate from the forecasted corridor by the end of the year.

In this case, in order to ensure the inflation to be within the forecast corridor, in the medium-term, in addition to tighter monetary conditions, it is necessary to reduce the fiscal stimulus in the economy.

**Inflation expectations of households and business entities are decreasing.** They have declined by 1 p.p. to 13-13.5% compared to the previous quarter *(Figure 2.2.9).*

**Figure 2.2.9. Inflation expectations** *(annual, in %)*

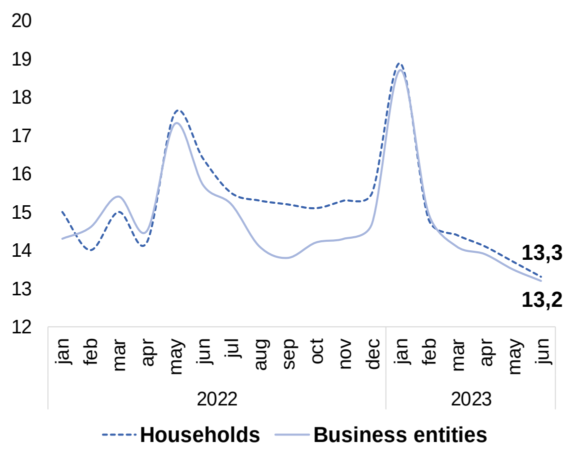



**Figure 2.2.10. Inflation expectations by types of firms** *(annual, in %)*

| Expectations | 2023 | | | | | |
|---|---|---|---|---|---|---|
| | jan | feb | mar | apr | may | jun |
| Production | 15,0 | 14,8 | 14,4 | 13,6 | 12,3 | 12,3 |
| Construction | 17,3 | 14,0 | 14,6 | 14,5 | 13,1 | 12,6 |
| Agriculture | 17,1 | 13,3 | 13,5 | 14,0 | 13,3 | 12,9 |
| Cafe-restaurants | 18,4 | 15,8 | 13,2 | 14,2 | 14,2 | 14,9 |
| Transportation | 14,7 | 14,2 | 17,9 | 12,9 | 13,2 | 14,2 |
| Science/Education | 15,1 | 16,4 | 14,3 | 14,4 | 13,4 | 14,0 |
| Health care | 16,8 | 14,2 | 14,4 | 15,8 | 13,8 | 11,4 |
| Culture/art | 14,2 | 14,5 | 14,6 | 12,9 | 14,0 | 13,5 |
| Software | 14,6 | 16,4 | 15,0 | 14,8 | 12,7 | 13,3 |
| Trade | 17,6 | 14,6 | 13,4 | 13,6 | 13,9 | 12,4 |
| Craftsmanship | 18,3 | 16,5 | 13,9 | 12,0 | 11,1 | 13,2 |
| Marketing/consulting | 16,6 | 16,6 | 13,3 | 13,9 | 14,4 | 13,4 |

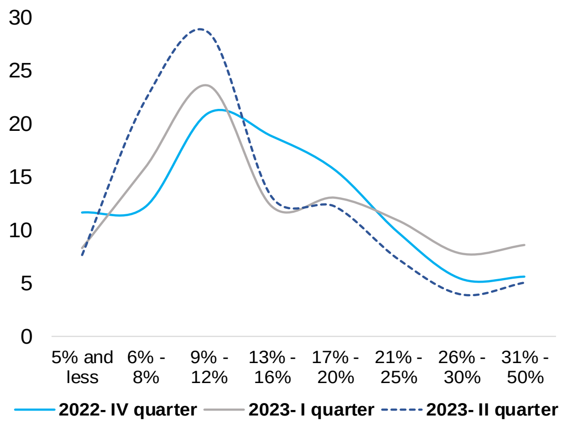
*Source: CBU calculations.*

The deviation of respondents' answers in the survey has narrowed compared to previous periods. Today, they are around 9-12%, which proves that the level of uncertainty about inflation goes down in the future *(Figures 2.2.11 and 2.2.12).*

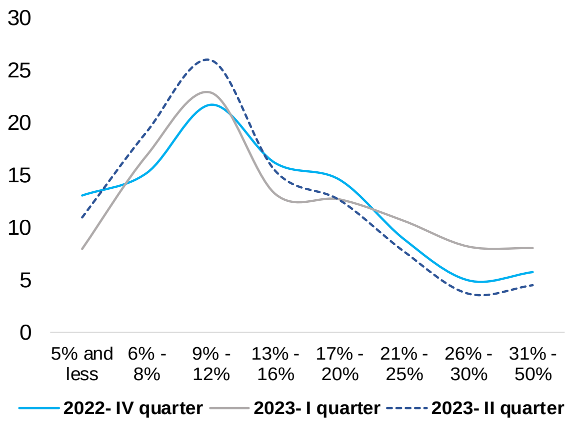
The main factors contributing to the decrease of inflation expectations among households are stable food, fuel and energy prices, and expectations that this will continue in the future.

The decrease in inflation expectations among business entities is positively influenced by the improvement in expectations about the supply of raw materials, as well as the increase in fuel and energy supply.

**2.2.11-расм. Distribution of Inflation expectations of households** *(share of respondents, in %)*




**2.2.12-расм. Distribution of Inflation expectations of firms** *(share of respondents, in %)*




*Source: CBU calculations.*

**Figure 2.2.13. Major factors of inflation expectations of households** *(share of respondents, in %)*

| | 2023 | | | | | |
|---|---|---|---|---|---|---|
| | jan | feb | mar | apr | may | jun |
| Exchange rate fluctuations | 42 | 46 | 51 | 45 | 47 | 50 |
| Increase in wages and benefits | 24 | 24 | 38 | 50 | 36 | 40 |
| Existence of monopolies in the market | 35 | 37 | 39 | 40 | 36 | 38 |
| Price increase due to the monopoly environment | 37 | 38 | 18 | 40 | 36 | 34 |
| Price increase in fuel and energy resources | 47 | 45 | 36 | 31 | 32 | 33 |
| Decline in harvesting due to climate change | 27 | 25 | 27 | 33 | 24 | 26 |

**Figure 2.2.14. Major factors of inflation expectations of business entities** *(share of respondents, in %)*

| | 2023 | | | | | |
|---|---|---|---|---|---|---|
| | jan | feb | mar | apr | may | jun |
| Exchange rate fluctuations | 44 | 48 | 50 | 43 | 44 | 55 |
| Increase in wages and benefits | 21 | 25 | 34 | 41 | 36 | 39 |
| Price increase in fuel and energy resources | 38 | 46 | 33 | 29 | 30 | 32 |
| Increase in transport costs | 38 | 46 | 33 | 29 | 30 | 26 |
| Decline in harvesting due to climate change | 20 | 17 | 18 | 21 | 21 | 21 |
| Interruptions in the supply of raw materials from abroad | 17 | 20 | 18 | 19 | 17 | 18 |

*Source: CBU calculations.*

At the same time, concerns about future exchange rate dynamics, higher wages and social benefits and the negative consequences of climate change have increased.

Rising inflation expectations within the cafe and restaurant segments and transport services are explained by continued strong consumer demand in these sectors due to the higher incomes and slower adjustment of supply to demand.

*Box 2.*

## Wholesale price indices dynamics

Alternative indicators of price change, such as the Kuyluk price index[1] and the Commodity exchange price index[2], have been developed by the Central Bank for the purpose of comprehensive and in-depth analysis of inflationary processes in the economy.

According to the observations, at the end of the Q2 of 2023, the **Kuyluk price index** was 79.3 points *(Figure 1)*. The wholesale price of food products included in this index on average decreased by 21% compared to the base period (January 2022) and by 40% compared to the Q1. The sharp decline compared to the previous quarter is explained by high seasonality of these products, including ripening of the new harvest of fruits and vegetables.

***Figure 1. Kuyluk Price Index***
*(January 2022 = 100)*

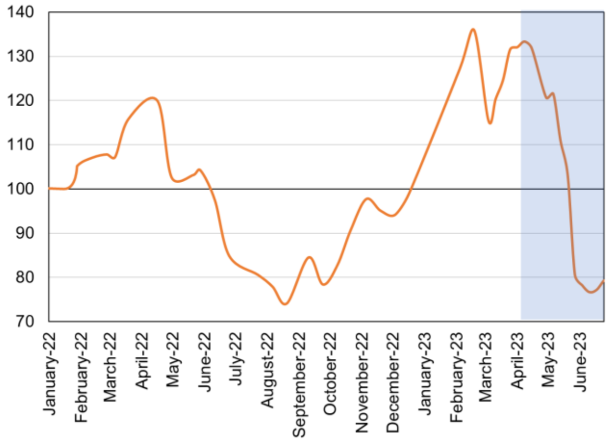
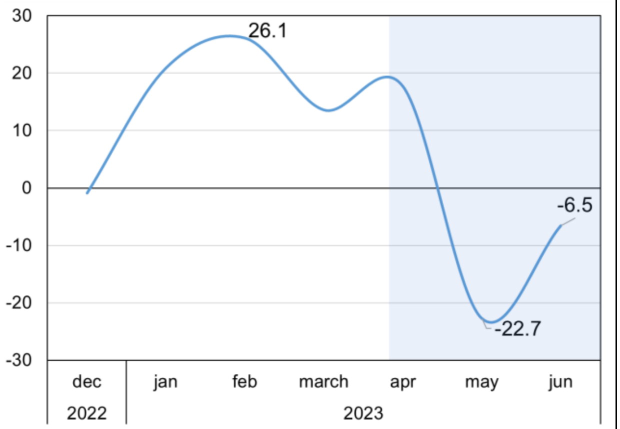



***Figure 2. Kuyluk Price Index***
*(y-o-y, in %)*




*Source: Central Bank observations.*

The annual change in the Kuyluk price index showed a sharp decline in May after a significant increase in the Q1 due to the anomalous cold weather. This is mainly due to the decrease in the prices of seasonal agricultural products such as potatoes, cabbage, cucumbers and apples *(Figure 2).* The sharp decrease in the price of these fruits and vegetables was due to the increase in the volume of seasonal supply and the expansion of the import geography that became cheaper compared to May-June last year (potatoes - 11%, cabbage - 27%, cucumbers - 37%, and apples - 51%).

However, following a sharp decline in wholesale prices, a price increase in the selected products from the last week of June, at the same time, water shortage concerns in the region may put upward pressures on the headline inflation by the year end, as these prices might return to the levels recorded in the previous winter.

To reduce this high seasonality, it is important to expand seasonal food storage infrastructures and increase their processing capacity.

In June, **the commodity exchange price index** was decreased by 3.4% and reached 98 points compared to the Q1. Since the beginning of 2023, the prices of raw materials increased by 1.1%, but, decreased by 9.2% on an annual basis *(Figure 3)*.

In particular, while the decrease in the prices of sugar (-14%), technical cotton seed (-14%), cotton fiber (-18%), gasoline (-20%) and cottonseed oil (-49%) contributed considerably to the decline in the annual index of commodity exchange prices in Q2 of 2023, the increase in the prices of cottonseed meal (7%), animal feed (27%), cement (5%) and copper cathode (4%) had an upward pressure to the index.

Sugar price formation is highly sensitive to seasonality (price increases in the world market), in which the price of the product increased from February to May and then decreased.

***Figure 3. Commodity Exchange Price Index*** *(January 2022 = 100)*

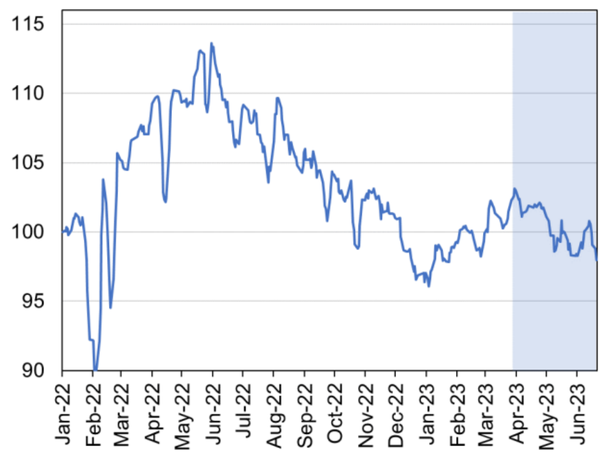
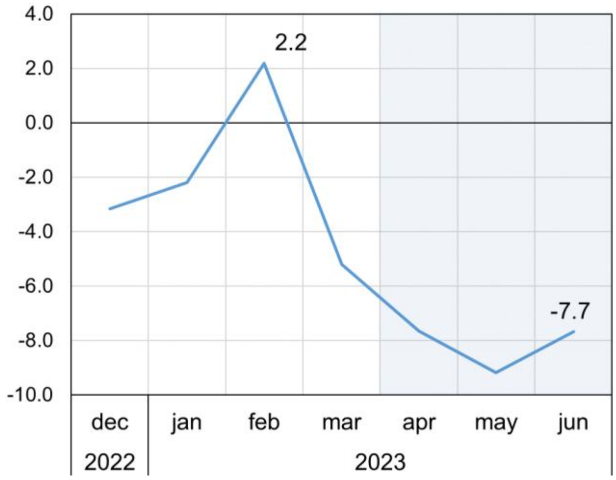



***Figure 4. Commodity Exchange Price Index*** *(y-o-y, in %)*




*Source: Central Bank calculations based on Commodity Exchange data.*

Also, wheat prices fell in Q1 and remained relatively stable in Q2. In February-May, the cotton fiber and seed became more expensive. The price of animal feed, as well as, cement from construction materials category also increased in April-June, due to the decrease in seasonal supply and increase in the seasonal demand since March.

In the future, the main priority in ensuring the price stability in the commodity exchange market will be measures to bring manufacturing enterprises to full capacity and assure an adequate supply of the main consumer goods in daily trade.

[1] Kuyluk Price Index - reflects the dynamics of wholesale prices for agricultural products (potatoes, onions, carrots, cabbage, tomatoes, cucumbers, chicken meat, eggs, rice, apples, bananas and lemons) at the Kuyluk farmers' market.

[2] Commodity exchange price index - main consumer goods and construction materials (wheat and wheat flour, sugar, cotton seeds and cotton fiber, gasoline (AI 80, AI 91, AI 92, AI 95), cottonseed oil, cotton) on the Commodity Exchange of Uzbekistan, indicates the dynamics of sales price.

*Box 3.*

## Price changes based on Central bank observations

In June, **the alternative consumer price index (ACPI),** [3]which is calculated based on the prices from online retails increased by 0.1% and reached to 9.3% on annual. At the same time, within ACPI, food products grew by 15.7%, non-food products by 1.2%, and services by 6.8%.

**Figure 1. Alternative consumer price index**
*(annual%)*

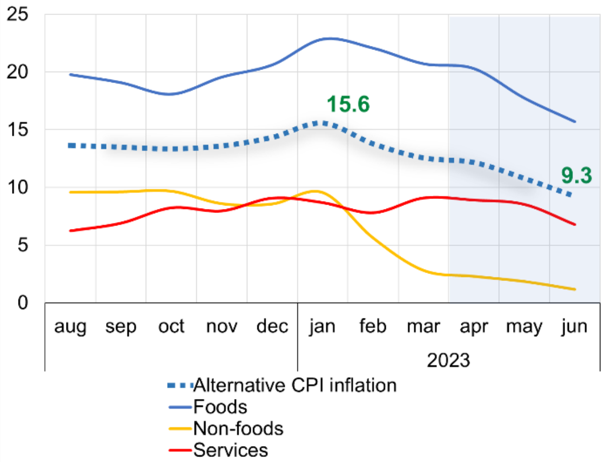
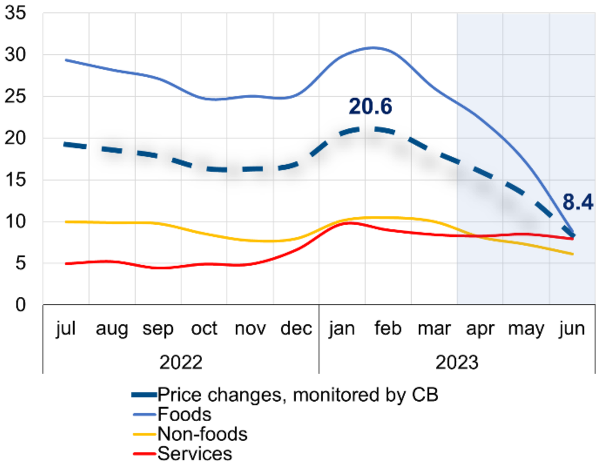



**Figure 2. Inflation dynamics based on Central Bank observations**
*(annual%)*




*Source: Central Bank observations.*

According to **the weekly monitoring**[4] conducted by the regional headquarters of Central Bank in the traditional markets, in June, a significant (up to -1.8%) decline of price was observed, at the same time, the annual rate was dropped to 8.4%. As part, food products slowed to 8.8%, non-food products - 6.1%, and services - 7.9%.

In Q2, the food inflation began to decelerate due to the vanishing of inflationary pressures related to the supply issues since the year beginning and the decrease of prices of fruits and vegetables due to the seasonal supply increase. In addition, the fading out of the high base effect from the previous year contributed to the stabilization of both price indices.

[3] The Online Price Monitoring System – a system conducted by the Central Bank for prompt tracking and monitoring of consumer price changes from Internet sources without a human factor, started from August 2021. Currently, prices are monitored weekly for 262 types of goods and services that most consumed by the households, which is 72% of the CPI basket.

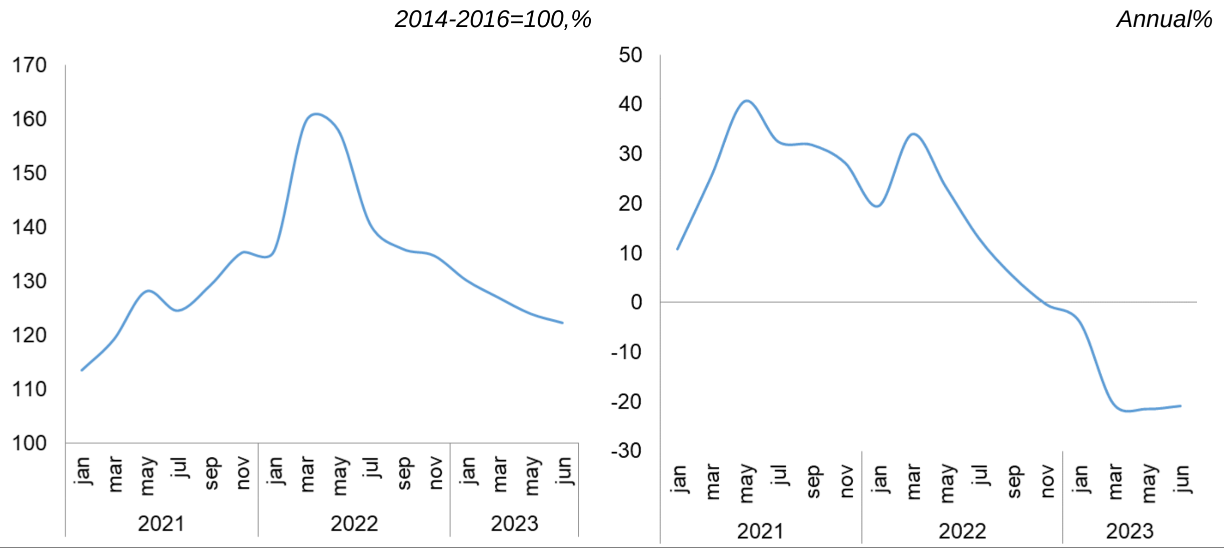
[4] Weekly monitoring - since January 2018, observations conducted by the regional headquarters of the Central Bank to weekly monitor the price changes for 114 types of the consumer goods in the traditional markets (coverage of the total CPI basket is 55%).

*Box 4.*

## World food price dynamics

According to the FAO, in June, the **global food price index** decreased by 1.4% on month-on-month and 20.9% on year-on-year. Although, the price of meat and sugar increased, the price of grain, oil and dairy products decreased significantly, which contributed to the decline of the overall index.

**Figure 1. World food price dynamics** *(FAO index)*




*Source: FAO*

In June, **grain products** fell by 23.9% on year-on-year. A decrease in prices was observed in all major cereals.

World wheat prices are falling due to the beginning of grain harvesting in the Northern Hemisphere countries, a bumper harvest in Russia and a reduction in the tax on wheat exports, as well as improved planting conditions in the United States.

Corn prices fell for the fifth month in a row. Continued seasonal harvests in Brazil and Argentina are causing increased corn supply and lower prices.

Falling wheat and corn prices, in turn, had a downward effect on barley and millet prices. Also, as a result of Pakistan's efforts to increase rice exports, there was a decrease in the price of rice.

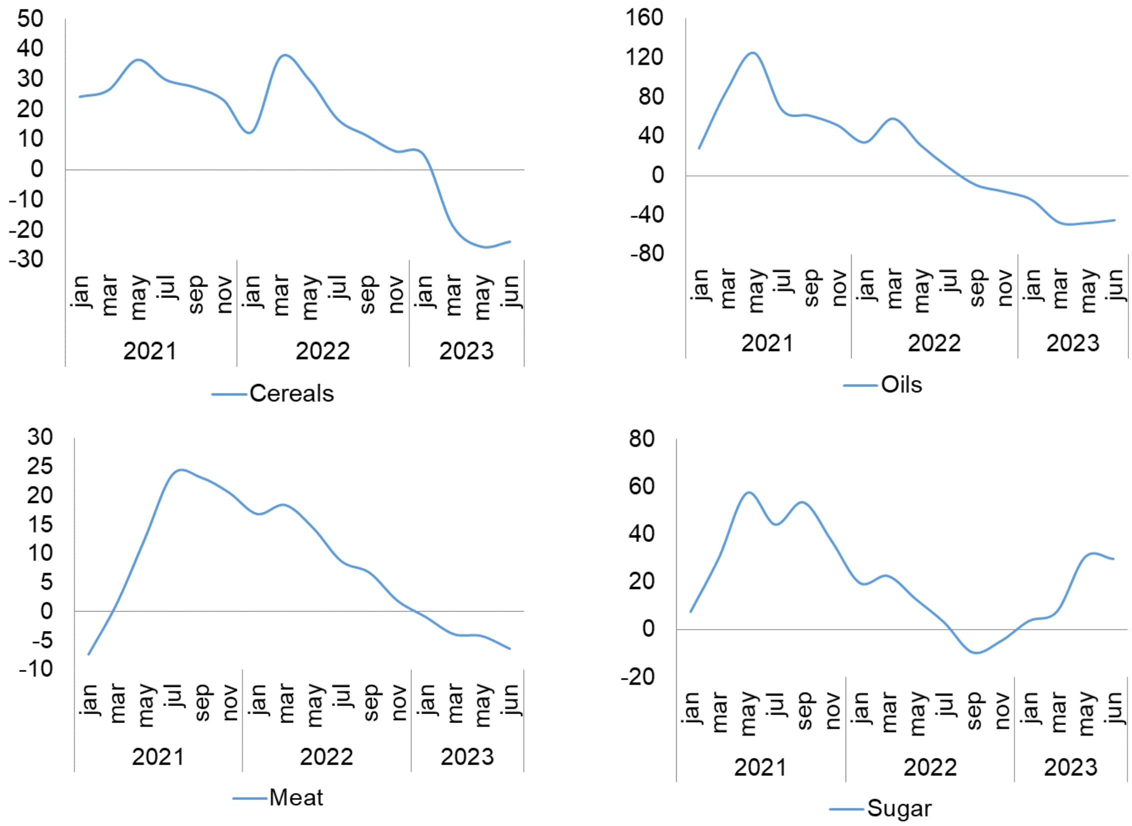
**Oil products** decreased by 45.3% on year-on-year. This is explained by the fact that the prices of palm and sunflower oil have decreased significantly, despite the increase in world prices of soy and rapeseed oil.

Increased production volumes in leading palm oil producing countries and stabilization of global demand have had a downward effect on prices. World sunflower oil prices also continued to fall due to the large export stocks.

The **price of meat** decreased by 6.4% compared to the same period last year. Despite the increase in international quotations of poultry meat, the decrease in the prices of beef and mutton caused a decrease in the overall index.

The outbreak of avian influenza has caused problems related to the supply of poultry meat in East Asian countries. This is in turn, increased import demand and prices for poultry meat.

**Figure 2. Changes in the prices of the main food products in the world market**
*(annual%)*




*Source: FAO*

An increase in the volume of beef exports from Australia had a downward effect on the price of beef and a higher volume of deliveries from Oceania had a downward effect on the price of mutton.

In June, the **price of sugar** decreased by 3.2% compared to the previous month. This is the first decline after four consecutive months of growth. However, the annual growth of sugar was significantly higher and amounted to 29.7%.

The fall in global sugar prices in June is mainly explained by the positive expectations regarding the sugar cane harvest in Brazil and low import demand in the world market (especially from China).

However, the negative effects of the El Niño [5]event on current and future harvests, as well as, expectations of strengthening of the Brazilian real against the US dollar, might maintain upward pressure on sugar price.

According to the analyzes of the US Department of Agriculture (USDA), products whose prices rose steadily in 2022 may continue to rise in 2023.

For instance, the price of poultry meat (3.0%), other meat products (4.6%), dairy products (3.9%), fat products (11.0%), fruits and vegetables (2.5%), sugar and sweets (8.9%), cereals and bakery products (9.1%), soft drinks (8.6%) and other food products (7.9%) is forecasted to rise. Analysis shows the possibility of price increases in other products such as eggs - 6.2%, beef - 1.6%, fresh fruits - 0.9%, vegetables - 1.2%.

[5] The El Niño event is a phenomenon associated with the warming of the waters of the eastern equatorial Pacific Ocean, which occurs once every 3-8 years and lasts up to 8-10 months, and its consequences affect globally.

*Box 5.*

## Analysis of perceived inflation of households

According to the results of the survey conducted by the Central Bank, the perceived inflation by the households decreased gradually during the Q2 of 2023 and reached 12.9% in June (13.9% in March).

Although, the CPI fell for the fifth month in a row, the perceived inflation remains high. It is also observed that the% of those who perceive the inflation at a higher level than the CPI is increasing.

The reason for this phenomenon is that the perceived inflation was mainly formed due to the influence of the prices of food products consumed daily. This can also be seen in high correlation between perceived inflation and food inflation of the CPI *(Figure 1).*

**Figure 1. Perceived inflation dynamics** *(annual%)*

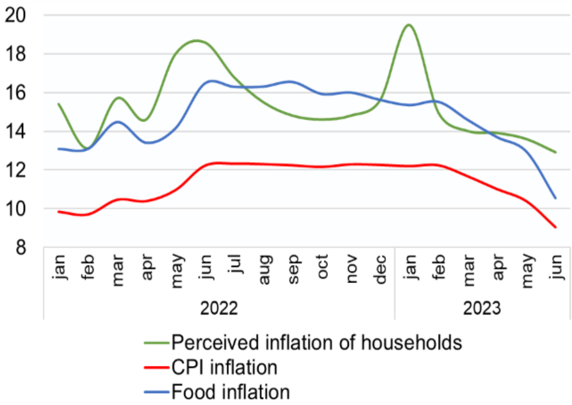
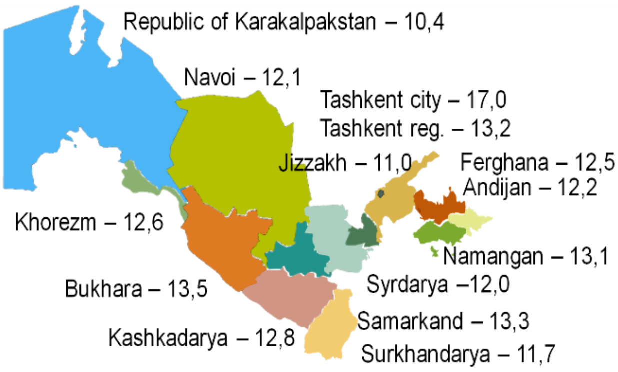



**Figure 2. Perceived inflation by regions** *(June, in %)*




*Source: Central Bank calculations.*

According to the results of the regional analysis, a downward trend of perceived inflation is observed in most regions. However, at the end of the Q2, the increase in perceived inflation was noted in Samarkand and Tashkent regions, as well as, Tashkent city. As of June, the perceived inflation in the capital was 17.0%, reflecting the highest level among the regions *(Figure 2).*

During the Q2 of 2023, the perceived inflation of manufacturing firms increased and in June it is the highest indicator among other sectors. Also, in harvest season, respondents from the agriculture sectors mentioned that the price growth is slowing *(Figure 4)*.

In this period, concerns of households on the price increase of sugar, confectionery, meat, milk and construction materials have risen. On the contrary, the% of respondents who reported an increase in the price of fruits, vegetables and transport services declined *(Figure 3)*.

In the formation of perceived inflation, the price shifts cause the decrease of purchasing power, consumers focus more on goods that have become more expensive than those whose prices have fallen. On the other hand, the level of perceived inflation of the households become important in the formation of their inflation expectations.

**Figure 3. Goods and services whose prices have increased significantly** *(% of total respondents)*

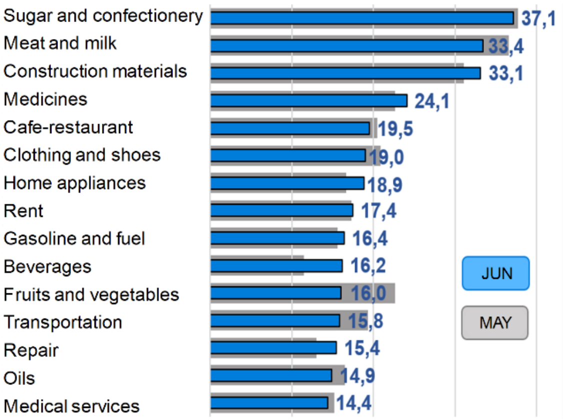
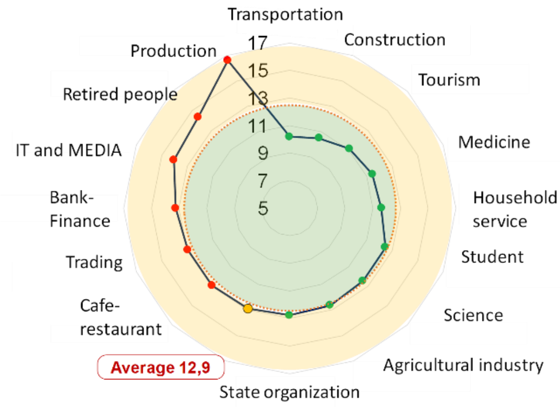



**Figure 4. Perceived inflation across sectors** *(in %)*




*Source: Central Bank calculations.*

One of the main steps to reduce the perceived inflation in anchoring the inflation expectations of the households are the stabilization of the prices of food products consumed daily.

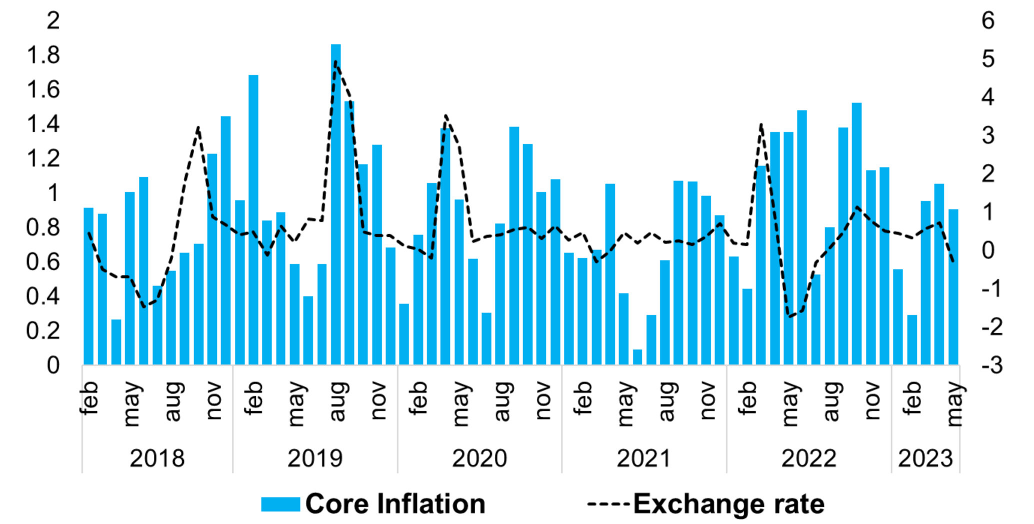
*Box 6.*

### Quantitative assessment of the impact of exchange rate fluctuations on core inflation

Changes in the exchange rate affect the price level directly, through the prices of consumer products imported from abroad, and indirectly, through the prices of imported raw materials, technology and spare parts used in domestic production, as well as through the channels of expectations about changes in the exchange rate.

The dynamics of exchange rate changes and core inflation show us that there is a high correlation between these variables *(Figure 1).*

**Figure 1. Core inflation and exchange rate dynamics** *(monthly, in %)*




*Source: Central Bank calculations.*

To quantify this relationship between exchange rate changes and core inflation, in the analysis a distributed lag auto regression model (ARDL) [6]is used.

**In the model, core inflation was estimated by the following equation:**

$$\Delta CPI_t^{core} = \alpha_0 + \sum_{i=1}^{n}\alpha_i \Delta CPI_{t-i}^{core} + \sum_{i=0}^{n}\beta_i \Delta EXR_{t-i} + \sum_{i=0}^{n}\delta_i \Delta REM_{t-i} + \sum_{i=0}^{n}\gamma_i \Delta I\_RATE_{t-i} + \sum_{i=0}^{n}\eta_i \Delta IM\_INDX_{t-i} +$$

$$+\phi_1 \Delta CPI_{t-1}^{core} + \phi_2 \Delta EXR_{t-1} + \phi_3 \Delta REM_{t-1} + \phi_4 \Delta I\_RATE_{t-1} + \phi_5 \Delta IM\_INDX_{t-1} + \varepsilon_t.$$

Here, $\alpha, \beta, \delta, \gamma, \eta,$ – coefficients indicating short-term dependence;

$\phi_1, \phi_2, \phi_3, \phi_4, \phi_5,$ – coefficients indicating long-term correlation;

$\Delta$ – first-order difference (compared to last month);

$\varepsilon_t$ – error term;

*i, n = 4,* endogenous and exogenous variables take values up to 4 periods;

$CPI_{t-i}^{core}$ – core inflation;

$EXR_{t-i}$ – exchange rate (*in the form of a natural logarithm*);

$REM_{t-i}$ – remittance *(in the form of a natural logarithm)*;

$I_{RATE}{}_{t-i}$ – money market rate (*in the form of a natural logarithm)*;

$IM\_INDX_{t-i}$ – import index *(in the form of a natural logarithm)*.

The above model equation was also used for core foods, core non-foods and core services. In the analysis, the variables were estimated using data for the period from January 2019 to May 2023. At first, variables were transformed into indices, then first differenced in natural logarithm form.

Also, equations for assessing the impact of the exchange rate and other variables on core inflation and its components were tested for sustainability requirements and obtained positive results.

**Model results**

The model found that a 1% exchange rate depreciation would increase core inflation by 0.11 p.p. in the first three months.

**Figure 2. Short-term and long-term effects of 1% exchange rate depreciation on core inflation and its components** *(p.p.)*

| Indicators | | Short-term effect | Long-term effect |
|---|---|---|---|
| ***Core inflation*** | | ***0.11*** | ***0.17*** |
| **Core** | *Foods* | *0.25* | *0.33* |
| | *Non-foods* | *0.07* | *0.14* |
| | *Services* | *0.09* | *0.12* |

*Source: Central Bank calculations.*

According to the results of the model on the components of core inflation, the short-term effects of the exchange rate are the highest on core foods at 0.25 p.p., while the effects on core non-foods and services are 0.07 and 0.09 p.p. respectively *(Figure 2).*

Also, in the long run, 1% depreciation of the exchange rate could increase core inflation by 0.17 p.p., in the meantime, a 10% depreciation of the exchange rate over the year could increase core inflation by 1.7 p.p.

Analyzing this impact by components of core inflation, the highest impact was seen in food prices, which increased by 0.33 p.p. The long-term inflationary effect of exchange rate fluctuations on the main non-foods and services are relatively smaller, at 0.14 p.p. and 0.12 p.p. respectively.

[6] The autoregressive distributed lag (ARDL) model is a model that estimates the impact of the values of the endogenous variable in the previous periods and the values of the exogenous variable in the current and previous periods.

# III. EXTERNAL ECONOMIC CONDITIONS

*Uncertainty remains high despite an improvement in global economic activity in Q2 relative to the beginning of the year. Global aggregate demand growth is projected to moderate in the coming quarters due to tighter financial conditions and a less-than-expected recovery in China.*

*Global consumer and producer inflation are slowing as world commodity prices decline, while core inflation is projected to remain high in most countries because of persistent fundamental factors.*

*Although the impact of economic activity in trading partner countries on the domestic economy is positive to some extent, high fluctuations in partners' national currencies could lead to a surge in uncertainty in the medium term.*

## 3.1. Global economic environment

In Q2, the global economy developed in multiple directions. The impact of the Chinese economy on the global scale was not as robust, primarily due to subdued consumer activity and weakening external demand. The Eurozone experienced zero growth in the first half of the year, largely attributed to reduced government spending and lower real incomes among the population. In contrast, the US witnessed higher-than-expected private spending.

Global economic activity is primarily bolstered by the services sector, while industrial production has continued to underperform since the beginning of the year *(Figure 3.1.1)*.

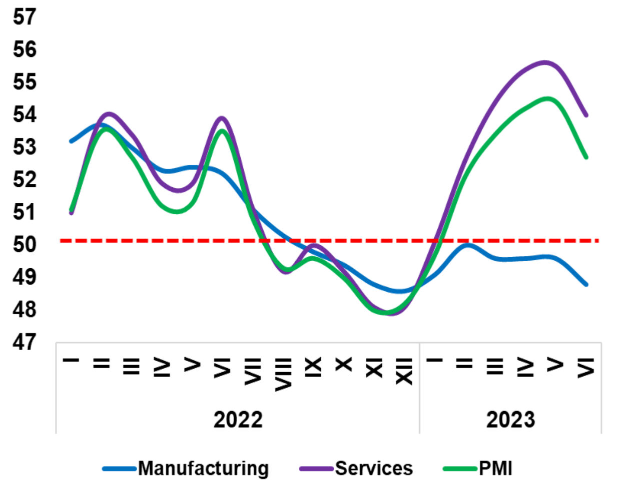
Inflation continued to decline as a result of the normalization of energy and food prices, the high base effect, and a seasonal increase in the supply of goods and services *(Figure 3.1.2)*.

Core inflation, on the other hand, remains high due to sustained strong demand, an unbalanced labor market, rising wages, and service prices.

Most central banks still expect inflation to remain elevated for an extended period.

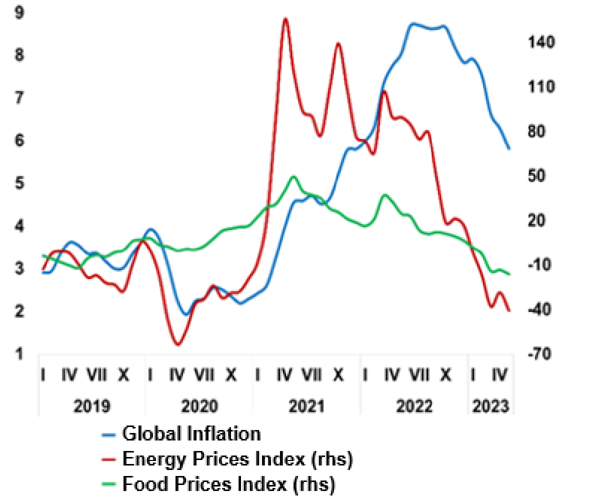
Meanwhile, the tightening of monetary policies by central banks in many developing countries is nearing its end. In contrast, monetary regulators in developed countries are signaling to market participants about further tightening of monetary conditions, including additional increases in key interest rates *(Figure 3.1.3)*.

**Figure 3.1.1. Purchasing Managers' Index (PMI)** *(p.)*




Source: spglobal.com.

**Figure 3.1.2. Global inflation, food prices, energy price index** *(in %)*

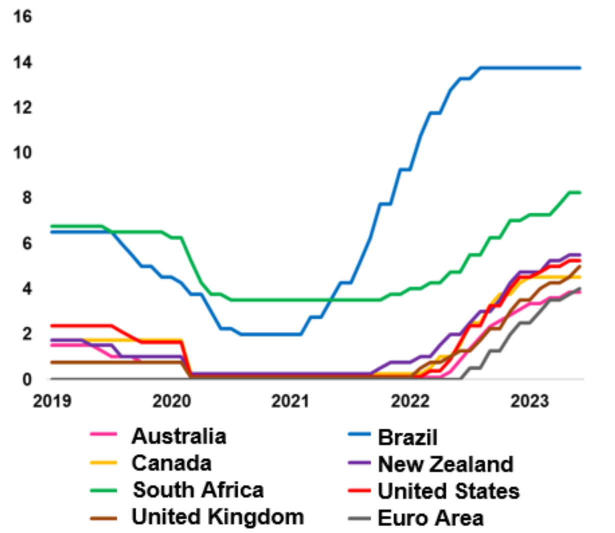



Source: CBU calculations, World Bank.

In this context, global financial conditions remain tight. The volatility in the markets, caused by problems in the banking sector at the beginning of the year, has gradually begun to fade. As a result, stock market indices are rising, reflecting reduced risk aversion and growth in the technology sector. However, interest rates and risk premiums are still high.

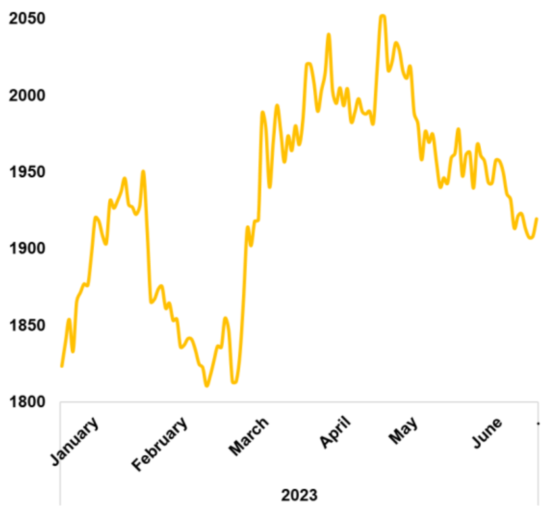
Prices in global commodity markets have declined slightly, which reflects concerns about the outlook for global growth and business activity in China.

**Figure 3.1.3. Dynamics of central banks' key rates in selected countries** *(in %)*




Source: CB of selected countries

**Figure 3.1.4. Gold prices** *(in dollar per ounce)*




Source: gold.org.

Despite a slight decline in gold prices, the cost of the precious metal currently continues to be within the range of $1,900 to $1,950 per ounce (*Figure 3.1.4)*.

Meantime, plans to cut oil production are pushing oil prices up. However, in the medium term, a global slowdown in business activity could lead to a fall in oil prices.

The cost of copper is directly dependent on the macroeconomic performance of China, as it is its main consumer.

In some countries, strong economic performance at the beginning of the year has led to an upward revision of the world economic outlook.

As recent data shows, China's recovery after the easing of all restrictions has not been as strong as many had expected. In particular, youth unemployment in China is very high (over 20%), which erodes confidence in future development.

Tightening credit conditions, restrictive monetary policies, and pressure on the US and EU banking systems may cause a decline in global investment and consumption dynamics.

## 3.2. Economic situation of major trading partners

*In Q2, inflation in the countries - main trade partners of Uzbekistan - continued to slow down. However, by the end of the year, some acceleration of price growth rates is expected as a result of various factors, including pressure on the exchange rates of China, Russia, and Turkey*

**China**. In China, monthly deflation in consumer and producer prices continues amid very moderate consumer sentiment. In June, consumer prices *(Figure 3.2.1)* remained at the same level as in May, while a 5.4% decline in producer prices led to a slowdown in manufacturing activity *(Figure 3.2.2).*

China's exports fell for the third consecutive month, indicating weaker global demand.

The People's Bank of China cut its key interest rate in June to support domestic activity, and additional measures to stimulate the economy are expected.

Most international financial institutions forecast the continuation of moderate growth in China's economy. In particular, according to the World Bank, Chinese economic growth in 2023 will amount to 5.6%, and the Asian

Development Bank projects 5% growth due to the recovery of consumer demand and stable capital inflows in infrastructure and production.

**Figure 3.2.1. Consumer inflation of major trading partner countries** *(annualized, in %)*

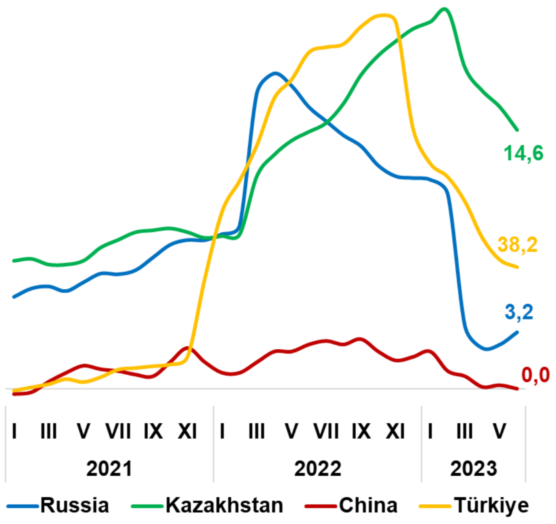
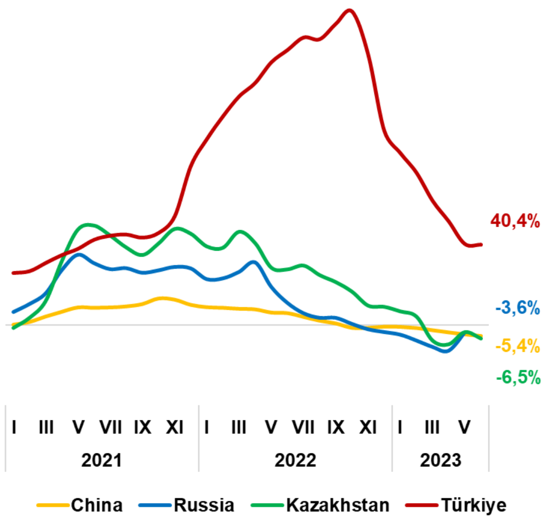



**Figure 3.2.1. Producer inflation in trading partners** *(annualized, in %)*




*Source: Statistical agencies of the respective countries*

**Russia**. In the context of recovering business activity in many sectors of the Russian economy, positive expectations about the economic situation have begun to form. In particular, industrial production and business confidence have improved since June. However, due to the rising costs of logistics and labor shortages, the cost of production is growing.

In the consumer goods market, prices rose by 0.45% in June, and annual consumer inflation amounted to 3.2% *(Figure 3.2.1).*

In the first half of the year, the Russian ruble weakened by 26% against the dollar as a result of the decrease in the current account surplus *(Figure 3.2.3).* For this reason, the growth of inflation expectations of the population is accelerating.

**Kazakhstan.** Kazakhstan's latest macroeconomic indicators show an improvement in economic growth (5% per annum in June), expansion of domestic demand due to fiscal stimulus, and growth in exports. As a result, economic prospects were revised upward in the June report of the National Bank of Kazakhstan.

Since the end of February, business activity has accelerated, reflecting the stability of consumer demand and high investment activity *(Figure 3.2.5).*

**Figure 3.2.3. Change in exchange rates of trading partners against the US dollar** *(January, 2023 =100, in %)*

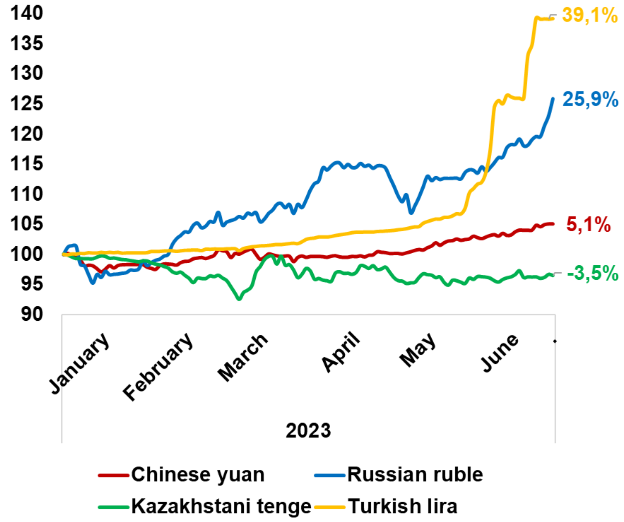
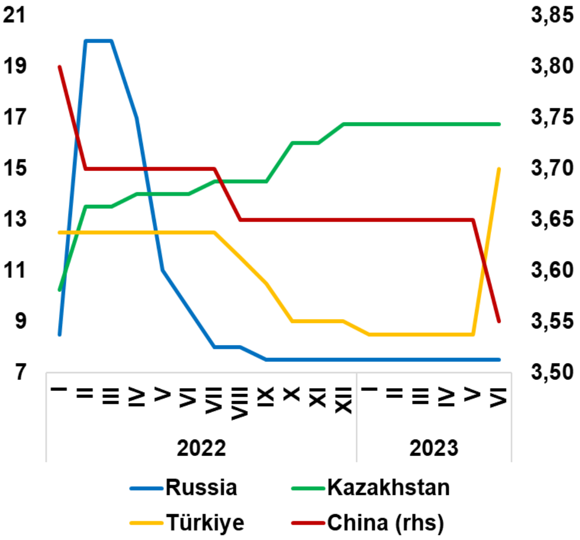



**Figure 3.2.4. Key rates of central banks of major trading partners** *(annualized, in %)*



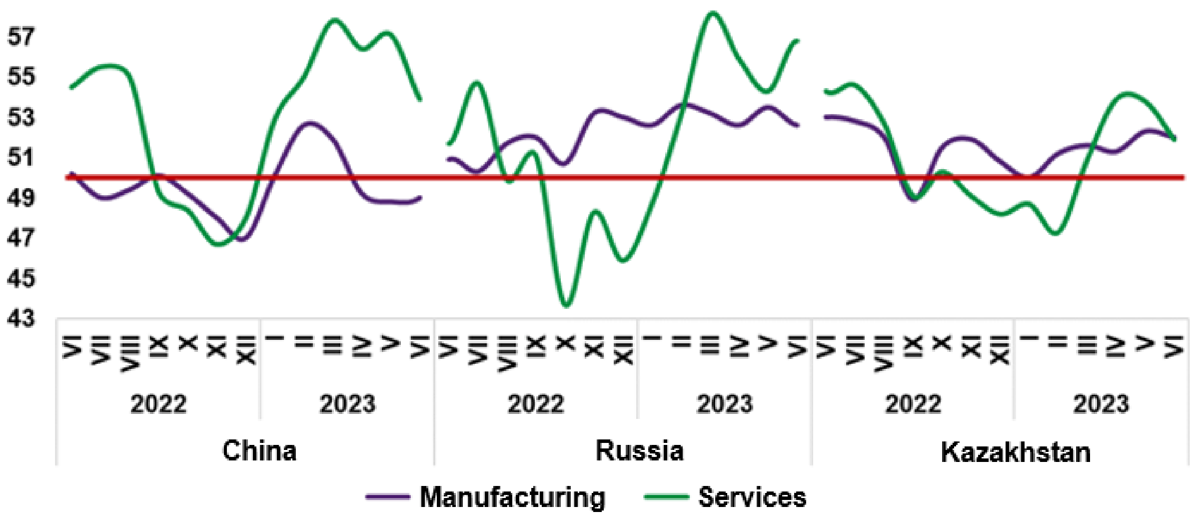

*Source: Statistical agencies of the respective countries*

Based on the data from the National Bureau of Statistics, inflationary pressures are gradually weakening. In June, consumer inflation decreased to 14.6% year-on-year.

In general, the stable development of Kazakhstan's economy has a positive impact on activity throughout the region.

**Turkey**. In Turkey, the trend of high economic activity and consumer demand prevails. Inflation remains above the target rate, although it has declined significantly. The depreciation of the national currency creates additional pressure on pricing.

**Figure - 3.2.5 Business Activity Index – PMI** *(in p.p.)*




*Source: J.P. Morgan*

The year-on-year consumer price growth in June was 38.2%, whereas producer prices remained flat at 40.8%.

In June, the Turkish Central Bank began a cycle of rate hikes after a long period of unorthodox monetary policy, raising the key rate by 6.5 p.p. to 15% at once *(Figure 3.2.4).*

## 3.3. The influence of the changes in the external conditions on the domestic economy

External changes continue to affect the domestic economy. In the first half of this year, the stabilization of the situation in foreign markets has, to a certain extent, returned macroeconomic indicators, which experienced high volatility last year, to their long-term trends.

In general, the economy remained stable during Q2, despite various external shocks.

**Prices on the world commodity market.** At the beginning of the year and partly in Q2, world prices for Uzbekistan's export goods experienced a downward trend. Due to the price effect, the export of textile products (including yarn and fabric), non-ferrous metals (copper), and partially energy resources experienced a decline compared to the same period last year *(Figure 3.3.1).*

Meanwhile, the high value of gold prices in foreign markets, along with exports of food, ferrous metals, and machinery, are among the factors supporting the overall export growth.

Despite a slight decrease in prices in the global commodity markets, high growth rates are observed in almost all categories (except for ferrous and non-ferrous metals) in the dynamics of imports.

This is mainly due to the growing share of final products in the import structure, which is caused by the high level of domestic demand *(Figure 3.3.2).*

**Cross-border money transfers.** Since April of the current year, the monthly dynamics of cross-border money transfers have begun to decrease compared to the corresponding period of the previous year *(Figure 3.3.3)*. The recent depreciation of the Russian ruble will create additional downward pressure on the formation of remittance volumes until the end of 2023.

**Figure 3.3.1. Export dynamics** *(%, January-May, the corresponding period of the previous year)*

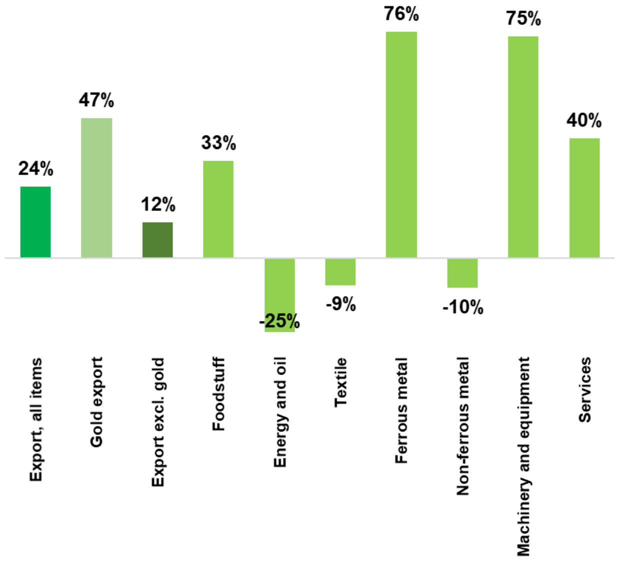
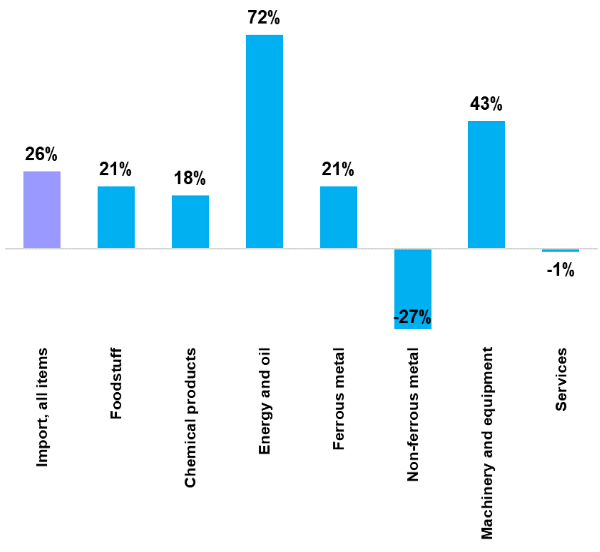



**Figure 3.3.2. Import dynamics** *(%, January-May, the corresponding period of the previous year)*

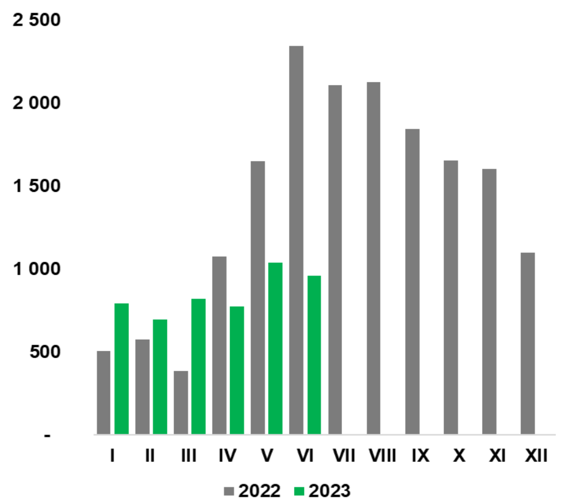



*Source: Statistics Agency.*

However, in the context of a high demand for labor in most countries receiving migrants, the possible increase in wages may partially offset the impact of the exchange rate depreciation.

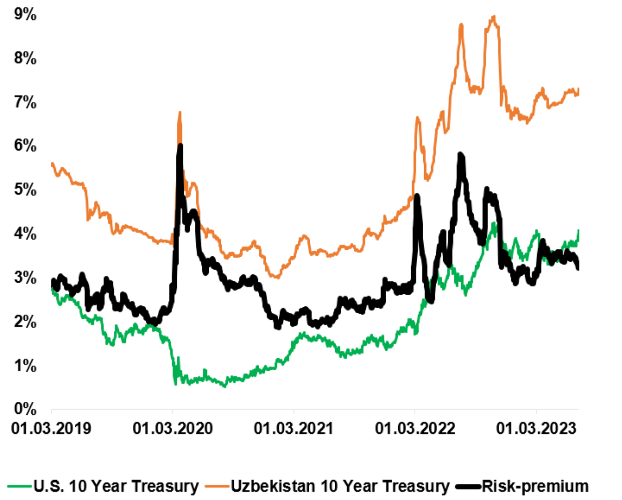
**Financial conditions.** The relative normalization of external conditions is also reflected in the alternative indicator of the country's risk premium, which has significantly decreased since the beginning of the year and formed around 3.5% during Q2 *(Figure 3.3.4).*

**Figure 3.3.3 Dynamics of remittances** *(in mln. USD)*




*Source: CBU*

**Figure 3.3.4. Alternative risk premium indicator** *(in %)*

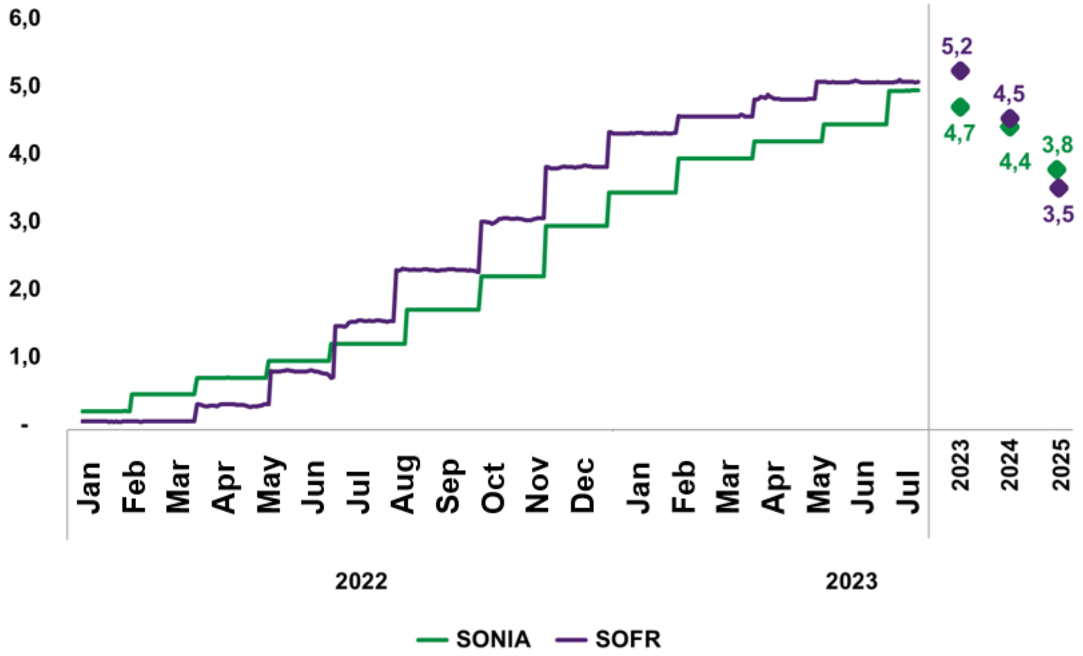



*Source: bloomberg.org.*

World financial markets are gradually adapting to the emerging global tight monetary conditions. Despite the fact that interest rates for attracting debt remain at a high level, economic agents are taking into account the possible loosening of monetary conditions in the future due to inflation control. As a result, from the second half of the year, it is expected that the possibilities of external borrowing for the private and public sectors will gradually expand.

The expected decrease in SOFR and SONIA rates will ease the attraction of debt funds in the medium term.

**Figure 3.3.5. Dynamics of SOFR and SONIA rates and forecasts**



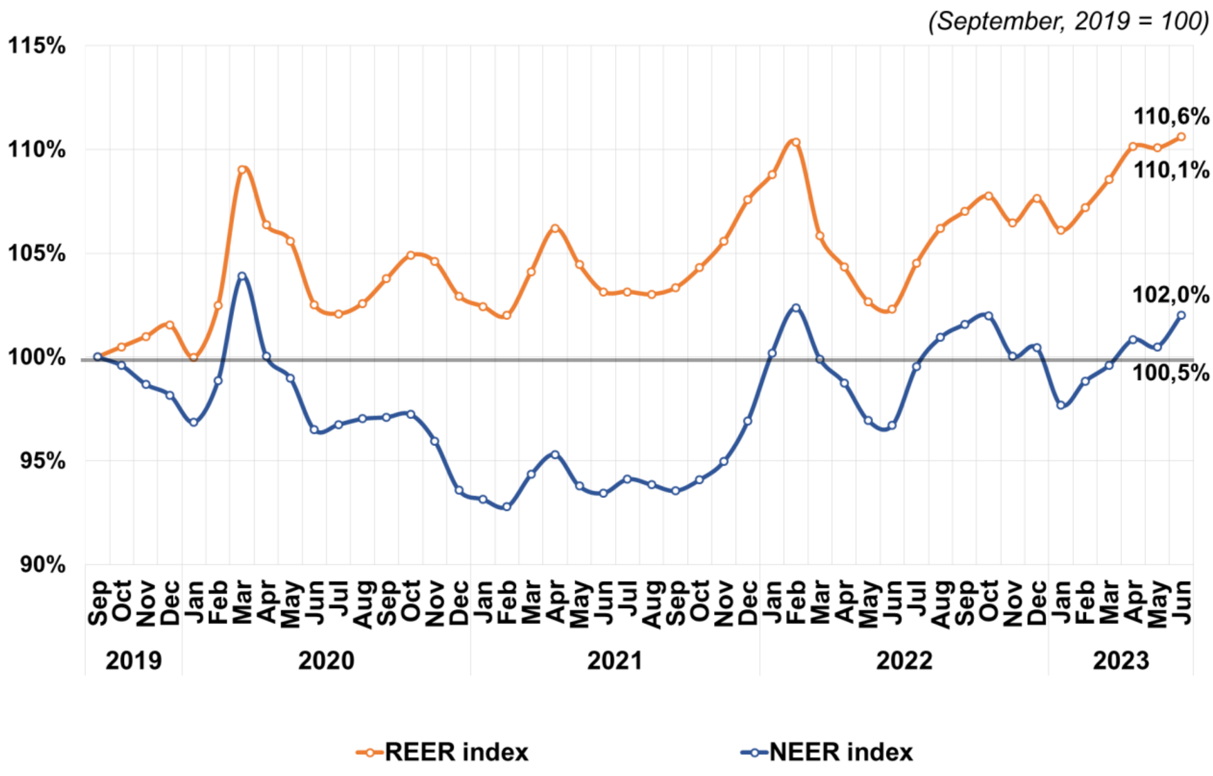

*Source: bankofengland.co.uk, newyorkfed.org*

*Box 7*

## Real effective exchange rate dynamics and analysis

The real effective exchange rate (REER) continued to strengthen in Q2 of 2023, showing growing dynamics (an increase of 8.3% compared to the corresponding period of 2021, and a rise of 10.6% compared to the base month - September 2019).

**Figure 1. Dynamics of nominal and real effective exchange rate indexes**



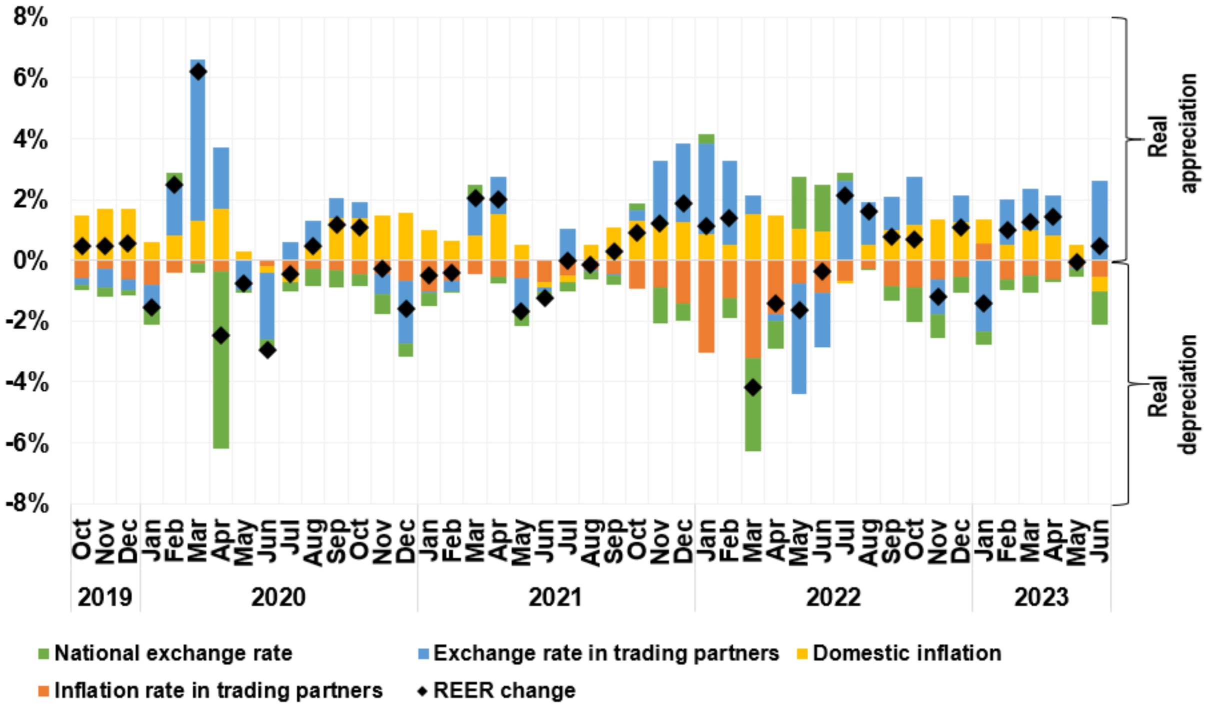

*Source: Central Bank calculations.*

During this period, the appreciation of the REER can be explained by the depreciation of exchange rates amid the slowdown in inflation in almost all of the main trading partner countries.

In Q2 of 2023, inflation rates continued to decrease in almost all major trading partners

- In Russia, although the devaluation of the exchange rate created additional pressure on prices, inflation remained low due to the impact of a high base effect.
- In Kazakhstan, under high and volatile inflation expectations, along with government plans to increase fuel and utility prices, inflation forecasts have been raised.
- China experienced a decrease in domestic and foreign demand during Q2, which is contributing to the reduction in prices.
- As a result of traditional monetary policy tightening and the depreciation of the lira, uncertainties regarding Turkish inflation have arisen.

**Figure 2. Decomposition of the monthly change in the REER index**




*Source: Central Bank calculations.*

The currencies of major trading partners depreciated compared to the US dollar in Q2. Particularly:

- The Russian ruble depreciated by 10.8% (from 73.2 to 81.2) on average in Q2. The weakening of the ruble is primarily related to the state of the country's balance of payments and oil quotations.
- On average, there were no sharp changes in the dynamics of the Kazakh tenge in Q2.
- Under the influence of technological competition with the US and other developed countries, as well as the slowdown of China's economic growth and export support in the country, the yuan exchange rate during Q2 depreciated by 2.4% (from 6.84 to 7.01).
- The Turkish lira depreciated by an average of 10.8% (from 18.87 to 20.92) in Q2. The withdrawal of the lira support mechanism by the central bank from May was one of the main factors contributing to the devaluation.

# IV. MONETARY CONDITIONS

*In Q2 of 2023, **the monetary conditions** in the economy were «relatively tight», given unchanged policy rate at 14% per annum and slowing headline inflation. At the same time, the core inflation and inflationary expectations persisted to be relatively high.*

*During this period, the increase in **government expenditures** was one of the key factors that raised the liquidity of the banking system, and given the increased demand in the domestic foreign exchange market, the interventions of the Central Bank and cash related operations became major decreasing factors of the liquidity. As a result, the volume of liquidity surplus in the system decreased during the quarter, and this, in turn, served to the reduction of monetary factors on inflation.*

*The activity of commercial banks in the **money and REPO markets** went up, and the share of REPO market in total liquidity management operations reached 17% (2.5% in Q1). The increase in activity also had a positive effect on the price formation in the money markets, and during the quarter, the weighted average interest rates on deposit and REPO operations were close to the policy rate within the interest rate corridor.*

*Due to the fact that the transmission of money market interest rates into the deposits and loans rates takes some time, there was no significant change in the average nominal interest rates on deposits and loans in national currency during the quarter. The decrease in inflation was one of the essential factors of higher real interest rates.*

*In general, in Q2, the prevalence of saving behavior among population due to positive real interest rates in the economy, ensured the minimum impact of monetary factors on inflation.*

*At the same time, high growth rates are observed in loans provided to households, which requires the active use of macroprudential tools in addition to monetary policy measures.*

## 4.1. Monetary policy measures and their transmission to the money market

In order to ensure the monetary conditions, that will contribute to slowing down the inflation and achieving its projected parameters of 8.5-9.5% by the end of the year, the Central Bank has been keeping the policy rate unchanged, at the level of 14% per annum, throughout the quarter.

**Figure 4.1.1. Central Bank policy rate dynamics in nominal and real terms**[7]

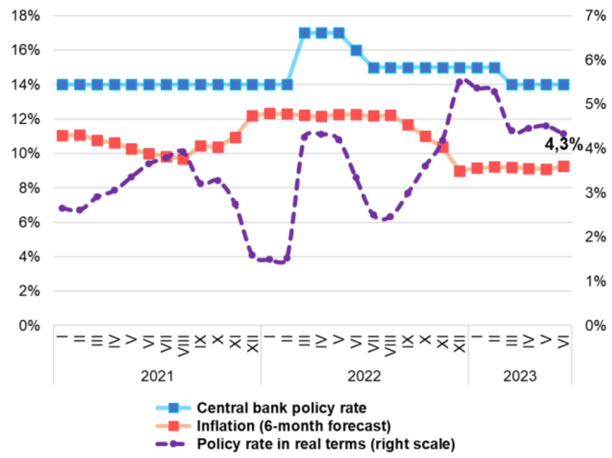
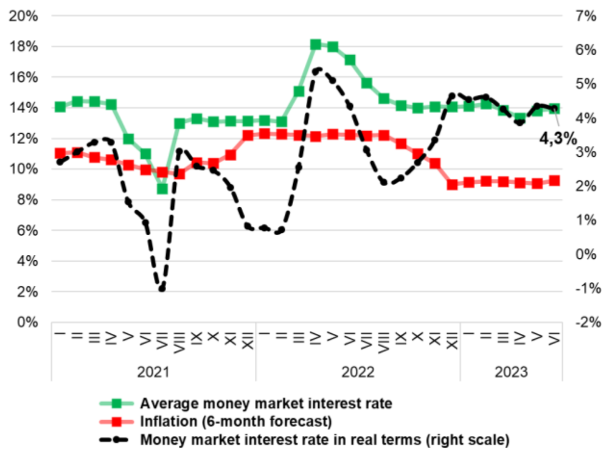



**Figure 4.1.2. Dynamics of interbank money market interest rate in nominal and real terms**




*Source: CBU calculations.*

As a result, policy rate in real terms, taking into account inflation forecast for the next period, was 4.3% in June. This serves to ensure «relatively tight» monetary conditions *(Figure 4.1.1)*.

Weighted average interest rates in the money market are approaching the policy rate, and was equal to 13.9% in June, deviating down from the policy rate by 0.1 p.p. Real interest rates in the money market also fluctuated around 4.3%, forming a range sufficient to ensure «relatively tight» monetary conditions *(Figure 4.1.2)*.

**The activity of commercial banks in the distribution of interbank liquidity has increased significantly.** In particular, 80.3 trln. sum worth of interbank money market operations was accomplished during the quarter, which increased by 8.1% compared to Q1 *(2.1 times more compared to the corresponding period of 2022)*.

The activity of banks in the money market is explained by the decrease in the volume of liquidity surplus and the increase in the efficiency of liquidity management in banks *(Figure 4.1.3)*.

Instead, during the period, there was a sharp increase in the activity of banks in the REPO market, and interbank REPO operations amounted to 16.3 trln. sum. The share of the interbank REPO market in the total money market operations increased to 16.9% *(2.5% in Q1)*.

[7] Real interest rates were calculated using 6 months ahead inflation forecasts (by the ARIMA model)

**Figure 4.1.3. Volume of money market operations** *(in trln. sum)* **and their interest rate**

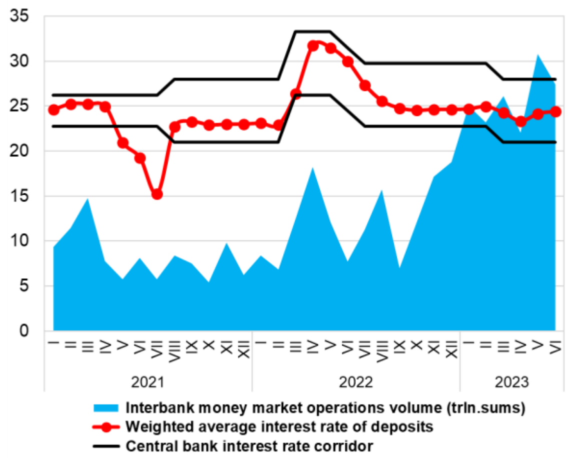
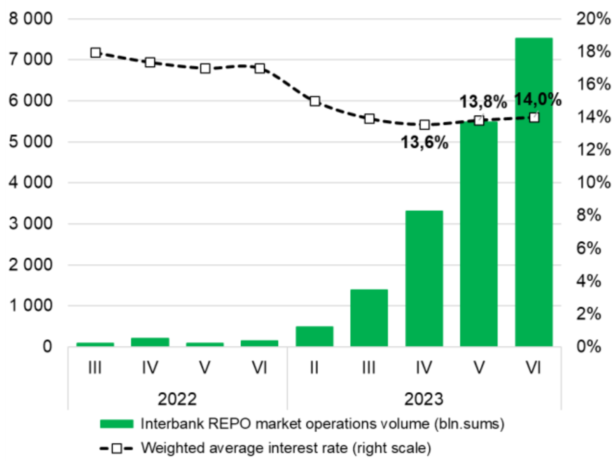



**Figure 4.1.4. Volume of interbank REPO operations** *(in bln. sum)* **and their interest rate**




*Source: CBU calculations.*

Interest rates on REPO operations were also close to money market interest rates, and the weighted average interest rate was 14% in June *(Figure 4.1.4)*. The convergence of interest rates in both money markets to the policy rate can be considered as a result of monetary policy operations, which means that the change in the Central Bank's policy rate will effectively be transmitted to the money market, in the future.

**«UZONIA» benchmark rate** in this period is characterized being close to the policy rate, with some fluctuations, the reduction of overall liquidity surplus and the positive changes in the price setting mechanism by banks *(Figure 4.1.5)*.

In turn, the dynamics of the term UZONIA rates also adjusted to the changes in the UZONIA rate. In particular, 7-day and 30-day UZONIA rates were close to overnight interest rates in the range of 13-14%. The 90-day and 180-day UZONIA rates had a decreasing dynamic in the range of 13.5-14.5% due to the policy rate change and its previous dynamics.

This situation reflects the gradual adjustment of longer-term interest rates to the decrease in overnight interest rates *(Figure 4.1.6)*.

The activity of banks in this market is expected to increase further in the coming quarters due to the measures designed to improve the interbank REPO market platform, and further automation of operations. At the same time, activity in the money market will also increase, and these two markets will gain complementary importance.

**Figure 4.1.5. UZONIA dynamics**

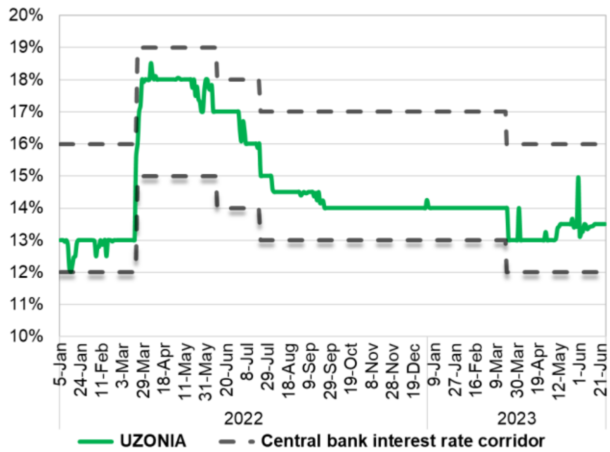
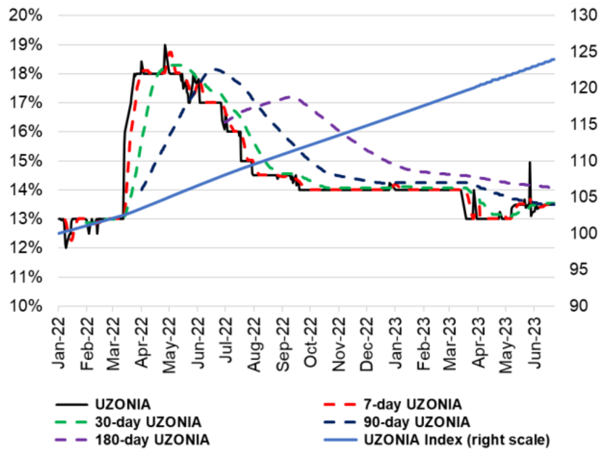



**Figure 4.1.6. Compound UZONIA and UZONIA Index**




*Source: CBU calculations.*

In particular, restrictions on uncollateralized practices and the need to manage credit risk in banks as part of the risk management policy serve to increase activity in the REPO market, while operational convenience ensures that the money market plays an important role in the distribution of liquidity. The presence of alternative markets in liquidity management has a positive effect on the formation of short-term interest rates.

## 4.2. Analysis of deposits and interest rates

**Total deposits in national currency increased by 7.1%** *(6.8 trln. sum)*, in Q2 after a slight decrease in the Q1, while deposits in foreign currency decreased by 9.3% *(4.2 trln. sum equivalent)*. As part of foreign currency deposits, there was mainly a decrease in demand deposits of private companies and state enterprises, savings deposits of joint ventures, and funds transferred to the letter of credit account for future payments.

Growth dynamics was observed in the total **deposits of individuals**, increasing by 15.2% during the quarter and reaching 69.6 trln. sum. At the same time, deposits in national currency increased by 18.7% *(8.7 trln. sum)*, of which the volume of term deposits increased by 13.7% *(3.3 trln. sum)*.

As of July 1, 2023, the annual growth of households' total deposits in national currency was 54.7%, while the growth of term deposits was 59%. The high growth rate of savings in national currency is explained by the attractiveness of deposits through high real interest rates, the stability of the exchange rate, and decelerating dynamics of inflation.

**Figure 4.2.1. Nominal interest rates on term deposits in national currency**

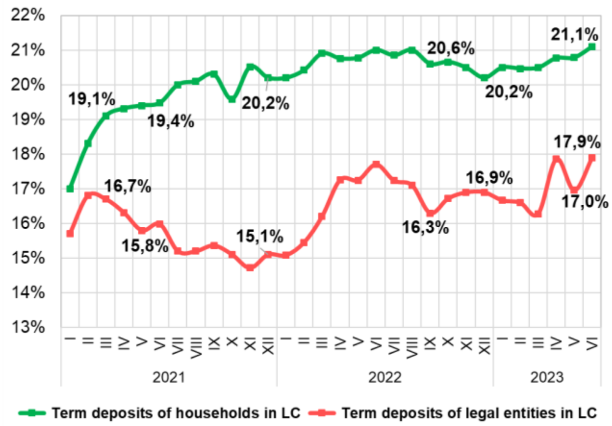
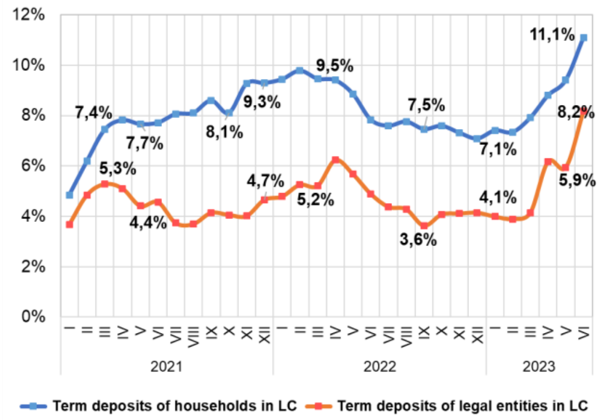



**Figure 4.2.2. Real interest rates on term deposits in national currency**




*Source: CBU calculations.*

Weighted average nominal interest rates on term deposits of individuals rose to 21.1% in June, while on deposits of legal entities to 17.9% *(Figure 4.2.1)*.

Real interest rates on term deposits in national currency *(taking into account the level of inflation)* were formed at the level of 11.1% for individuals, and at 8.2% for legal entities in June *(Figure 4.2.2)*.

The fact that the interest rates on term deposits of households in national currency are 5-6 p.p. higher than their inflation expectations, is one of the key factors that raise savings activity and normalize the aggregate consumption.

In the current conditions of real interest rates on national currency deposits and the expected stable exchange rate, it is projected that the households' deposits in national currency will continue to grow considerably in the coming quarters.

## 4.3. Analysis of loans and interest rates in the economy

In Q2 of 2023, **the loans to the economy** increased by 4% *(17 trln. sum)* and reached to 442 trln. of sum. Excluding the exchange rate valuation effect, the growth rate of loans to the economy was 3.8% *(the sum depreciated by 0.5% against the US dollar and by 0.8% against the euro during the quarter)*.

The outstanding loans in national currency increased by 6% *(14 trln. sum)* during the quarter, and its share in the total loans to the economy composed 56.1% *(Figure 4.3.1)*. That is, the loan dollarization was

43.9% at the end of the quarter, which is one of the main factors that reduce the effectiveness of monetary policy.

The loans to households increased by 13.3% *(14.5 trln. sum)* during the quarter, and the share of retail loans in the total loans stood at **28%** by the end of the quarter *(Figure 4.3.2)*.

In Q2 of 2023, commercial banks provided a total of 62.1 trln. sum worth of loans to the economy and increased by 15.8% *(8.5 trln. sum)* compared to the Q1, and by 25.4% *(12.6 trln. sum)* compared to the corresponding period of 2022. The loans provided to households increased by 1.7 times, with a relatively high share in car loans, mortgage loans and microloans.

**Figure 4.3.1. Dynamics of loans to the economy and its components** *(in trln. sum)*

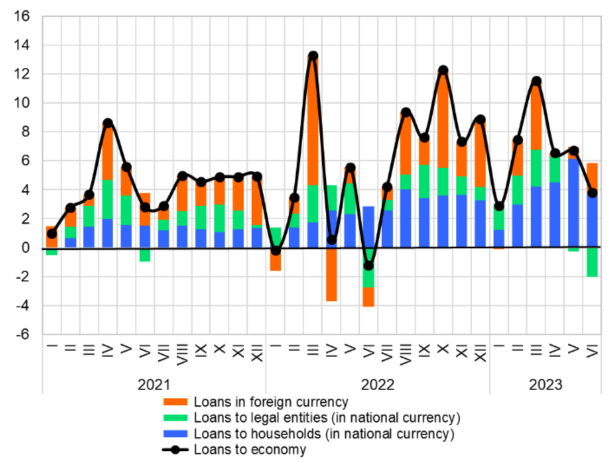
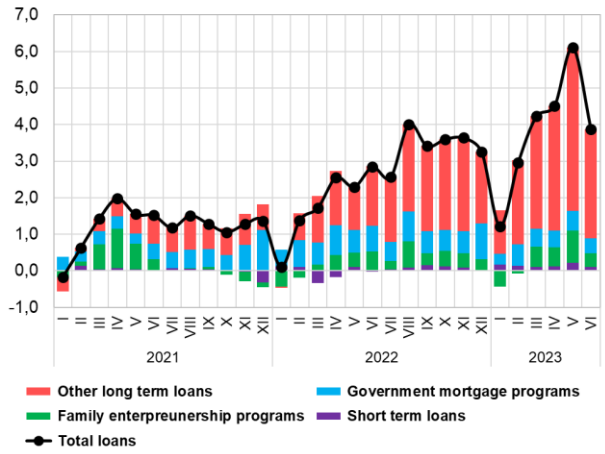



**Figure 4.3.2. Change in stock of loans to individuals** *(in trln. sum)*




*Source: CBU calculations.*

As of July 1, 2023, the annual growth rate of loans to the economy was 25.1% and the annual growth of loans to households was 54%. The high growth rate of retail loans is explained by high demand of households on loans. A sharp increase of the outstanding loans to individuals can increase the likelihood of risks to financial and macroeconomic stability by raising the debt burden.

In this case, the «hunger for loans» is considered to be a stronger factor than the rigidity of monetary conditions, and it is necessary to use macroprudential and monetary policy measures in coordination in order to stabilize the growth of household loans.

The main explanatory variables, which affect the interest rates on loans includes the inflation rate, liquidity price in the money markets, inflationary expectations of economic entities and the deposit interest rates.

During the quarter, the interest rates on loans in national currency were formed in the range of 22-23%. In particular, the weighted average interest rates on short-term loans in national currency were 22.3% and on long-term loans 22.7% in June *(Figure 4.4.3)*.

**Figure 4.3.3. Nominal interest rates on loans in national currency**

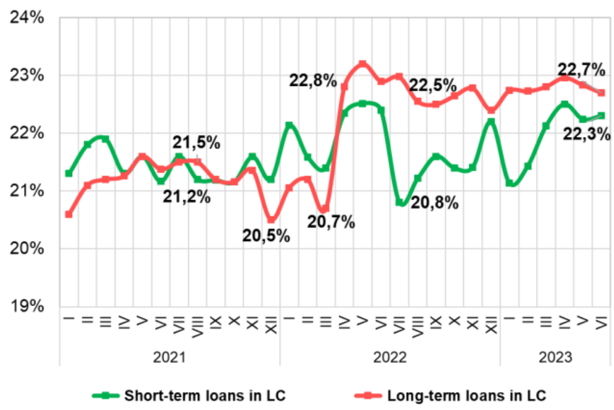
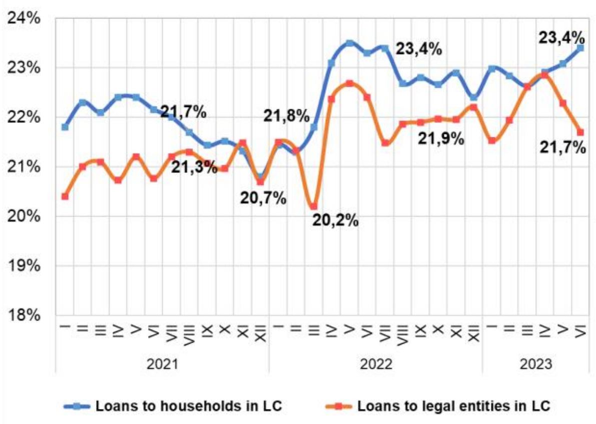



**Figure 4.3.4. Nominal interest rates on loans in national currency**




*Source: CBU calculations.*

In turn, the weighted average interest rates on loans for individuals and legal entities in national currency were equal to 23.4% and 21.7% respectively in June *(Figure 4.4.4)*.

The average interest rates on loans in national currency have been around 22-23% per annum, in the last few quarters, and in accordance with the expected decrease in the level of inflation, the decrease of the Central Bank policy rate will serve the decrease in the loans interest rates.

At the same time, despite the decrease in headline inflation, the **persistence of core inflation will indicate the presence of fundamental inflationary pressures in the economy**, which will necessitate to **keep the «cautious» approach** in easing the monetary conditions by the Central bank.

*Box 8.*

### Assessment of changes in financial conditions in the economy

**Financial conditions** are the current state of financial variables affecting the economic behavior of market participants. Such financial variables may include indicators representing the supply and demand for financial instruments related to economic activity.

Changes in monetary policy initially affect financial market conditions and over a specific period of time real economic activity. Indices that reflect financial conditions make it possible to eliminate the intermediate delay of this effect and to form certain expectations about future economic activity.

Most central banks have developed composite indices that reflect financial conditions. For some regulators, they serve to predict financial shocks in advance, while for others, they help to assess the impact of monetary policy on the economy and monitor changes in financial conditions.

**The Chicago Federal Reserve's National Financial Conditions Index (NFCI)** is based on more than 100 financial indicators and provides updated weekly data on the financial condition of US money markets, debt, stock markets and the traditional banking system.

**The International Monetary Fund** calculates a composite index of financial conditions for 43 developed and developing countries using 10 financial indicators. The set of financial variables includes changes in long-term interest rates, changes in stock returns and housing prices, credit growth, interbank interest rate differentials, etc.

Taking into account the relevance and necessity of monitoring the general direction of financial conditions, the index of financial conditions was calculated for the economy of Uzbekistan *(Figure 1).*

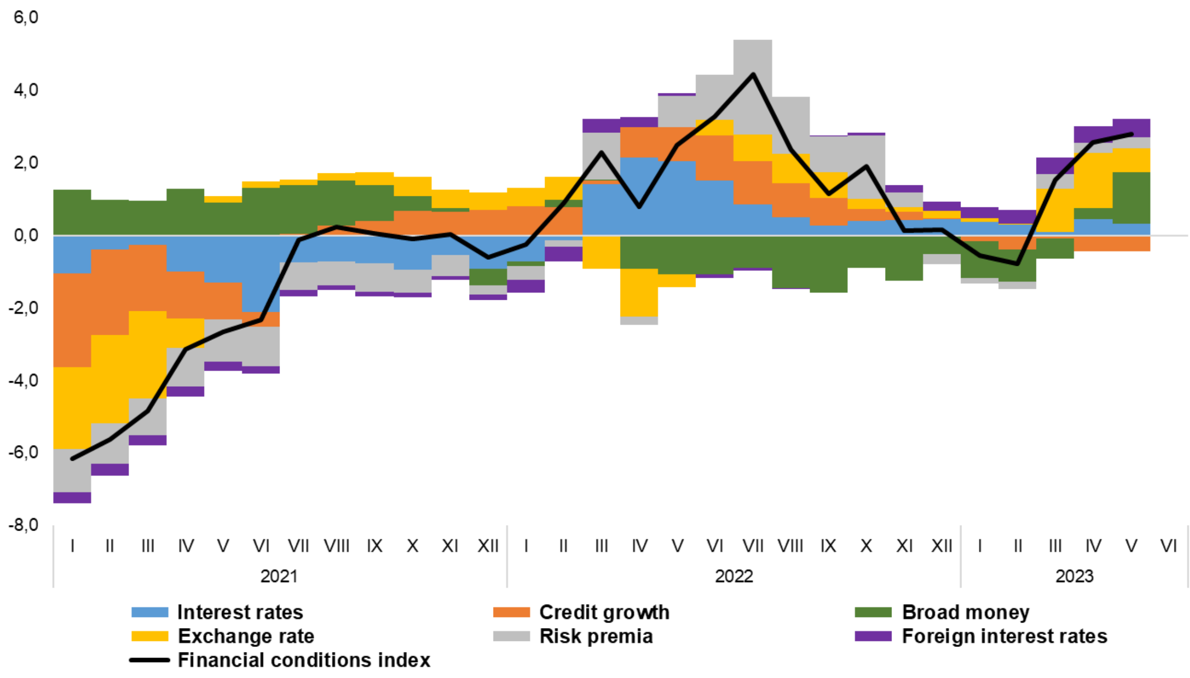
**The index includes 10 main indicators and consists of 6 components:** interest rates in the economy, changes in the loans to economy, changes in the money supply, fluctuations in the exchange rate, the country's risk premium and changes in foreign interest rates. The index was calculated based on the standard deviation of the indicators from their average values for the period from the beginning of 2021.

**Positive values** of the index indicate that financial conditions are tighter (restrictive) than average, while **negative values** reflect relatively easy (stimulating) conditions.

During the pandemic and the subsequent recovery, a significant easing of financial conditions was observed, and with the normalization of the situation in the country, it gradually began to move into a tight phase.

This, in turn, made it possible to minimize the impact of monetary factors on inflation in the second half of 2021.

**Figure 1. Financial conditions index for the economy of Uzbekistan**




*Source: CBU calculations.*

In 2022 when temporary shocks were observed in certain external economic indicators due to external geopolitical condition, Central bank raised the policy rate to the 17% per annum in order to minimize their transitory effect on the domestic economy and it followed by policy rate cut due to positive dynamics of external condition, which was one of the key factors in affecting financial conditions in the economy.

In turn, the tightening of global monetary conditions as a response to the deviation of inflation from its target in many countries has increased the country's risk premium and made it somewhat difficult to attract external financial resources.

At the same time, there was a high growth in remittances to the country last year (by 2.1 times), and the use of these funds for private consumption, including the sale of those resources to banks increased the money supply and it was one of the main factors easing financial conditions.

Despite the fact that relatively tight financial conditions have formed in the economy since the beginning of this year, a higher than average growth rates were observed in loans, in particular, loans provided to households.

A positive deviation of the ratio of loans-to-GDP from the long-term trend and **a higher rate of growth of loans provided to individuals compared to total incomes** indicate that the debt burden in the economy is increasing *(Figure 2).*

At the same time, due to the high credit growth observed in previous years, the ratio of loans-to-GDP increased, and due to the balancing of the credit growth the potential level of this ratio showed a decreasing dynamics in the last 2 years and approached 1 unit. In the future, the ratio of loans-to-GDP is expected to fluctuate around the potential level of 1 unit, which means that the growth of loans to economy will correspond to the growth of nominal GDP.

**Figure 2. The deviation of loans-to-GDP ratio from its long-term trend**

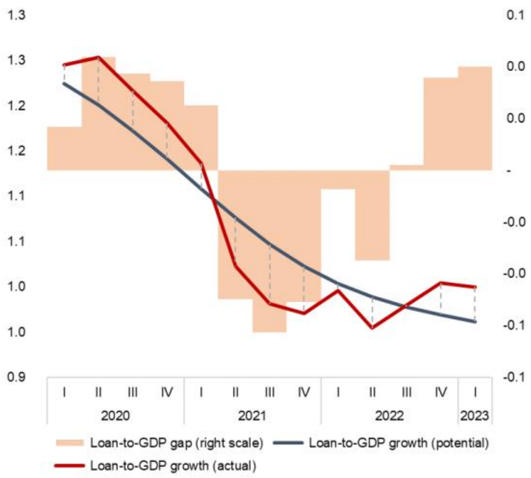
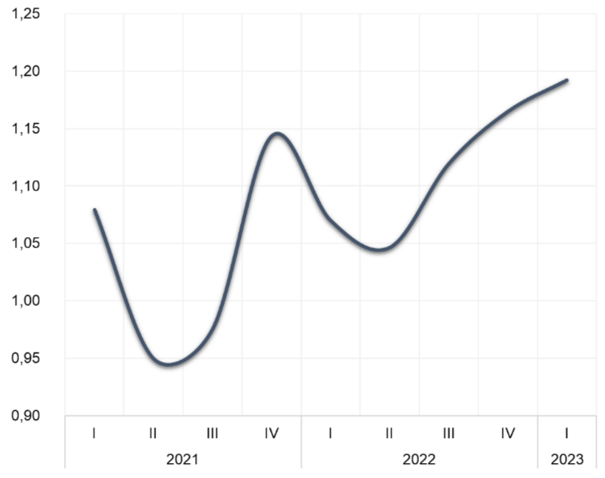



**Figure 3. The ratio of growth of loans to individuals to their total income growth**




*Source: CBU calculations.*

The increase in the ratio of the growth of loans to individuals to the growth of the total income of the population may affect the quality of the banking system's loan portfolio in the future *(Figure 3).* This, in turn, creates the need to strengthen macroprudential policy measures.

Continuation of a relatively tight monetary policy and tightening of external financial conditions, preservation of the country's risk premium and strengthening of the real effective exchange rate have been serving to tighten the financial conditions since the beginning of the year.

Considering the persistence of the development of the above-mentioned financial indicators in the current directions, relatively stable financial conditions are expected in the economy until the end of the year.

The expected decrease and stabilization of inflation in the medium-term perspective will lead to the corresponding decrease in interest rates in the economy and the formation of financial conditions at a neutral level.

# V. MEDIUM-TERM MACROECONOMIC FORECASTS

## 5.1. Expected internal macroeconomic developments

The Central Bank has revised the medium-term macroeconomic projections based on statistical data, available by the end of the first half of 2023, also given the level of aggregate demand and supply in the economy, high fiscal stimulus, recent forecasts on the major trading partner countries, expectations on the main export and import goods' prices on world markets, and their impact on our economy.

According to the forecasts, by the end of the year, the **real GDP growth is projected to be around 5-6%** *(Figure 5.1.1).*

**Figure 5.1.1. Real GDP forecast,** *(in %)*

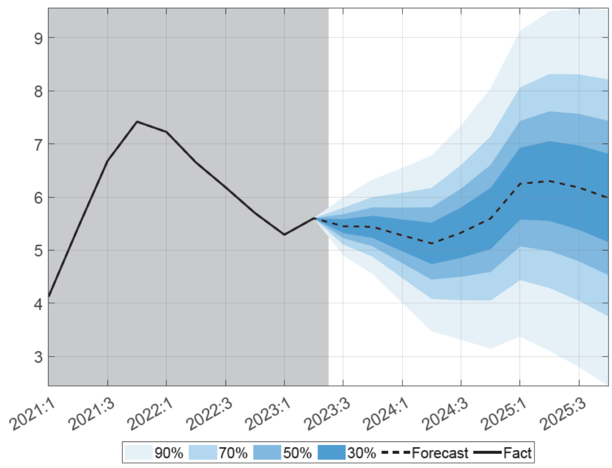
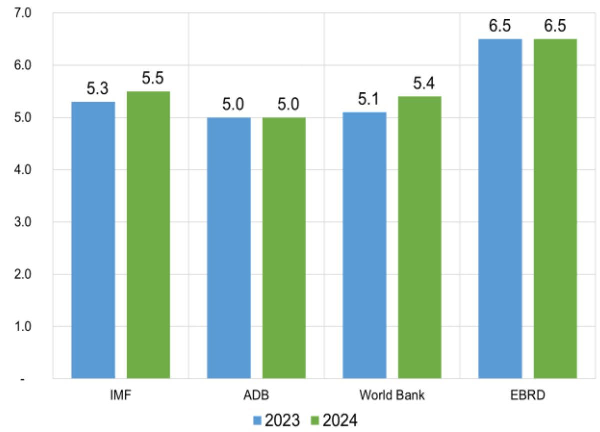



**Figure 5.1.2. Real GDP projections by international organizations,** *(in %)*




*Source: CBU calculations.*

International financial organizations have also updated the growth projections for countries, taking into account the current economic conditions. In particular, according to the forecasts of the World Bank (June, 2023), the economy of Uzbekistan is expected to grow by 5.1% in 2023, and by 5.4% in 2024 *(Figure 5.1.2).*

This year, the population real income rise, the services sector positive dynamics, strong fiscal stimulus to the economy and high bank lending activities will be the key drivers of economic growth.

Foreign trade is expected to remain stable in 2023 with **10-15%** growth in exports (without gold) and **12-17%** increase in imports.

## 5.2. Inflation forecast and monetary policy measures

In the first half of 2023, the external inflationary risks have eased and inflationary pressures through the prices of imported goods have decreased.

However, high budget expenditures during this period, real income growth in all sectors, as well as high growth in retail loans will remain the major drivers of consumer demand, in the second half of the year.

The supply chain disruptions of food products, which in turn, have not completely gone, following by strong consumer demand, largely affect the inflation of basic foods and services.

**Figure 5.2.1. Headline inflation forecast,** *(in %)*

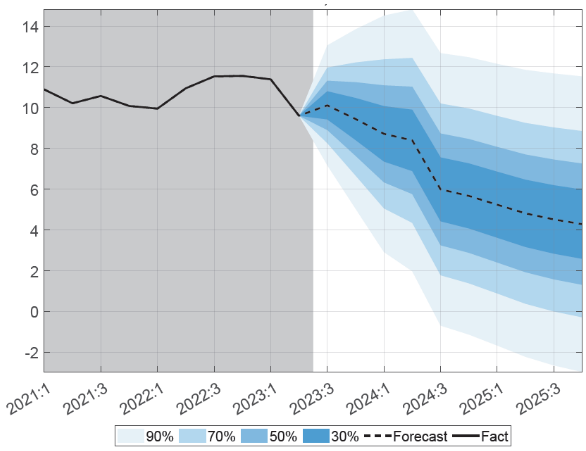
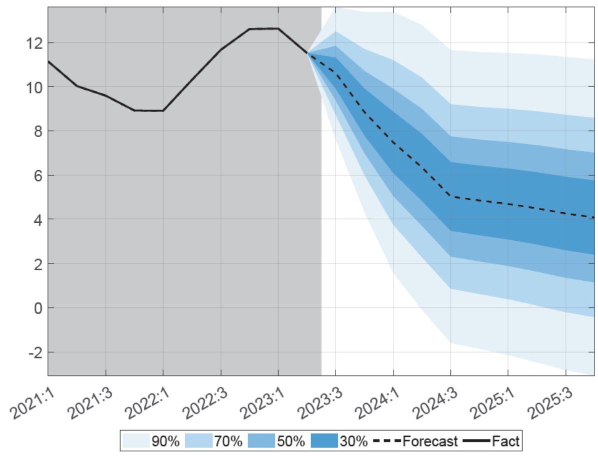



**Figure 5.2.2. Core inflation forecast,** *(in %)*




*Source: CBU calculations.*

Moreover, a growing problem regarding water shortage in the region is causing high fluctuations in the price of fruits and vegetables.

According to forecasts, the inflation rate by the end of this year is expected to be around **8.5-9.5%**, forming within the baseline scenario presented in the «Monetary policy Guidelines for 2023 and 2024-2025» *(Figure 5.2.1).*

In turn, the stable headline inflation within the range of 8.5-9.5% requires a decrease in the **core inflation to 7.5-8.5%** by the end of the year *(Figure 5.2.2).*

A slower than expected decline in current core inflation and a widening gap with the headline inflation add to concerns about the longer-term persistence of inflationary pressures. It indicates that monetary conditions should be maintained relatively tight for a longer period of time.

Based on this, until the end of this year, the Central Bank will maintain the current stance of monetary policy, and it is necessary to ensure a positive level of real interest rates in the money market of at least **3-4%** (a positive difference of 1-1.5 p.p. with the neutral interest rate). Only in this case, with deceleration of inflation, the decision on reducing the nominal rates might be taken.

Meanwhile, in case of a significant increase in inflationary pressures due to external or internal economic shocks, measures will be taken to further tighten the monetary conditions. Under the baseline scenario of macroeconomic developments, the probability of such inflationary risks is low.

*Box 9.*

**Inflationary factors in the coming quarters**

***Internal factors:***

Higher than expected budget spending in the first half of 2023, consumption in the second half will be one of the main factors supporting demand.

Rising real wages in all sectors of the economy can create inflationary pressures in the context of slower adjustment of supply to demand.

In the retail credit market, high growth trends are maintained, which will be one of the main drivers stimulating the consumption demand of the population.

In the conditions of water scarcity in the region, the cost of growing local agricultural products (especially grains, fruits and vegetables, and livestock products) may increase.

***External factors:***

The effects of high inflationary pressure are expected to continue in the world economy as a whole.

While the supply of imported food products (in particular, wheat, sugar, vegetable oil) has improved somewhat, uncertainties regarding the duration of this situation remain high.

The expiration and non-renewal of the Black Sea Grain Agreement may have a negative impact on world prices of basic food commodities.

Global climate warming observed this year (El Niño phenomenon) may affect current and future harvests of major food exporting countries.

*Prepared by the Monetary policy department.*

*The English version is the translation of the original Uzbek one and for information purposes only. In cases of discrepancies, the original text in Uzbek language prevails.*

*For suggestions and remarks:*

*E-mail:* achilov@cbu.uz

*Telephone number: (+998) 71 212-60-22*