The Central Bank
of the Republic of Uzbekistan

2024 Q2

MONETARY POLICY REPORT

Central Bank of the Republic of Uzbekistan

In implementing monetary policy, the emphasis is placed on achieving price stability and the medium-term inflation target of 5 percent

5%

CONTENTS

SUMMARY

At the meeting on July 25, 2024, the Board of the Central Bank cut the policy rate by 0.5 percentage points to 13.5 percent per annum.

Downward trend in core inflation and inflation expectations dynamics indicate that the secondary effect of the increase in energy tariffs on inflation are lower than expected, that strengthens confidence in the formation of inflation at the lower bound of the forecast corridor at the end of the year.

Relatively tight monetary conditions are serving to narrow the positive output gap and reduce inflationary pressure from the demand side.

In June, headline inflation amounted to 10.6 percent year-on-year, with a substantial decline in the persistent inflation components as well as fruit and vegetable prices. Also, price dynamics in the external markets continues having a downward impact on imported inflation.

Moreover, lower food inflation and stability of the exchange rate positively influenced inflation expectations of households, which significantly decreased in June. This provides conditions for a reduction in pressure on inflation from expectations.

Core inflation continued its downward trend, reaching 5.9 percent in June and decreasing by 2.6 percentage points since the beginning of the year. This is attributed to the fact that the secondary effect of energy tariff changes was lower than expected, thus signaling the probability of a continuation of the downward trend in inflation in the future.

The inflation projection has been revised down due to the lower-than-expected core inflation and weaker inflationary risks this year. Headline inflation is expected to be around 9 percent at the end of the year and approach the 5 percent target by the end of 2025.

In the second quarter of 2024, economic growth continued accelerating, with the economy growing by 6.4 percent in real terms in the first half of the year. Manufacturing, construction and services are major drivers of economic growth.

Strong investment activity, especially foreign direct and private capital investment, is one of the important factors behind the expansion of gross investment demand.

Despite a relative decrease in economic activity and business sentiment over the last two months, the indicators remain positive.

Amid expected continuation of high investment and production activity in the second half of the year, the real GDP growth forecast has been revised up to 5.7-6.2 percent by the end of the year.

Due to structural changes in the expenditures of households and business entities, aggregate consumer demand is projected to somewhat moderate.

Maintaining relatively tight monetary conditions in the economy serves to ensure the balance between aggregate demand and supply. As a result, the current positive output gap of 0.5-0.6 percent is expected to close by the end of the year, with its decreasing effect on inflation.

Export revenues and remittances are projected to grow higher than previously expected given strong economic growth in the major trading partners and favorable prices in the world markets.

In the second quarter of this year, there was a considerable increase in foreign currency inflows through various channels, that contributed to the stabilization of the soum exchange rate.

Overall liquidity of the banking system, dynamics of savings and loans indicate that the monetary condition remains relatively tight. This, in turn, will further increase the attractiveness of savings in soum thus ensuring high growth in households' savings.

However, there are still some uncertainties regarding the continuation of the current dynamics of inflation expectations until the end of the year and pro-inflationary risks associated with persistently high core services inflation.

The Central Bank will continue ensuring relatively tight monetary policy aimed at achieving the 5 percent inflation target.

I. MEDIUM TERM MACROECONOMIC OUTLOOK

1.1. Macroeconomic outlook

Taking into account aggregate supply and demand in the first half of 2024, updated domestic and external macroeconomic indicators and expectations, the Central Bank of Uzbekistan has improved the medium-term economic growth forecast.

According to the updated forecasts, the economy is expected to grow by around 5.7-6.2 percent in 2024 *(0.5 percentage points higher than in April forecast) (Figure 1.1.1).*

High domestic and foreign economic activity, increasing investment inflows, a rise in household income owing to a deceleration in the persistent inflation components throughout the first half of the year were key factors behind upward revision of economic growth forecast.

Meanwhile, in the context of strong private demand final consumption expenditure is expected to continue increasing and grow by around 5-6 percent in 2024.

Given fiscal objectives of the Ministry of Economy and Finance, consolidated budget deficit to GDP is projected not exceed 4 percent this year and 3 percent from 2025 onwards.

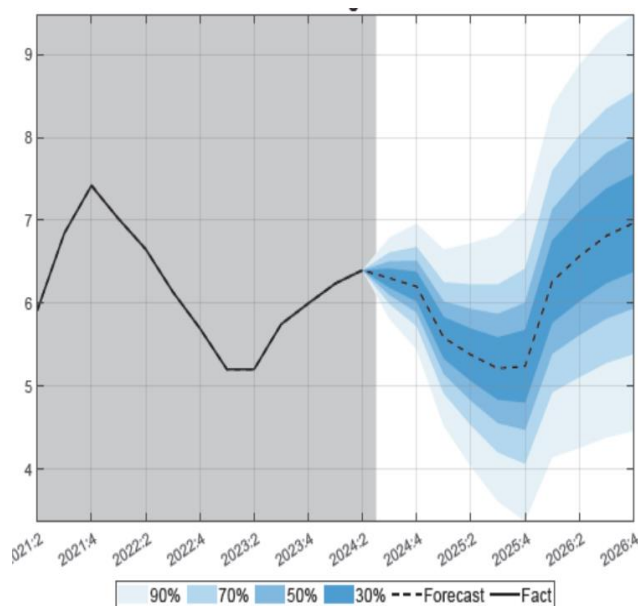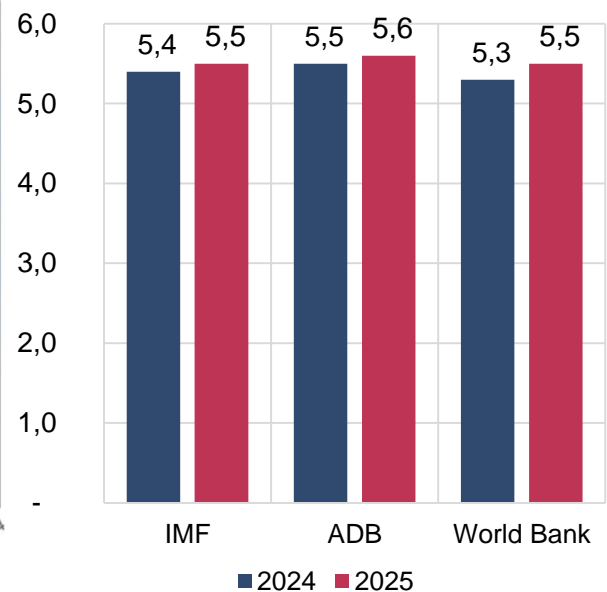**Figure 1.1.1. GDP growth forecast,** *percent*

Figure 1.1.2. Uzbekistan's real GDP forecast by international financial institutions, *percent*

Source: CBU calculations.

In conditions of fiscal spending optimization, an increase in public consumption expenditures in 2024 is expected to be around last year's level.

Growth of private investment in fixed capital in the second half of this year will remain high.

International financial institutions also improved their economic growth forecasts for 2024. In particular, according to the IMF and the World Bank, economic growth in Uzbekistan is expected to amount to 5.4 *(0.2 percentage points)* and 5.3 percent *(unchanged),* respectively[1] *(Figure 1.1.2).*

Given continuing geopolitical uncertainty coupled with the expected easing of monetary conditions by leading central banks in the second half of this year, demand for gold will remain strong, driving its price higher. Consequently, export growth is expected to sustain in the second half of the year.

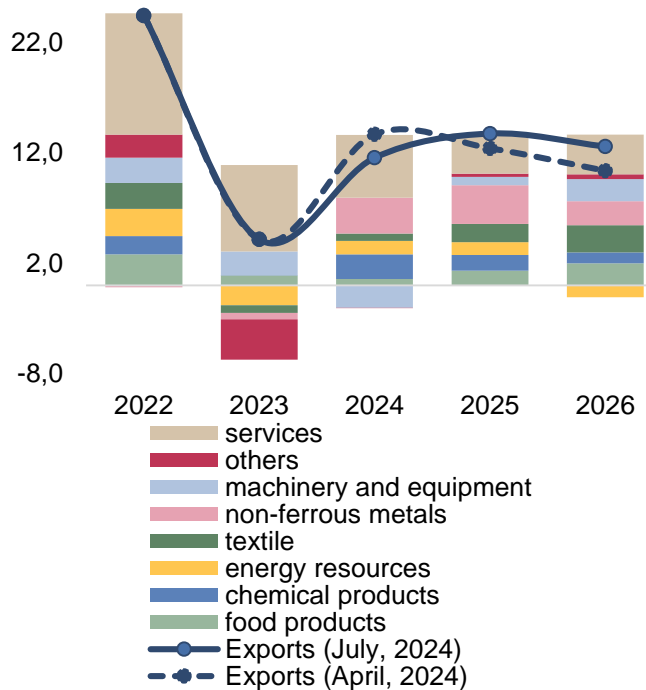**Figure 1.1.3. Non-gold export growth,** *percent*

Figure 1.1.4. Import growth, *percent*
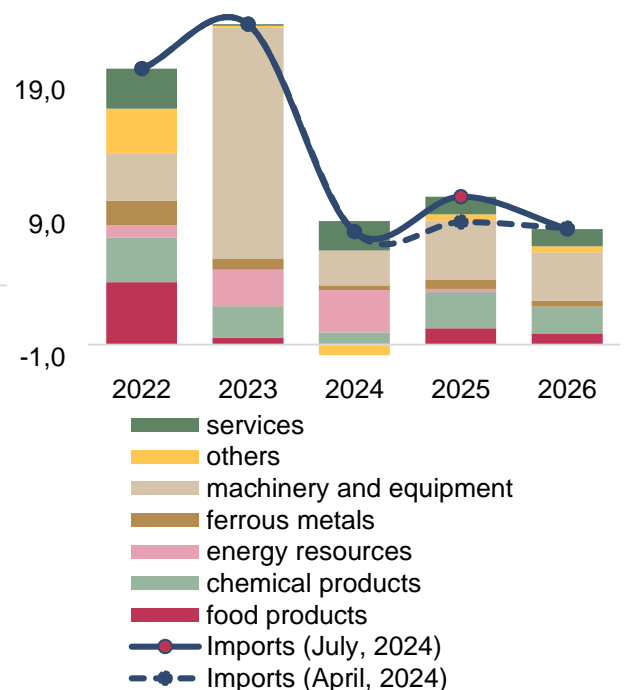
Source: Statistics Agency, CBU calculations.

Elevated price for uranium and copper supports export of these goods. On the other hand, global expectations of higher cotton yields may result in lower cotton price and adversely affect textile export revenue.

Meanwhile, expected higher economic growth in trading partners will enhance external demand for export from Uzbekistan.

[1] IMF Article IV Staff Report, May, 2024 and World Bank's "Global Economic Prospects".

Taking the above factors into account, total export is projected to increase by 9-12 percent while non-gold export will grow by 11-13 percent *(Figure 1.1.3)*.

Global inflation deceleration, relative external normalization, producer price deflation in China, and relatively stable exchange rate increase the probability of no additional pressure on import prices.

Given the current trends, import is expected to grow by 10-12 percent by the end of the year, in line with the previous forecasts *(Figure 1.1.4)*.

In conditions of fiscal consolidation and balancing of credit growth, there may be less pressure on import.

While energy, oil, and services import continue upward dynamics, a growth in machinery and equipment import is expected to stabilize due to high base effect.

Cross-border remittances, a significant contributor to household income, increased by 25.2 percent annually in the first half of the year, substantially higher than the April forecast. Given this trend, previous forecast has been revised up.

Figure 1.1.5. Cross-border remittance forecast, *percent*
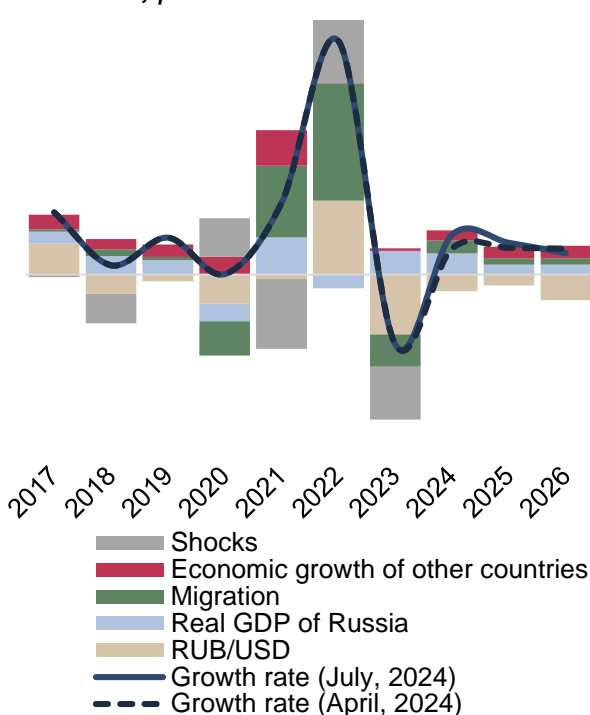
Figure 1.1.6. Real private consumption growth forecast, *percent*

Source: Statistics Agency, CBU calculations.
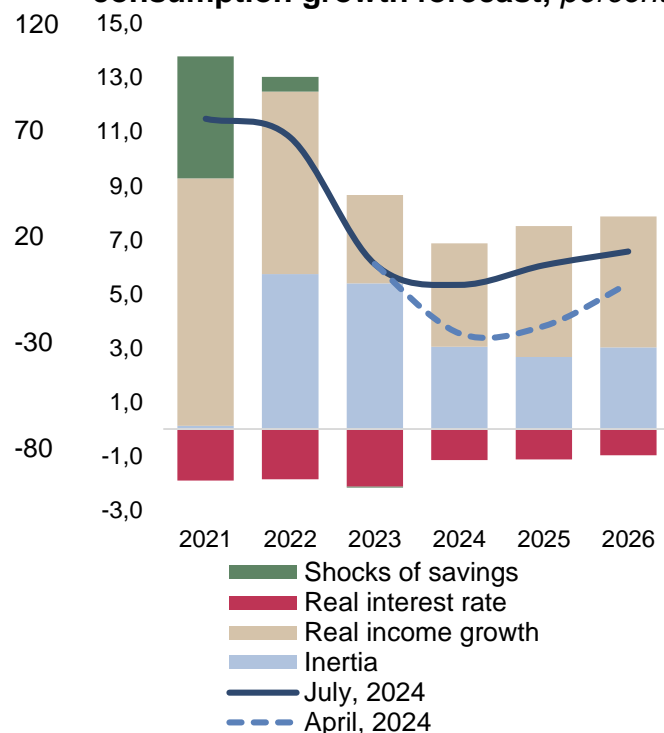
At that, amid stable exchange rates and high economic activity resulting in strong labor demand, as well as expected wage rise in countries

recipients of labor migrants, cross-border remittance inflow is projected to increase by 20-25 percent at the end of this year *(Figure 1.1.5).*

Along with that, given the expected inflation dynamics and increase in household income, real income is expected grow higher than projected in April and, accordingly, private consumption expenditures will increase to a certain extent *(Figure 1.1.6).*

Table 1.1.1. Main macroeconomic indicators
(April's forecasts in brackets)

in percent

Indicators	Actual		Forecast		
	2022	2023	2024	2025	2026
Inflation *(annual, end of period)*	**12,3**	**8,8**	**9** (9-11)	**5-6** (5-6)	**5** (5)
Inflation *(annual average)*	11,4	10	9-9,5 (9-11)	7-9 (7-9)	5-6 (5-6)
Core inflation *(annual, end of period)*	13,8	8,5	6-7 (7-8)	5-6 (4,5-5,5)	4,5-5,5 (4,5-5,5)
Real GDP growth	**5,7**	**6,0**	**5,7-6,2** (5,2-5,7)	**5-6** (5-6)	**5,5-6,5** (5,5-6,5)
Real growth of final consumption expenditures	9,2	5,1	5-6 (4-5)	4,5-5,5 (4,5-5,5)	5-6 (5-6)
- private	*11,4*	*6,1*	5-6 (4-5)	5-6 (5-6)	5,5-6,5 (5-6)
- public	*1,3*	*1,4*	1,5-2 (1,5-2)	1-2 (1-2)	2-3 (2-3)
Fiscal deficit *(as a ratio to GDP)*	4,1	5,5	4 (4)	3 (3)	3 (3)
Export growth	18,4	23,8	9-12 (9-12)	8-10 (8-10)	8-10 (8-10)
Non-gold export growth	*21,6*	*4,2*	*11-13* (12-14)	*10-12* (10-12)	*12-14* (12-14)
Import growth	20,3	24,0	10-12 (10-12)	9-10 (9-10)	8-10 (8-10)
Cross-border remittance growth	2,1 б.	-32,9	20-25 (8-10)	10-12 (11-13)	10-12 (10-12)
Growth in stock of loans	21,4	23,3	15-17 (15-17)	14-17 (14-17)	12-15 (12-15)

Source: CBU calculations.

1.2. External economic outlook

Along with gradually decelerating global inflation as a result of tight monetary policy conducted by leading central banks, economic growth is observed to stabilize.

However, persistently high global services inflation and continued geopolitical tensions are causing a delay in interest rate cuts.

According to the IMF's July forecast, global growth projection has remained almost unchanged compared to the previous forecast, at 3.2 percent for 2024 and 3.3 percent for 2025 *(Figure 1.2.1)*. Forecast for emerging markets and developing economies has been increased by 0.1 percentage point mainly due to higher export growth in China in the first quarter of this year.

Global trade of goods and services, especially in developing countries, is expected to continue expending with a year-end growth of 4.2 percent *(2 times higher than last year)*.

Amid a considerable increase in trade from China to other countries at the beginning of the year and geoeconomic situation in some regions, the World Container Index increased by 2.2 times compared to the beginning of the year.

Interest rate hikes over the last two years resulted in tight financial conditions in global markets.

Meanwhile, there are still high uncertainty regarding future inflationary processes, mainly attributed to persistent services inflation. This, in turn, causes leading central banks to take cautious approach to easing monetary stance.

According to IMF, global inflation will continue decelerating *(Figure 1.2.2)*. In particular, inflation in developed countries is expected to decline more significantly, to 2.7 percent in 2024 and 2.1 percent in 2025. In contrast, there will be slower inflation deceleration in developing countries.

Main pro-inflationary risks in the future include a strong labor market and continued high wage growth, rising global trade barriers and weakening trade flows between countries. As a result, import costs across international supply chains may increase.

Figure 1.2.1. Global inflation, *annual percentage[2]*
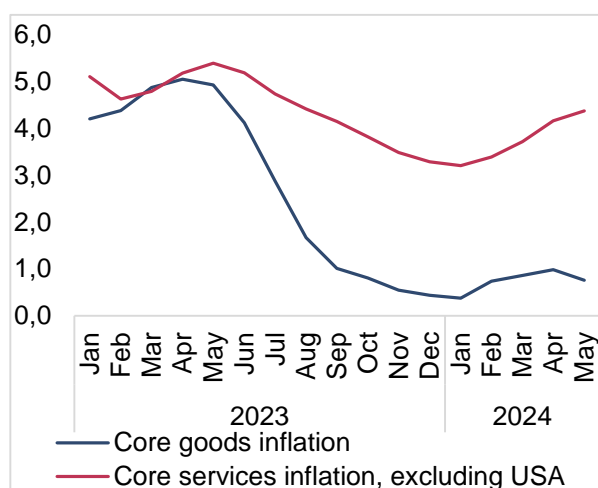
Figure 1.2.2.Projection of global inflation, *annual growth, percent*
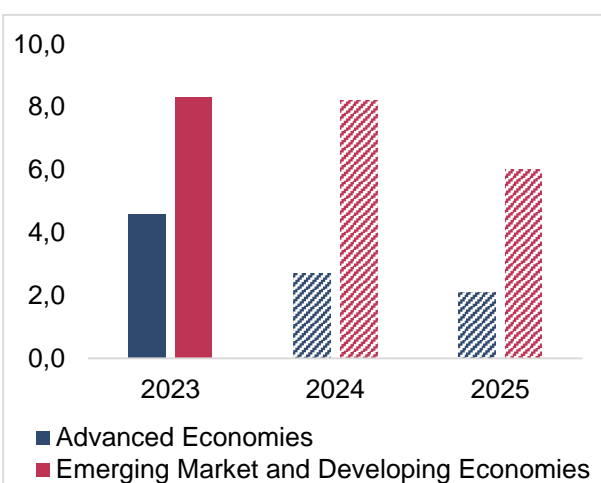
Source: World Economic Outlook, IMF, July, 2024

In the second quarter this year global financial conditions started easing amid a decline in inflation. Particularly, weighted average interest rate of major developed economies[3] decreased by 6 basis points and amounted to 4.7 percent per annum. In the second half of 2024, as inflation further cools down, leading central banks are expected to continue interest rate cuts.

Expectations of a Fed rate cut has shifted from summer to autumn this year. In June, the European Central Bank lowered its policy rate from 4 percent to 3.75 percent per annum.

SOFR and EURIBOR 3-month forward rates, international financial market benchmarks, started declining amidst easing signal of the Fed and an interest rate cut by the ECB.

Furthermore, from July there was a decrease in yields on 10-year sovereign bonds of leading countries. This, in turn, indicates global financial conditions has started easing.

In China, a slowdown in import growth, despite recovering industrial production and export, indicates still weak domestic demand. In order to support domestic demand, China's central bank eased monetary conditions by lowering interest rates by 10 basis points in July[4]. This, in turn, is expected to help the government achieve 5 percent economic growth by the end of the year.

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[2] 3 month moving average
[3] IMF Classification of G7 countries
[4] 1-year prime loan rate was lowered from 3,45% to 3,35%, 5 year loan rate having effect on mortgage cost was cut from 3,85% to 3,75%. Source: People's Bank of China.

In Russia, business activity continues increasing substantially. There is a rapid growth in manufacturing sector, as well as construction, wholesale and retail trade.

Figure 1.2.3. Forecast of real global output growth*, *percent*
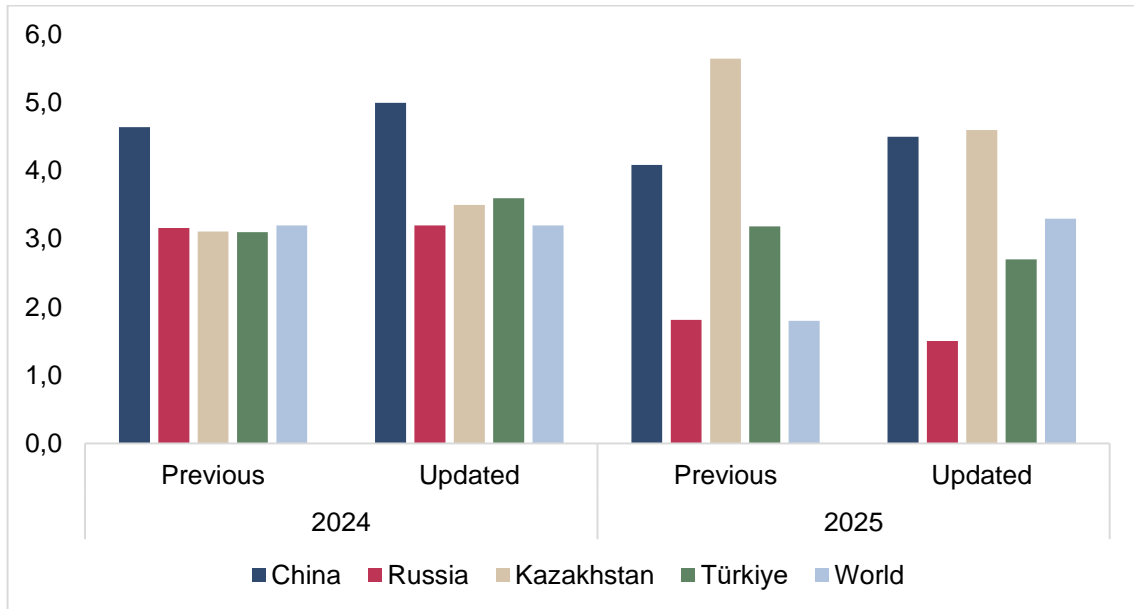
*Previous – April, 2024 forecast, updated – July 2024 forecast.

Source: World Economic Outlook, IMF, July, 2024.

Meanwhile, in June there was a decrease in import due to settlement issues in foreign trade transactions and strengthening of trade restrictions. Real GDP forecast for Russia was kept unchanged at 3.2 percent for 2024 while being lowered to 1.5 percent for 2025.

Annual GDP growth in **Kazakhstan** accelerated to 3.3 percent in the first half of 2024. Taking into account the effects of easing monetary conditions and fiscal stimulus on consumer demand the IMF improved economic growth forecast for 2024 to 3.5 percent. However, in Kazakhstan's foreign trade there was a decrease in import due to weaker domestic demand.

Forecast on **Türkiye's** economic growth for this year was revised upward *(Figure 1.2.3)* with industrial production and service sectors being the key drivers. Despite the tightening of monetary conditions, activity the above sectors remains strong amid extremely high inflation. In the future, economic growth is expected moderately slow down as a result of tight monetary policy effects.

According to forecasts of the US Energy Information Administration, oil price will rise to 89 dollars per barrel in the second half of the year due to

OPEC's decision of production cuts in June and a decrease in oil supply on the world market *(Figure 1.2.4)*.
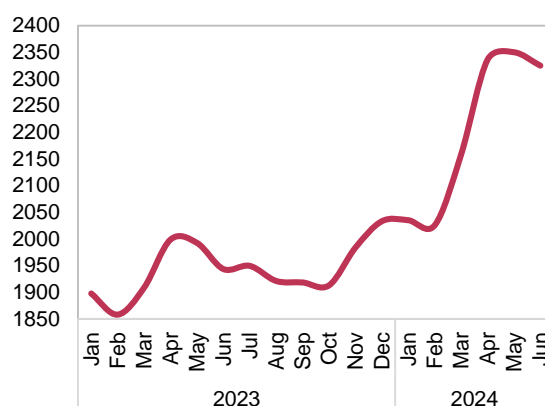
Gold price continue rising as a result of different factors, including increasing geopolitical risks, expectations of Fed rate cut and strong demand by central banks.

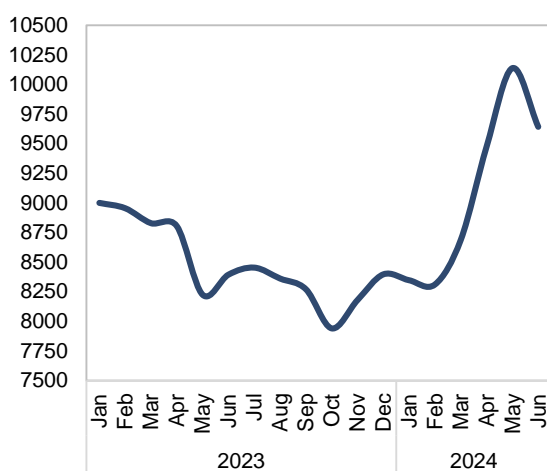**Figure 1.2.6. Brent oil price,** *US dollars per barrel*

Figure 1.2.7. Gold price, *US dollars per troy ounce*
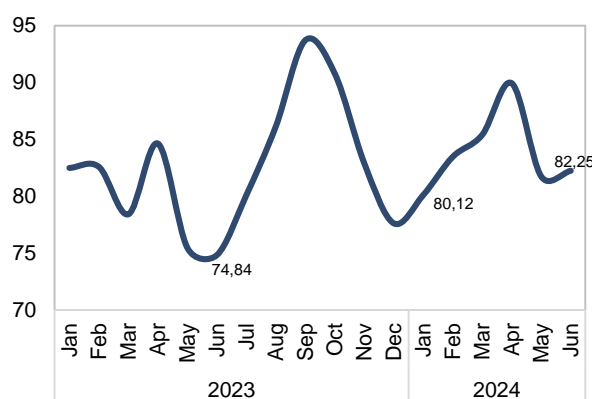
Source: statista.com.

Source: www.lbma.org.

Figure 1.2.8. Copper price, *US dollars per ton*

Figure 1.2.9. FAO index, *percent*

Source: markets.businessinsider.com.
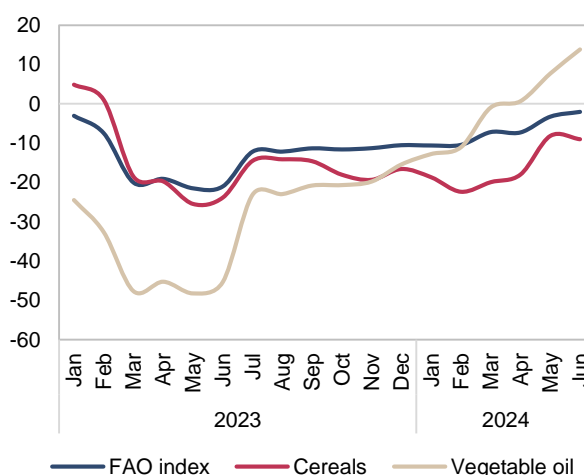
Source: Food and Agriculture Organization of the United Nations (fao.org).

Copper price largely depends on supply and demand factors. China, currently consuming about 30 percent of total copper in the world's real estate and construction sector, has a significant impact on these factors. Therefore, the pace of recovery in the Chinese construction sector and real estate market will be the determining factor for copper price in the coming quarters.

According to FAO dynamics, having significantly decreased in 2023, global food prices resumed rising in 2024 *(Figure 1.2.7)*. At that, grains and vegetable oils are remaining as main contributors to price increases.

According to the July report of the US Department of Agriculture[5], during 2024-2025 world harvest of oil seeds, especially sunflower, slightly dropped largely due to poor yield in in Russia and Ukraine as a result of hot and dry weather at the beginning of the harvest period.

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[5] The World Agricultural Supply and Demand Estimates Report, US Department of Agriculture, July, 2024.

1.3. Monetary conditions and monetary policy outlook

The Central Bank will maintain relatively tight monetary until inflation declines to the 5 percent target and pro-inflationary risks are eliminated.

Measures will be taken to ensure adequately tight monetary conditions through positive real interest rates in the economy in order to reduce inflation *(Figure 1.3.1).*

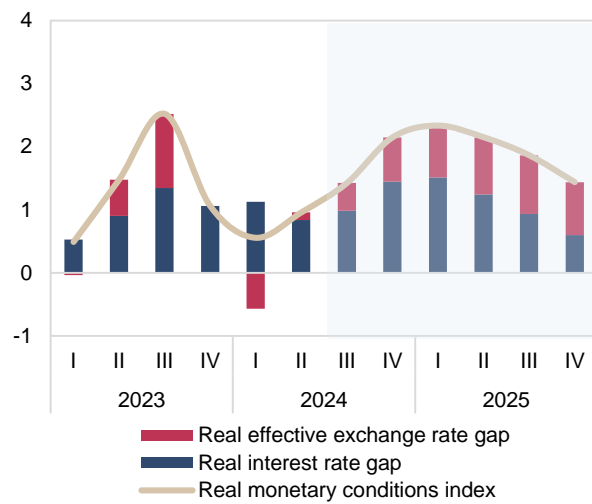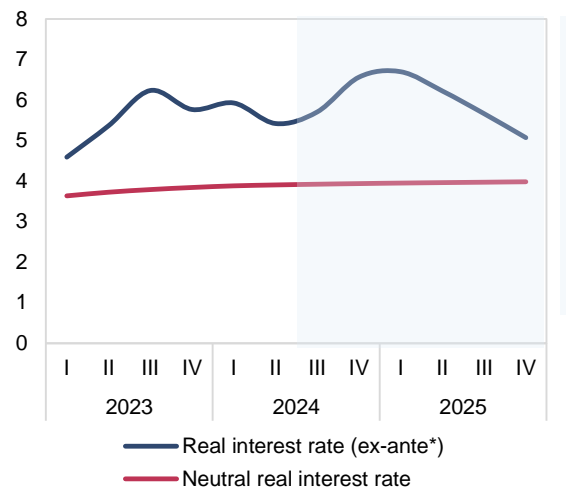**Figure 1.3.1. Real monetary condition index**

Real effective exchange rate gap
Real interest rate gap
Real monetary conditions index

Figure 1.3.2. Real interest rate, *percent per annum*

Real interest rate (ex-ante*)
Neutral real interest rate

Source: CBU calculations.
*Calculated on the basis of rational inflation expectations for the next 6 months.

In recent quarters, despite headline inflation deceleration to 8 percent year-on-year, the policy rate was kept unchanged at 14percent. The main reason for this was expectations regarding liberalization of regulated prices.

Tight monetary conditions and a lower-than-expected increase in inflation due to raised tariffs was reflected in balancing of inflation expectations of economic entities.

The policy rate cut by 0.5 percentage point in July reflects increased confidence in further inflation deceleration and is considered as normalization of the policy rate level kept high in the previous months. At that, there will be no significant effect on the monetary policy stance.

According to the updated forecast of medium-term macroeconomic development, in order to ensure price stability in the economy and bring inflation to 5 percent target monetary conditions are to be maintained relatively until the second half of 2025 *(Figure 1.3.2).*

At that, we will continue a cautious approach to lowering the policy rate in line with inflation deceleration, and increased confidence in a sustained

decline in inflation will be the basis for a decision on rate cut. Complexity of external economic developments complicates consensus on the future dynamics of the policy rate and requires thorough study of internal and external pro-inflationary factors.

In the event of a fundamental shift in the economy associated with inflationary processes and rising risks, the Central Bank may consider not only keeping the policy rate unchanged, but also raising it.

The second indicator of real monetary conditions, the real effective exchange rate (REER), is projected to appreciate to a certain extent having monetary tightening effect in conditions of further positive dynamics in currency inflows.

In general, continued relatively tight monetary conditions in the economy in the medium term will contribute to inflation within the forecast and its decline to the target through curbing consumer demand and increasing attractiveness of deposits in the national currency.

Current policy rate cut will have a lowering effect on other interest rates in the economy with a certain lag *(usually 2-4 quarters).* Meanwhile, as inflation decelerates, a further decline in nominal interest rates will lead to a steady downward trend in interest rates on loans and deposits in the coming years, with no significant effect on real interest rates.

In the coming quarters, it is expected that the total liquidity of the banking system will remain in structural surplus, money market activity and the share of REPO market will increase, deposit growth will remain high, and lending will be balanced.

These expectations are the result of relatively tight monetary conditions, serving to reduce the impact of monetary factors on inflation through balancing aggregate consumer demand in the economy.

1.4. Inflation projection and expectations

According to the updated macroeconomic forecasts for 2024, with stabilizing demand factors in the economy and further decrease in inflationary pressures, inflation is expected to approach the lower bound of the initial projections at the end of the year.

By the end of this year, core inflation is projected to amount to 6-7 percent, while headline inflation will be around 9 percent. A lower estimate of core inflation than the previous forecast, as well as expectations

of lower prices for horticultural products contributed to the downward revision of the forecast.

Downward revision of the inflation projections is attributed to easing of demand-side pressures on inflation due to stabilizing consumer activity as well as decreasing supply risks amid improving internal and external supply factors in the coming quarters.

In particular, by the end of the year, the impact of imported inflation on core inflation is expected to diminish owing to stabilizing food prices and a relative improvement in external conditions.

However, core inflation projection for 2025-2026 remained almost unchanged. Real marginal costs, while having moderating effects on core inflation, are slightly above the April forecast.

Figure 1.4.1. Core inflation forecast, *percent*	**Figure 1.4.1. Headline inflation forecast**, *percent*
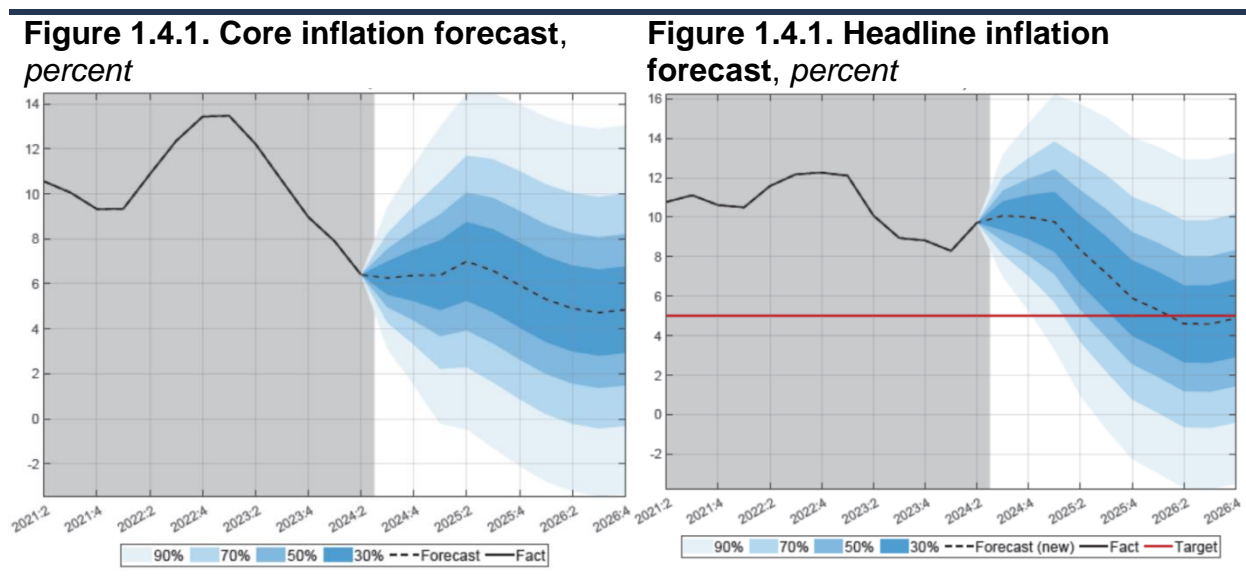
Source: CBU calculations.

According to forecasts, positive output gap will continue narrowing in the coming quarters and return to a neutral level by the end of the year.

Moderation of real wage growth in the second quarter of this year provides conditions for future balancing of gross consumer activity in line with supply factors and easing of price pressure *(Figure 1.4.7).*

Liberalization of energy tariffs is expected to result in structural changes in household consumption expenditures. Meanwhile, optimization of gross consumption expenditures of households serves to somewhat offset secondary effects of rising energy prices.

Amid stabilization of internal and external conditions, supply side factors are improving. Lower prices for imported food, observed in the first half of the year, will serve to stabilize food prices in the coming quarters *(Figure 1.4.8).*

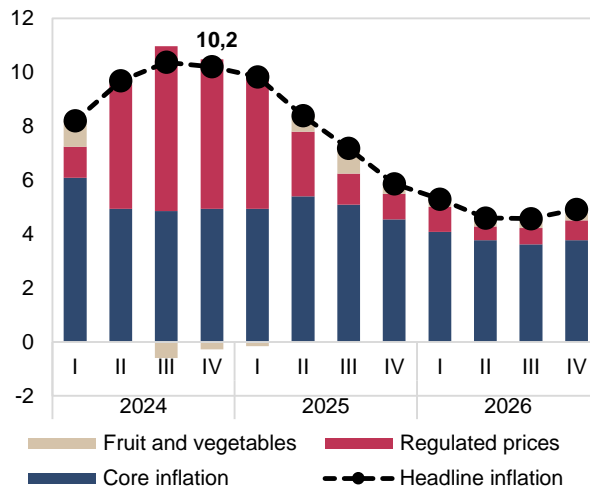**Figure 1.4.3. Decomposition of headline inflation forecast median,** *percent*

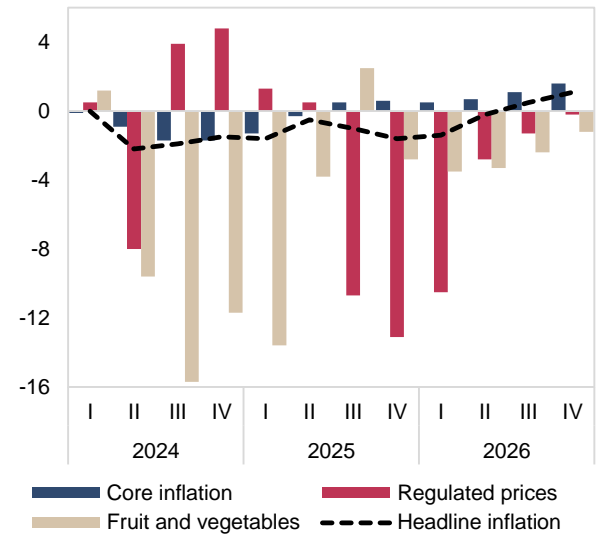**Figure 1.4.4. Difference from April forecast,** *percentage points*

Figure 1.4.5. Decomposition of core inflation forecast median, *percent*
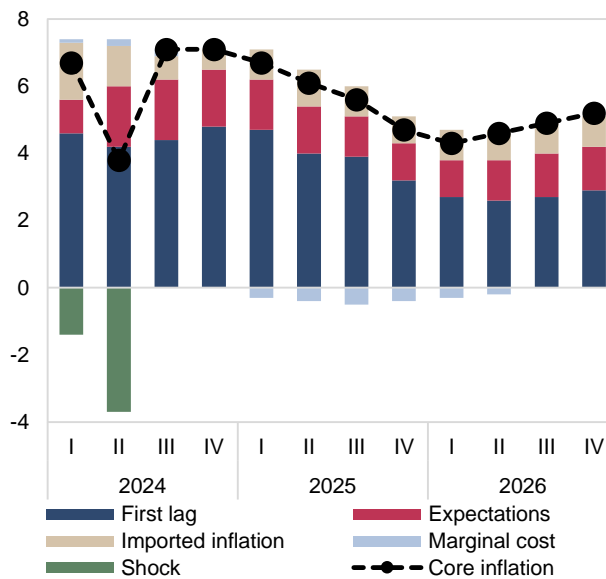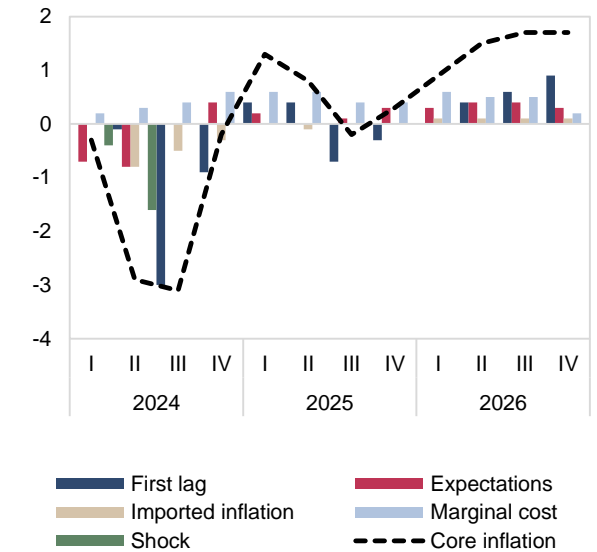
Figure 1.4.6. Difference from April forecast, *percentage points*

Source: CBU calculations.

Furthermore, more favorable than in the previous year winter-spring season of 2024 resulted in a significant decrease in prices for fruit and vegetables in May-June. Until the end of the year, excluding seasonal fluctuations, dynamics of this component will have a downward impact on headline inflation.

There are still some risks associated with external supply factors. Particularly, global vegetable oil and meat prices are rising and these trends are expected to continue in the coming quarters.

Along with that, there remains the probability of delayed secondary effects of higher core services inflation and regulated price inflation.
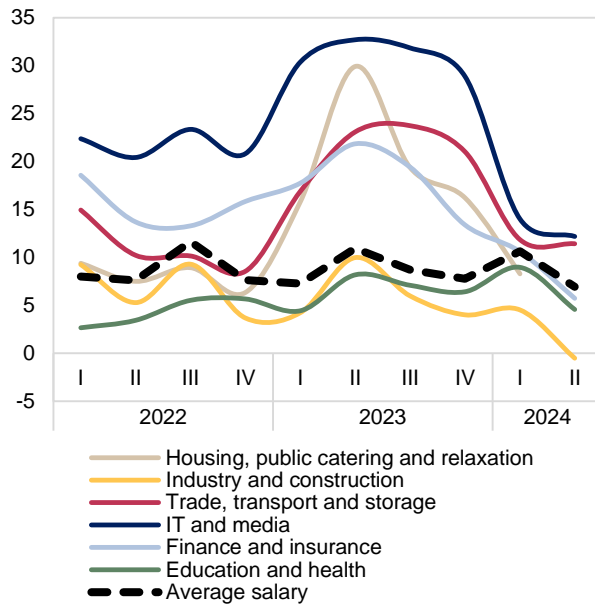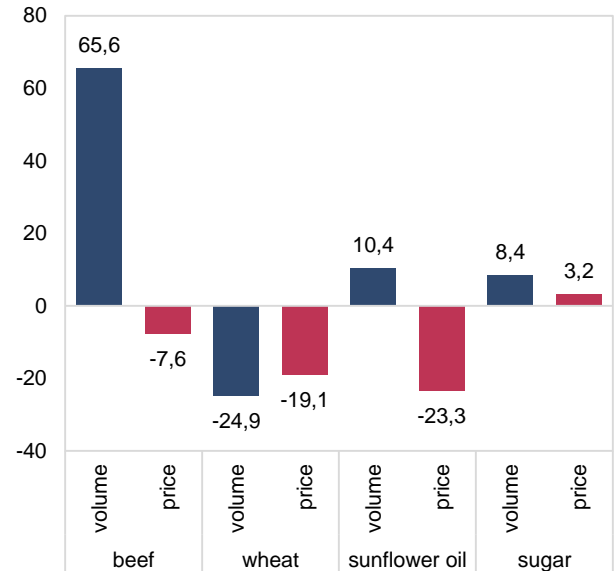
Figure 1.4.7. Real growth in average wages, *percent*

Legend:
- Housing, public catering and relaxation
- Industry and construction
- Trade, transport and storage
- IT and media
- Finance and insurance
- Education and health
- Average salary

Figure 1.4.8. Volume and price change in imported staple food

Source: CBU calculations.

Inflation expectations

In the second quarter of 2024, there were fluctuations in inflation expectations of households and business entities.

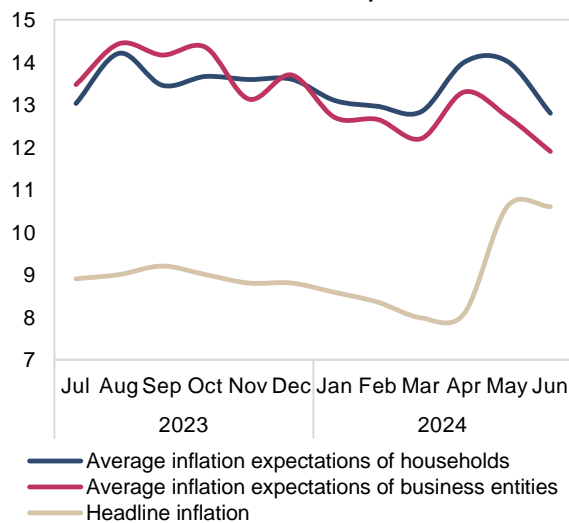**Figure 1.4.9. Inflation expectations for the next 12 months**, *percent*

Legend:
- Average inflation expectations of households
- Average inflation expectations of business entities
- Headline inflation

Figure 1.4.10. Factors of inflation expectations
percentage share

	2023						2024					
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Increase in cost of utility services	32	27	34	36	38	37	39	39	42	55	57	54
Price increase in energy resources	36	43	45	49	43	47	49	54	50	47	49	47
Exchange rate movements	59	70	65	59	58	60	55	56	61	55	49	41
Monopoly and price gouging	31	33	32	31	31	31	32	30	35	29	30	28
Increase in transportation cost	21	22	23	29	26	29	29	33	29	28	28	28
Increase in wages and benefits	32	36	30	24	38	33	32	28	29	23	24	26
Food price increase	24	23	26	25	24	24	24	22	26	25	22	21

Source: CBU calculations.

After rising to 14 percent in April amid energy tariff increase, inflation expectations of households for the next 12 months fell to 12.8 percent by June. Inflation expectations of business entities decreased from 13.3 percent in April to 11.9 percent in June *(Figure 1.4.9).*

Major contributors to the decline in inflation expectations of households were food prices including prices for fruit and vegetables, as well as stabilization of the exchange rate of the soum *(Figure 1.4.10).*

1.5. Uncertainties and risks in macroeconomic development

External risks and uncertainties

As global services inflation remains relatively high, there are risks to a slowdown in global inflation, potentially leading central banks to keep interest rates elevated. This, in turn, may cause fiscal and financial risks, complicating external borrowing and increasing the cost of servicing external debt.

Ongoing geopolitical tensions also pose risks of disruptions to global trade and supply chains. Notably, rising costs of container transportation[6] indicate continuing upward pressure on import prices.

Given high uncertainty, rapidly fluctuating prices on world commodity markets and a potential slowdown in economic activity in major trading partners may have a negative effect on national export earnings.

Internal risks and uncertainties

Continuing high investment activity and fiscal spending in the economy may generate additional pressure on prices through increasing investment demand and household incomes in the future.

In addition, upward trends in the dynamics of remittances also raise expectations of stable growth of households' real incomes. Although rising incomes are one of the main drivers of economic growth, this may increase inflationary pressure by boosting consumer demand.

Current core services inflation above goods inflation indicates that along with supply side factors pushing inflation up, there are also demand side factors. This, together with the above factors, requires strengthening of measures aimed at ensuring downward inflation dynamics in the future.

From August 1, 2024, the price cap *(3,750 soums)* set for the retail methane price at vehicle filling stations is expected to expire. As a result of a higher revision of this cap or liberalization, further price increases due to strong demand may have an upward impact on prices for transportation services, exerting substantial pressure on transportation and delivery costs in the future.

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[6] Drewry World Container Transportation Composite Index doubled in May-June this year, increasing from 2.7 thousand US dollars to 5.8 thousand US dollars per container.

To mitigate the impact of these factors and risks on inflation, tight monetary and fiscal policies, as well as liberalization and diversification of foreign trade and building reserves for the winter-spring period are essential.

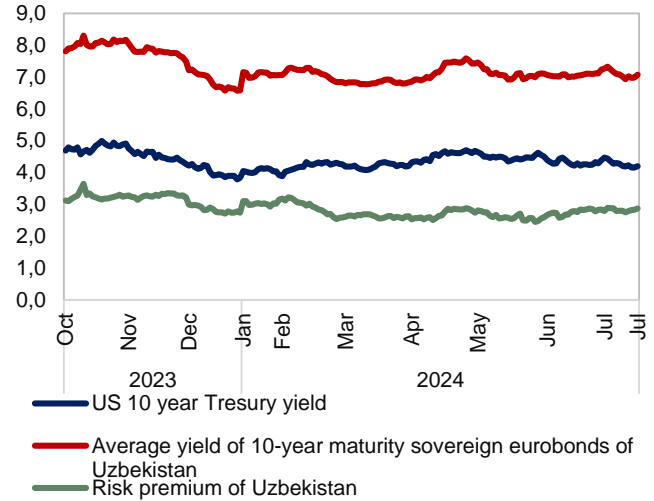*Box 1.*

Dynamics and factors of sovereign bond yields

Given higher interest rates in the world, yields on sovereign bonds are developing high indicating that global financial conditions still remain tight.

**Figure 1. Dynamics of Emerging Markets Bond Index (EMBI),** *percent*

Figure 2. Yields of U.S. Treasuries and Uzbekistan's sovereign Eurobonds, and risk premium, *percent*

— US 10 year Tresury yield
— Average yield of 10-year maturity sovereign eurobonds of Uzbekistan
— Risk premium of Uzbekistan

Source: Bloomberg.com   *Source: investing.com, Bloomberg.com*

According to JP Morgan's EMBIV[7] Index *(Figure 1)*, volatility of yields on emerging markets' bonds has increased significantly since October last year due to elevated geopolitical tensions in the Middle East, as well as Fed interest rates unchanged for an extended period of time. Dynamics of this Index indicates that the level of uncertainty in developing countries is assessed by investors as high.

Figure 3. FED policy rate dynamics and its expected trajectory, *percent*
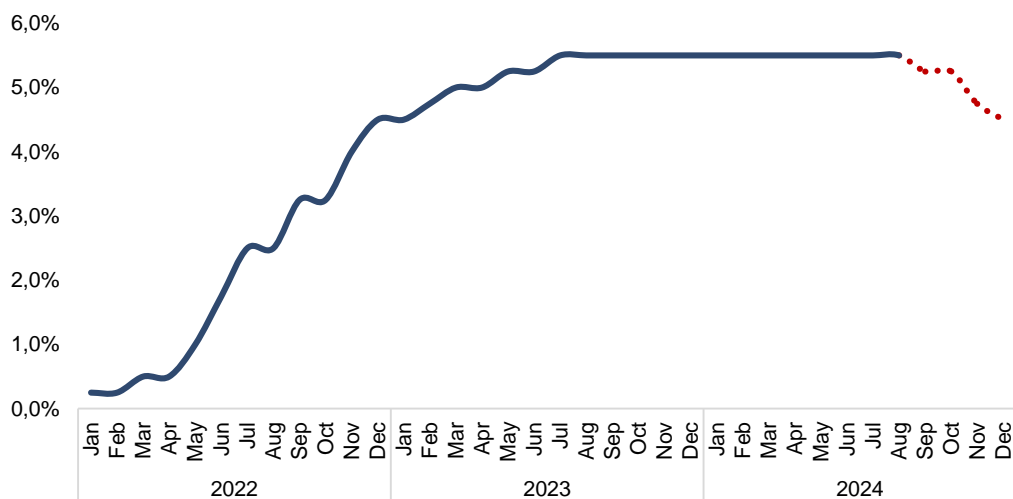
Source: Expectations of financial market participants

Higher interest rates along with high risk premiums complicate external borrowing for developing countries.

Since the beginning of the year, yield on 10-year Sovereign Eurobonds *(7 percent)* and risk premium *(2.9 percent)* of Uzbekistan have remained unchanged *(Figure 2)*. This indicates investors' confidence in the country's macroeconomic stability owing to relatively stable exchange rate and adequate gold and foreign currency reserves.

With inflation in the US decelerating in recent months *(2.6 percent)*[8], markets are optimistic about the Federal Reserve soon moving to monetary easing *(Figure 3)*. As a result, the price of circulating bonds is rising while yields are decreasing.

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[7] EMBIV (Emerging Markets Bond Index Volatility) is an indicator of the volatility of emerging market bonds included in the EMBI index (Uzbekistan is not included). The index measures the degree volatility, informing investors about the risk associated with those countries' bonds.
[8] US Personal Consumption Expenditure (PCE) deflator, May 2024 data. Source: www.bea.gov.

Box 2.

Differences in monetary policy measures of leading central banks and their impact on the world economy

Global monetary conditions are mainly influenced by the monetary conditions of developed countries (the United States, the European Union, etc.). In turn, global monetary conditions have direct and indirect impact on other economies. The extent of this influence depends on the degree of a country's integration into the global economy.

In 2022, in response to a significant acceleration of global inflation, leading central banks implemented tight monetary policy, continued until the second half of 2023.

By now, in many developed countries, inflation deceleration and balancing of internal economic conditions allow moving to the monetary easing cycle.

In particular, leading central banks maintained tight monetary conditions in the first quarter of 2024, whereas by the end of the second quarter they started adjusting monetary conditions towards easing.

Figure 1. Dynamics of leading CBs' key rates, percent
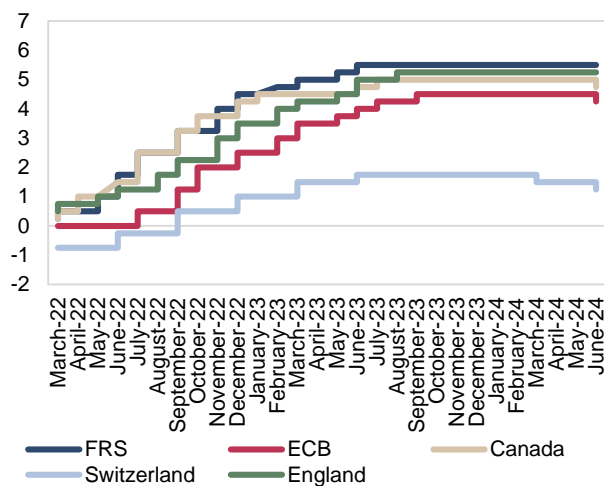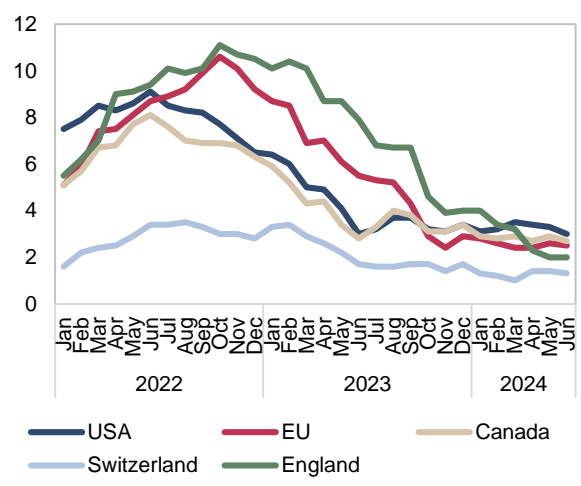
Figure 2. Inflation dynamics in advanced economies, percent

Source: tradingeconomics.com

Specifically, in June, the European Central Bank and the Canadian Central Bank decided to cut their key rates by 0.25 percentage points. The Swiss Central Bank lowered the key rate by 0.25 percentage points earlier in March, and by another 0.25 percentage points to 1.25 percent in June (*Figure 1*).

In contrast, the Federal Reserve System continues being cautious in moving to monetary easing, explaining this by strong economic growth driven by aggregate consumer demand in the economy and the need to ensure that inflation moves to a downward trend.

Given inflation deceleration, economic growth rates in the European Union and other developed countries are much lower than in the United States. This, in turn, allow them to ease monetary conditions and thereby support the economy.

The differences in interest rate decisions in the United States and European countries also depend on the nature of their inflationary processes. In the US, inflation was mainly driven by demand-side factors, whereas in Europe, energy prices and supply-side factors exerted pressure on inflation. This, in turn, is reflected in the indicators of economic activity: the US experienced a significantly higher economic growth rate compared to the Eurozone.

In conditions of continued tight monetary policy by the Federal Reserve System while monetary conditions in other developed countries are easing, an increase and longer persistence of the difference between the key rates may adversely affect the stability of the global financial system.

Figure 3. Effect of difference between the Fed interest rate and key rates in other advanced economies on exchange rate, *percent*
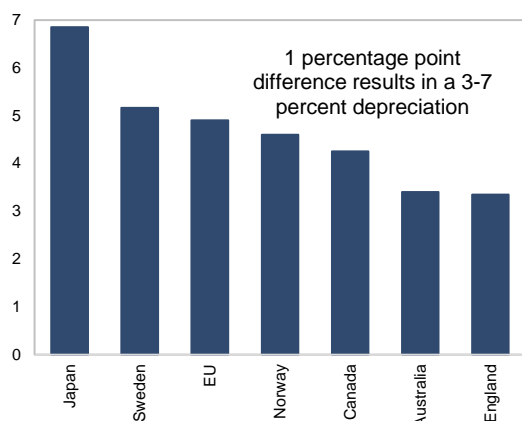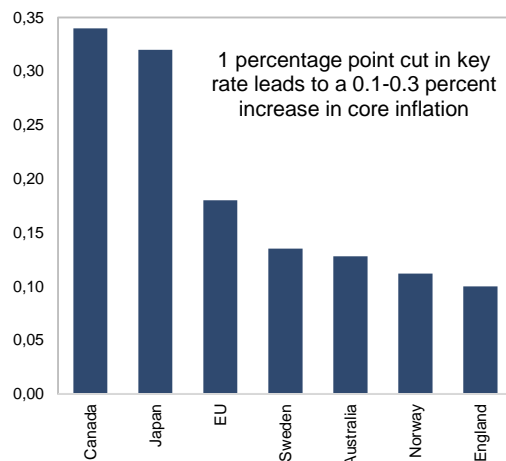
1 percentage point difference results in a 3-7 percent depreciation

Figure 4. Effect of key rate cut on core inflation in advanced economies, *percent*

1 percentage point cut in key rate leads to a 0.1-0.3 percent increase in core inflation

Source: Goldman Sachs calculations

The difference between interest rates influences the economy primarily through the currency channel, leading to an appreciation of the US dollar against other currencies *(depreciation of other national currencies).* At that, exchange rate depreciation in other countries may, in turn, exert inflationary pressure by increasing import prices *(Figures 3-4).*

Figure 5. Forecast of Fed rate and key rates in advanced economies, percent
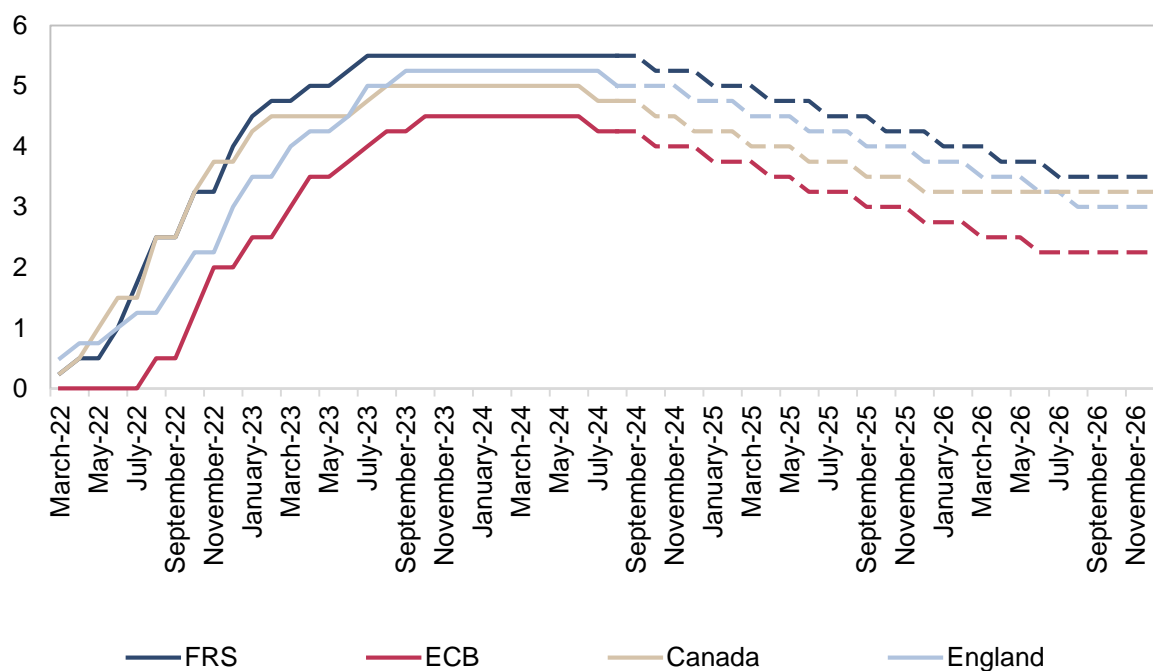
Source: Goldman Sachs calculations

Moreover, large interest rate differences cause foreign investors to withdraw their capital to markets with higher interest rates (e.g., the United States). With the dollar appreciation, there may be difficulties in servicing external debt raised in many developing countries.

Market participants expect the Fed to cut interest rates twice (September, December) and the ECB to lower the key rate 2 more times (September, December) until the end of this year *(Figure 5).*

It should be noted that amid geopolitical tensions in the world, wide use of artificial intelligence capabilities in practice and increasing budget expenditures by states (especially for defense and development of green economy), leading central banks consider it inappropriate to reduce key interest rates to pre-pandemic levels, emphasizing that the level of neutral interest rates in economies has increased.

Lowering interest rates by leading central banks will accelerate global economic growth and ease conditions for external borrowing.

Box 3.

### Analysis of the relationship between inflation expectations, perceived and actual inflation

Inflation expectations of economic agents are considered one of the key factors of inflation dynamics and households' decisions on consumption and savings, as well as of business entities' price policy, decisions on investment and wages.

There are two types of inflation expectations: **rational** (forward-looking) and **adaptive** (backward-looking). Rational expectations mean that economic agents form their price expectations based on all data available. In contrast, expectations are considered adaptive when they are shaped mainly on the basis of price movements in the previous period.

According to international experience, empirical analysis show there is positive relationship between inflation, inflation expectations and perceived inflation, moreover the fact that inflation expectations are highly correlated with inflation and the level of perceived inflation indicates that expectations are adaptive.

Statistical analysis shows that in the case of our country inflation expectations of households and business entities are positively correlated with the inflation rate *(Figure 1)*.

Figure 1. Inflation expectations and perceived inflation of households, headline inflation rate and their correlations
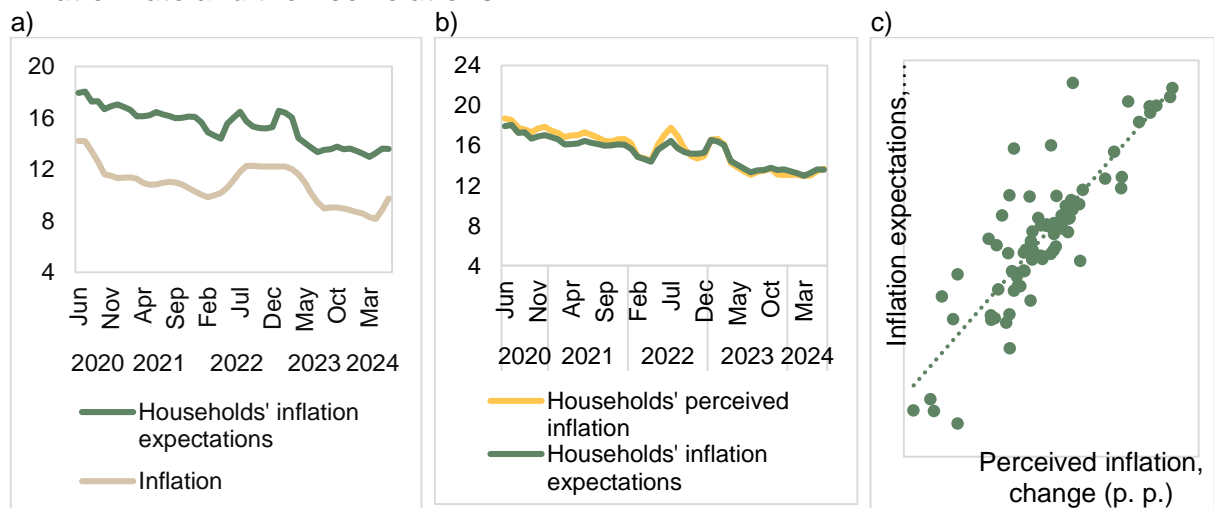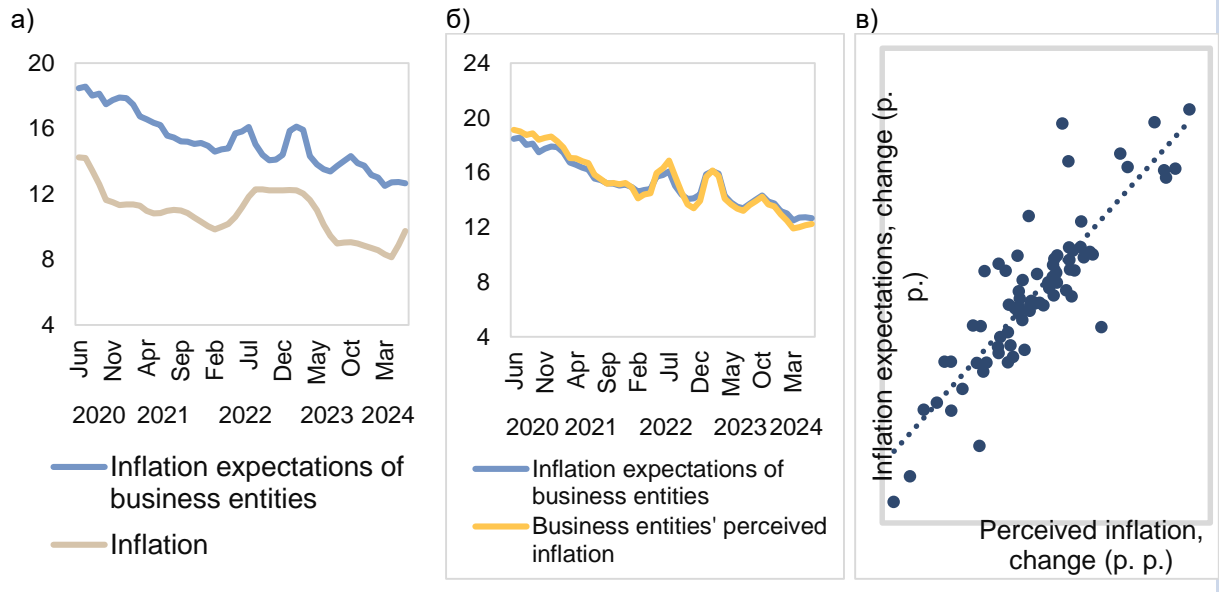

Source: CBU calculations.

According to calculations, correlation between inflation expectations of households and business entities for the next 12 months and the level of perceived inflation for the last 12 months amounted to 0.86 and 0.87 respectively. This high correlation means that price expectations of households and businesses in Uzbekistan are adaptive. In other words, households and businesses base their price expectations on the current price level.

In particular, the formation of inflation expectations significantly exceeding the headline inflation and inflation target is attributed to the adaptability of expectations in our country.

It is worth noting that anchoring inflation expectations of economic entities by central banks is crucial in order to achieve inflation target. At this, anchoring expectations means that central banks influence expectation dynamics by providing detailed information on inflation outlook, expected inflation risks and monetary policy

measures to address their effects. To effectively influence them, expectations must be rational and based on the above information.

Figure 2. Inflation expectations and perceived inflation of business entities, headline inflation and their correlations

а)

б)

в)

Inflation expectations of business entities

Inflation

Inflation expectations of business entities

Business entities' perceived inflation

Inflation expectations, change (p. p.)

Perceived inflation, change (p. p.)

Source: CBU calculations.

In anchoring inflation expectations of households and business entities, consistent implementation of measures to ensure price stability by the Central Bank and the Government, transparency and focus of decisions on the medium term perspective, as well as timely provision of relevant information to market participants, stimulate the formation of rational expectations among households and businesses.

II. CURRENT MACROECONOMIC ENVIRONMENT

2.1. Domestic economic activity and aggregate demand

In the first half of 2024, economic growth accelerated mainly driven by production and investment activity. A substantial increase in cross-border remittance inflows served to boost household incomes and generate stable consumer demand.

Meanwhile, during this period, there was a higher increase in budget revenues and a slowdown in fiscal expenditure growth. Foreign trade dynamics continued balancing having positive effect on the exchange rate.

Economic growth. In the II quarter of 2024, economic growth continued accelerating, and at the end of the first half of the year, real GDP growth amounted 6.4 percent year-on-year *(Figure 2.1.1)*.

Key supply-side drivers of economic growth were industry, construction and services. At that, the significant contribution of the service sector, observed in recent years, started gradually decreasing amid high growth rates of industry and construction. *(Figure 2.1.2)*.

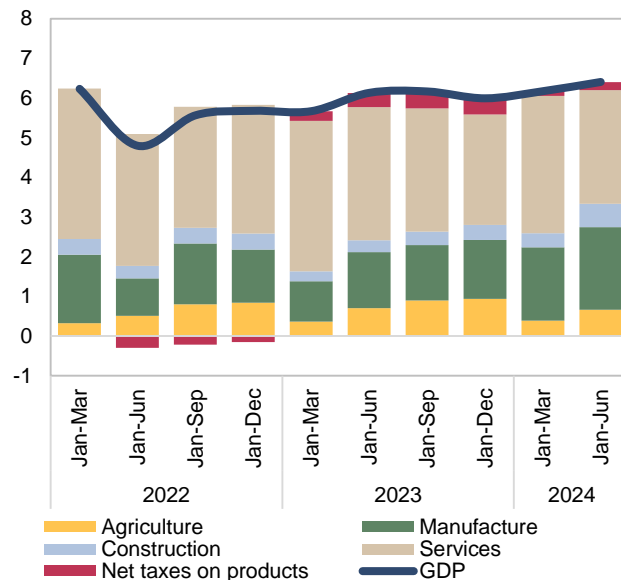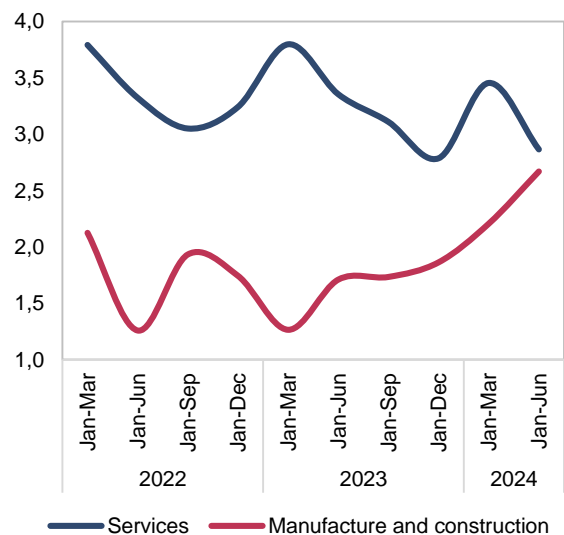**Figure 2.1.1. Decomposition of GDP growth by production method,** *percentage points*

Figure 2.1.2. Contribution of major components to GDP growth, *percentage points*

Source: Statistics Agency

By the end of the first half of the year, the growth of the industrial and construction sectors accelerated compared to the corresponding period of the previous year, significantly exceeding the pace of GDP growth. Particularly, construction sector expanded by 10.1 percent in real terms,

while real growth of industry amounted to 7.8 percent largely contributed by automotive, textile and metallurgical industries.

Investment activity supporting aggregate demand continues increasing *(66.3 percent real growth)* largely through foreign direct investment and unsecured external credits. Most of the investments are allocated to the manufacturing industry. Meanwhile, investments in the mining industry also increased significantly during the observed period *(Figure 2.1.3)*.

Despite the high growth in construction, the share of investments in this sector, including housing construction, slightly decreased. In addition, wage increase in construction slowed down, falling below the average wage growth in the economy.

Consumer activity remains consistently strong. Retail trade turnover *(8.4 percent)*, catering *(11.4 percent)* and import of tourism services *(61.9 percent)* continue increasing rapidly *(Figure 2.1.4)*. Remittance dynamics and fiscal stimulus are expected to be factors supporting consumer activity in the future.
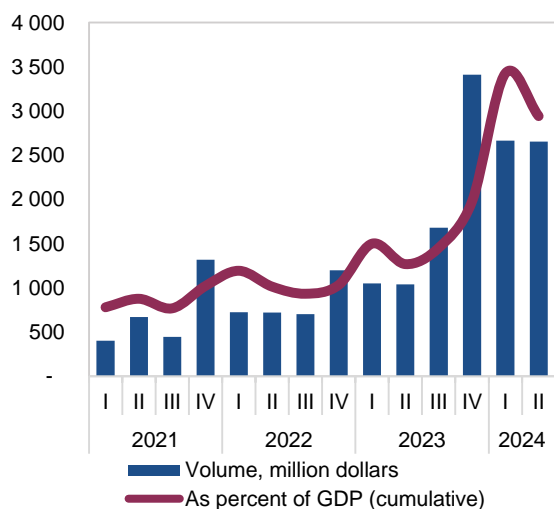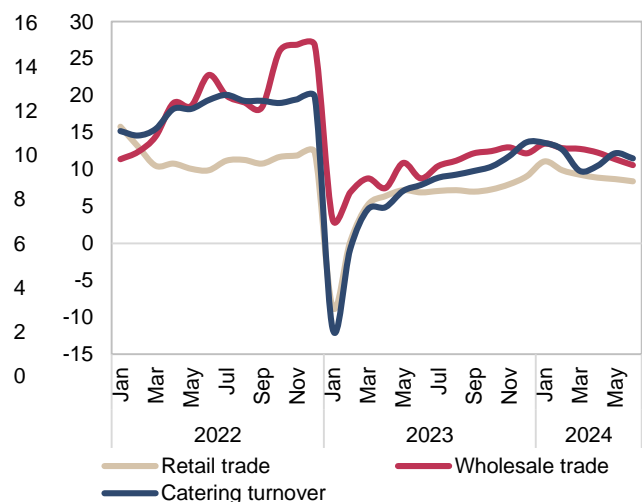
Figure 2.1.3. FDI dynamics

Figure 2.1.4. Real growth of trade and catering turnover, *percent*
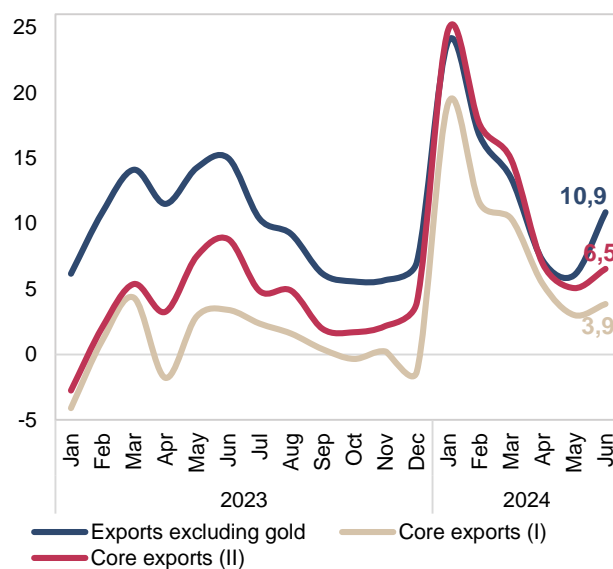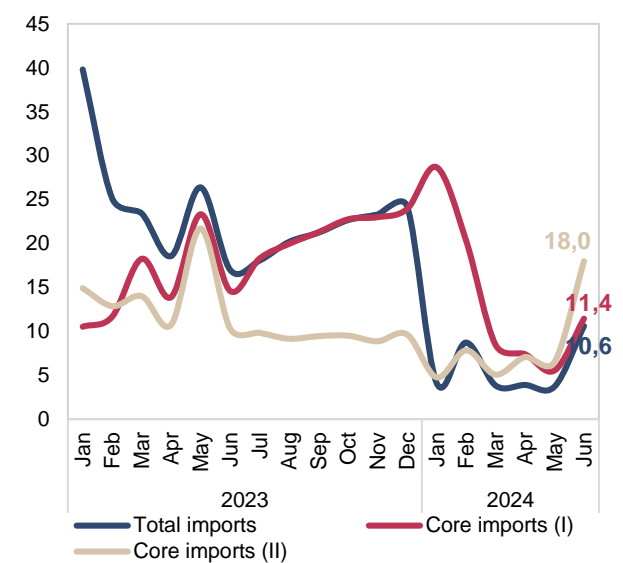

Source: CBU calculations based on data from the Statistics Agency

In the first half of the year, total export grew by 5.5 percent with 10.9 percent increase in export excluding gold. Core export is mainly driven by strong economic growth in major trading partners, favorable prices on global markets *(uranium and copper)* and demand for services *(tourism and information technology)*. On the other hand, there is a decline in some components of goods such as textiles, non-ferrous metals *(zinc)*, ferrous metals, machinery and equipment *(Figure 2.1.5)*.

In June, import growth accelerated reaching 10.6 percent at the end of the first half of the year. Key contributors to an import increase were energy resources and services *(Figure 2.1.6)*.

In January-June this year, total remittance inflow amounted to 6.5 billion dollars, increasing by 25 percent compared to the same period last year. This high growth is mainly attributed to relatively stable exchange rates, rising wages, strong economic activity and demand for labor in most in countries major recipients of labor migrants.

Figure 2.1.5. Export growth, *percent*

Figure 2.1.6. Import growth, *percent*

Source: CBU calculations based on data from the Statistics Agency
Note: Core export (I) – export excluding gold and services
*   Core export (II) – export excluding gold and travels*
*   Core import (I) – one-time import excluding goods (planes and buses)*
*   Core import (II) – import excluding machinery and equipment*

According to preliminary data, state budget deficit in the first half of the year amounted to 29 trillion soums. At that, revenues increased by 18.3 percent year-on-year to 121 trillion soums, while expenditure reached nearly 150 trillion soums *(16.0 percent increase)*. Yet, expenditure dynamics remains above the rate required to keep the fiscal deficit at a moderate level *(Figure 2.1.7)*.

Amid market expectations of easing of financial conditions in the second quarter, the budget financing was partially reallocated from domestic to external sources. In May, there were placed Euro bonds in the amount of 1.55 billion dollars.

Given the current dynamics of foreign trade, investment inflows as well as the effects of debt instruments, the exchange rate appreciated by

0.5 percent in the second quarter and depreciated by 1.8 percent since the beginning of the year.

Since the beginning of this year, the REER index has appreciated by 0.5 percent. In general, REER was relatively stable in the current quarter, and higher price dynamics in major trading partners due to higher energy prices were partially offset by nominal exchange rate differences *(Figure 2.1.8).*

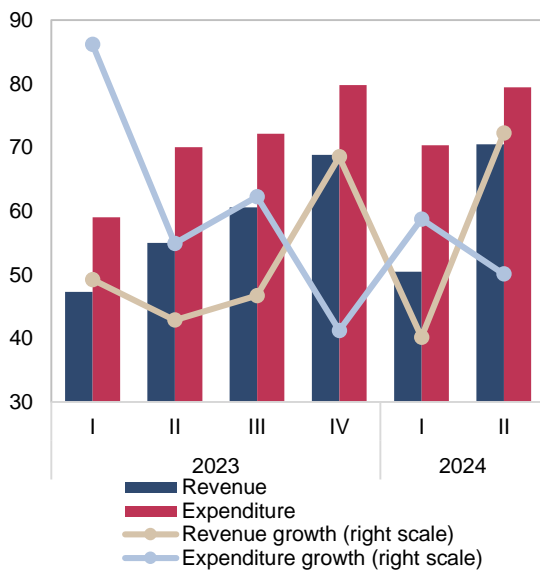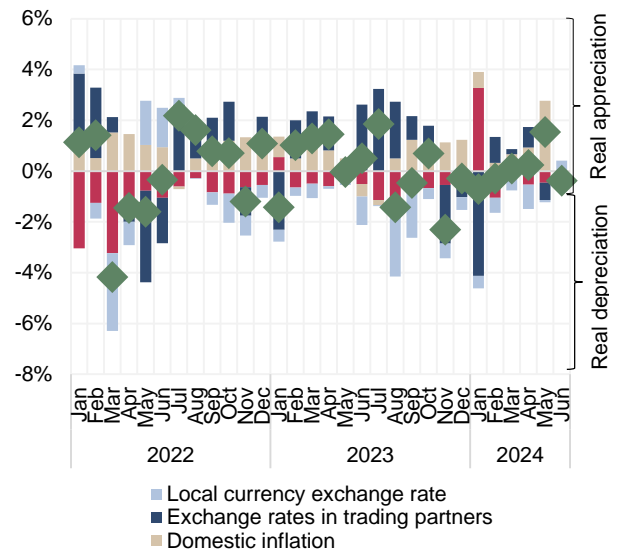**Figure 2.1.7. State budget parameters of the state budget,** *percentage of GDP*

Figure 2.1.8. REER decomposition, *percentage points*

Source: Ministry of Economy and Finance, CBU calculations

2.2. Inflation dynamics

After declining in the first quarter of 2024, headline inflation accelerated in the second quarter due to the introduction of a value-added tax on some goods and services and an increase in regulated prices.

However, monetary conditions remained relatively tight during this period, contributing to the downward trend in core inflation at the beginning of the year.

In the second quarter of 2024 headline inflation shifted to an upward trend and increased by 2.6 percentage points, amounting to 10.6 percent in June *(Figure 2.2.1).*

This increase was mainly due to energy price increases for households. Excluding these price effects, headline inflation amounted to 7 percent year-on-year.

High crop yields sharply boosted supply in the consumer market and resulted in a price fall for fruit and vegetables. Hence, inflation of fruit and vegetables slowed down to 1.1 percent year-on-year at the end of the quarter *(Figure 2.2.2).*

Figure 2.2.1. Dynamics of annual headline and core inflation, *percent*
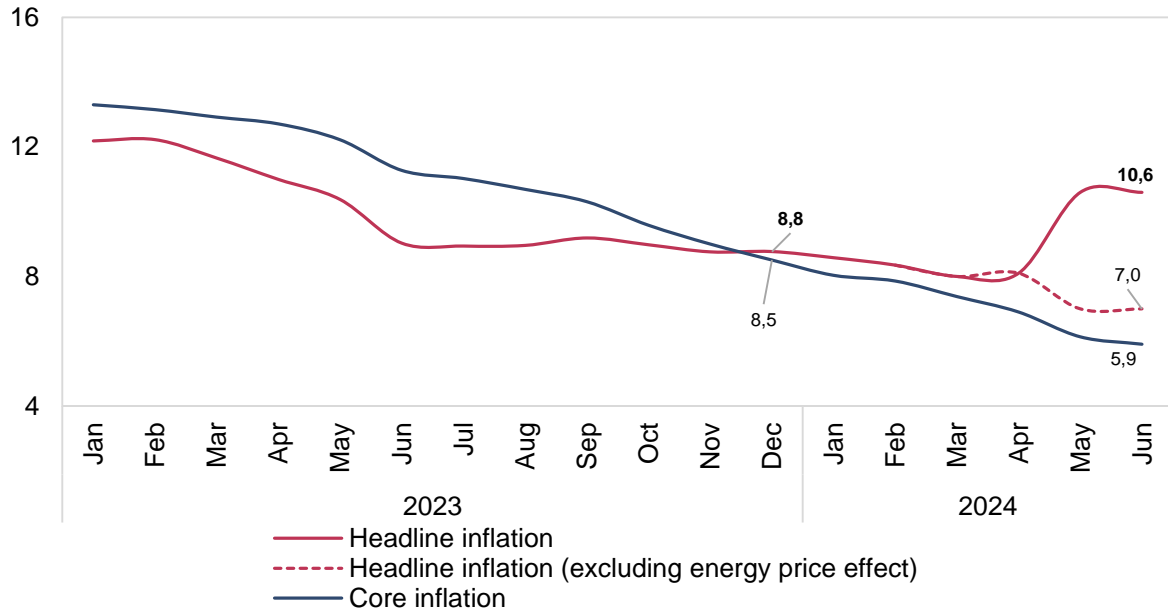
Source: CBU calculations based on data from the Statistics Agency

Core inflation further decelerated in the second quarter decreasing by 1.5 percentage points and amounting to 5.9 percent year-on-year. Food prices were a key contributor to the core inflation decline while non-food and services inflation slightly accelerated.

Meanwhile, the slowdown in core inflation can be attributed to diminishing influence of monetary factors. In addition, stabilization of the world market and external inflation indicates that the impact of imported inflation on domestic prices is easing.

Core food inflation fell significantly from the beginning of the year and amounted to 4.2 percent year-on-year *(Figure 2.2.3)* mainly due to a considerable decrease in prices for grain products and eggs. There was also a slowdown in price increase of meat, milk and sugar products.

Core non-food inflation witnessed a marginal increase and amounted to 6.3 percent year-on-year in the second quarter. Higher fuel prices and introduction of value added tax on medicines from April had an upward pressure on this inflation component, while price changes in clothing, construction goods and household goods had a downward effect.

Given an increase in prices for medical and educational services, core services inflation also accelerated amounting to 9.3 percent year-on-year in June. Strong consumer demand for the above services generates upward price pressures.

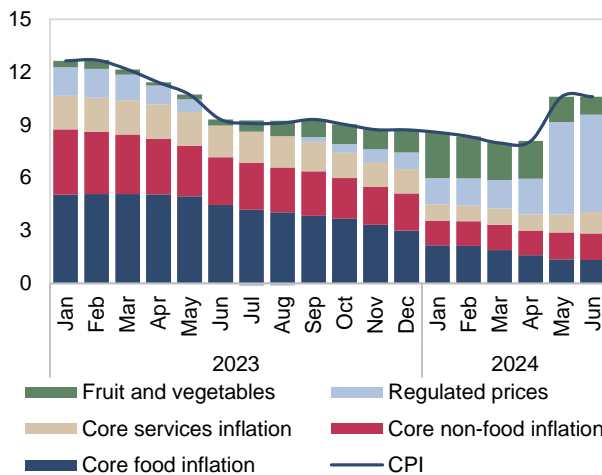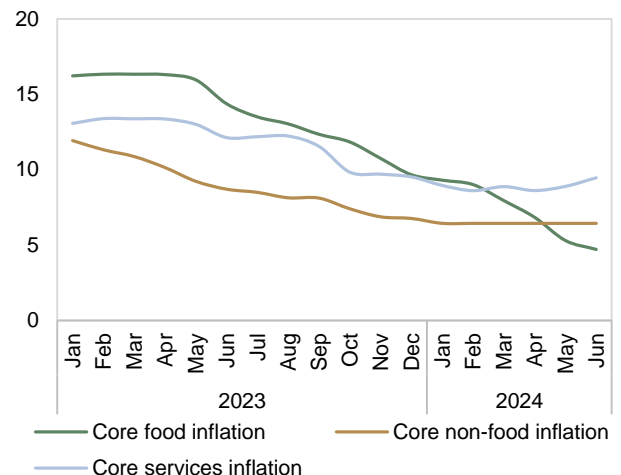**Figure 2.2.2. Headline inflation decomposition,** *percentage point*

Figure 2.2.3. Dynamics of core CPI components, *percent*

Source: CBU calculations based on data from the Statistics Agency.

There is also downward trend in alternative indicators of core. In particular, trimmed inflation and CPI median have been declining since the beginning of the year *(Figure 2.2.4)*.

Figure 2.2.4. Dynamics of alternative indicators of core inflation, *percent*
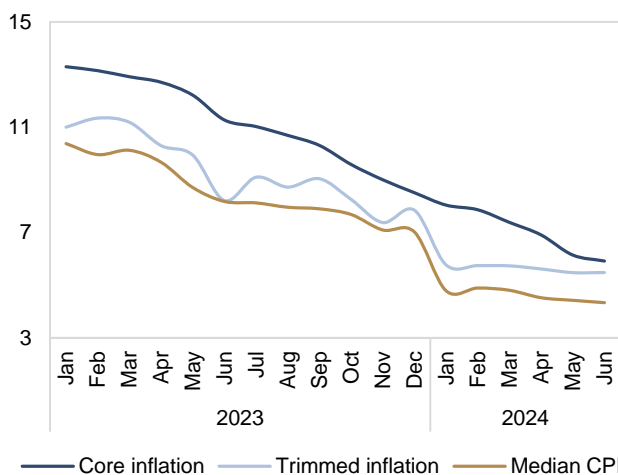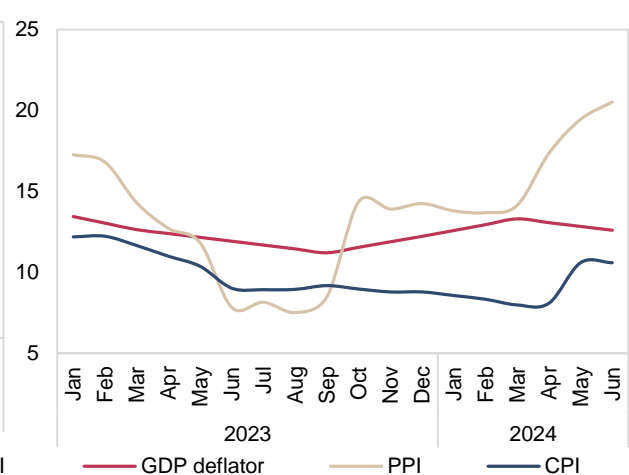

Figure 2.2.5. Dynamics of alternative indicators of CPI inflation, *percent*

Source: CBU calculations based on data from the Statistics Agency.

GDP deflator decreased by 0.7 percentage points from 13.3 percent in the first quarter and amounted to 12.6 percent, while producer price inflation, on the contrary, amid rising prices in metallurgy, energy production and utilities, increased by 6.4 percentage points

compared to March and accelerated to 20.5 percent in June *(14.1 percent in the first quarter)*.

In the first half of 2024, the share of goods and services with a smaller annual change in prices compared to the corresponding period of the previous year amounted to 73.1 percent of the consumer basket *(Figure 2.2.6)*.

In the consumer basket the share of goods and services with annual price change of less than 5 percent is increasing. Specifically, in June the share of such goods and services amounted to 43.1 percent *(Figure 2.2.7)*.

Considering the inflationary processes observed in the economy in recent months, excluding the temporary effects of regulated prices, overall inflation remains in a downward trend.

Figure 2.2.6. Comparative change in inflation of goods and services in the CPI basket in January-June, *percent*
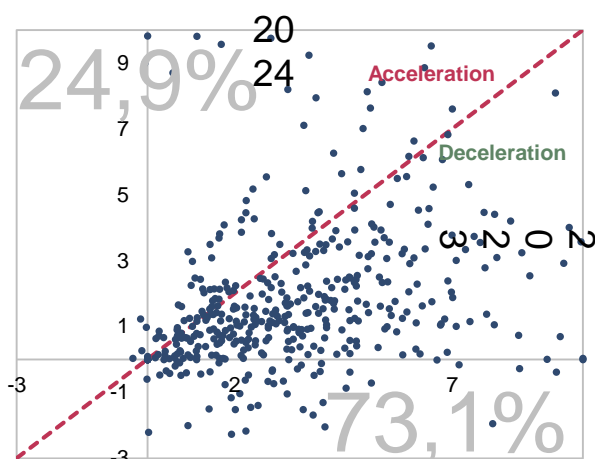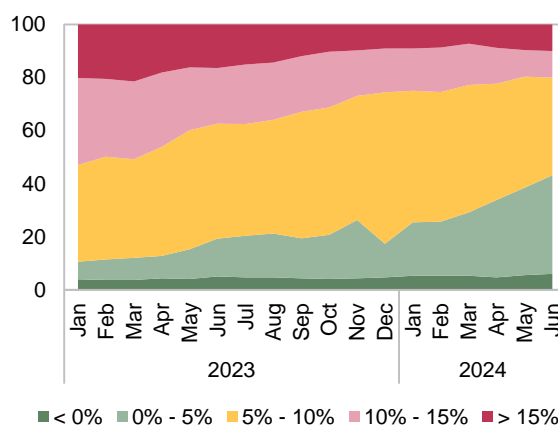
Figure 2.2.7. Distribution of annual inflation of goods and services in the CPI basket in percentage intervals, *percent*

Source: CBU calculations based on data from the Statistics Agency

At that, in order to ensure further downward trend in inflation and bring it to the 5 percent target, monetary conditions in the economy are to be maintained relatively tight in the most part of the forecast period.

2.3. Monetary conditions

Given projected inflation deceleration until the end of the year, in June, the Central Bank's policy rate amounted to 3.4 percent in real terms *(calculated on the basis of inflation for the next 6 months)*, and the average real interest rate of the interbank money markets amounted to 4.2 percent. The rise in money market real interest rate is attributed to a small increase in nominal interest rate and a decline in inflation forecast *(Figure 2.3.1)*.

During this period,the UZONIA benchmark rate, calculated on the basis of deposit operations in the money market, developed with marginal fluctuations close to the policy rate. Average interest rates on interbank overnight REPO operations have been slightly higher than UZONIA in the last 2 months, also developing close to the policy rate *(Figure 2.3.2)*.

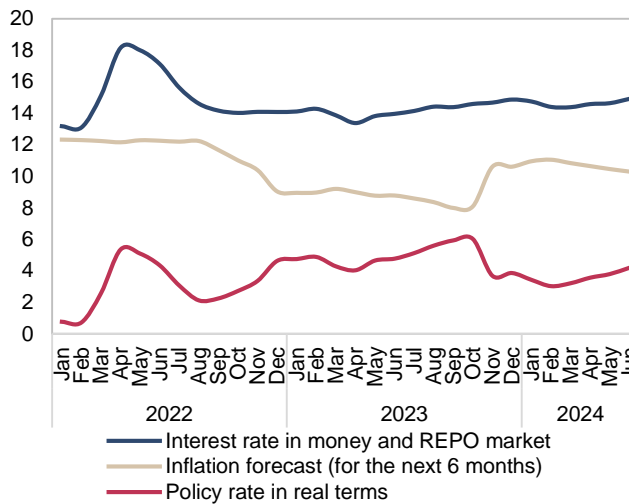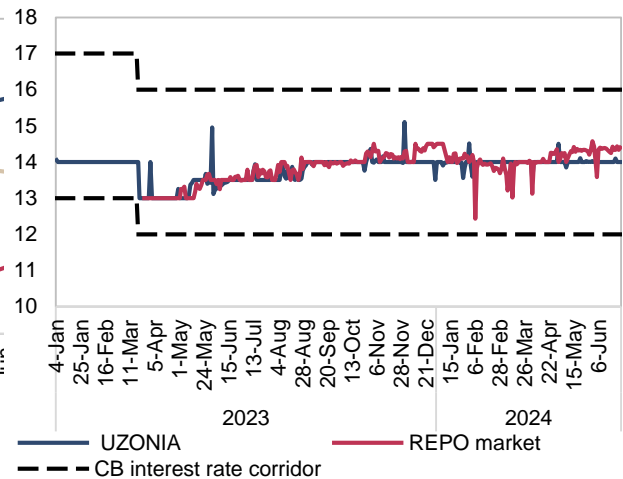**Figure 2.3.1. Money and REPO market interest rates,** percent

- Interest rate in money and REPO market
- Inflation forecast (for the next 6 months)
- Policy rate in real terms

Figure 2.3.2. UZONIA and overnight REPO interest rates, percent

- UZONIA
- REPO market
- CB interest rate corridor

Source: CBU calculations.

Money market interest rates are adequate to ensure relatively tight monetary conditions. Meanwhile, structural surplus of liquidity in the banking system, another factor indicating the monetary tightness, after growing at the beginning of the year, stabilized in the second quarter *(Figure 2.3.3)*. Having significantly decreased in April, the volume of liquidity expanded in May-June due to higher government expenditures.

During the quarter, there was a decline in the yields of government securities, caused by a decrease in issuance volumes amid strong demand from banks.

At that, there were also some changes in the term structure, with more short-term government securities placed in circulation *(Figure 2.3.4)*.

Interest rates on deposits and loans demonstrated diverse dynamics. While there was a slight increase in interest rates on households' deposits in the national currency, interest rates on legal entities' deposits after a considerable drop in April-May recovered to the previous quarter's level in June *(Figure 2.3.5)*.

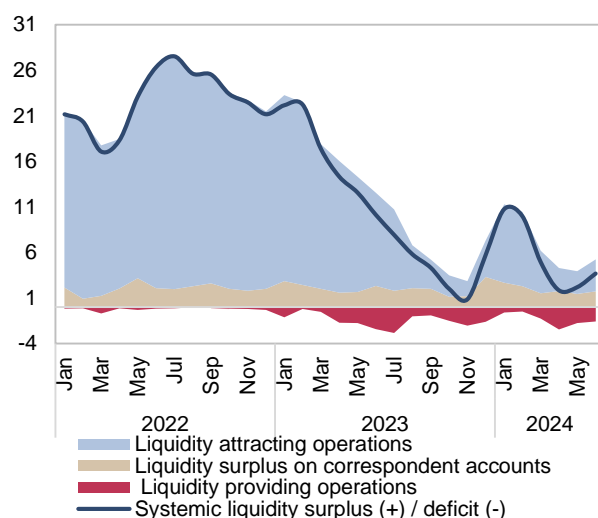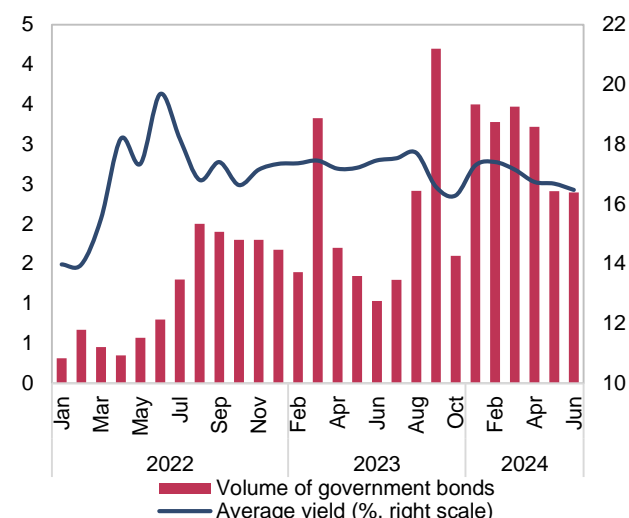**Figure 2.3.3. Total liquidity in the banking system,** trillion soums

Figure 2.3.4. Government securities, trillion soums

Source: CBU calculations

Attractiveness of soum deposits is increasing in conditions of declining inflation expectations and stability of the national currency exchange rate *(Figure 2.3.6)*. Currently, about 80 percent of households' deposits, growing at a high rate, are denominated in the national currency. Since the beginning of the year, households' deposits in soums increased by 14.7 percent, of which term deposits rose by 26.4 percent.

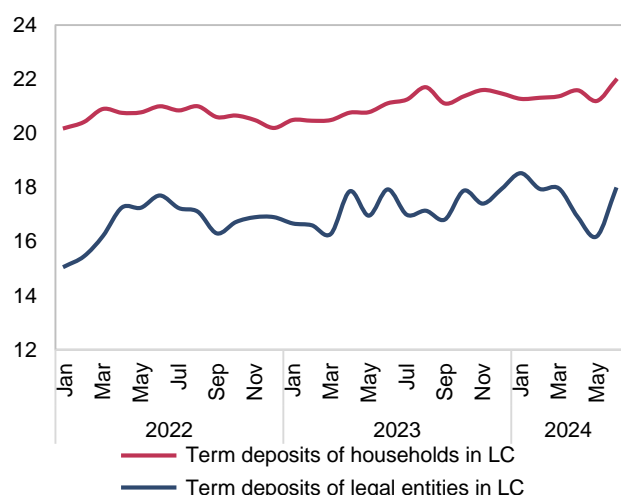**Figure 2.3.5. Interest rates on term deposits in the national currency,** percent

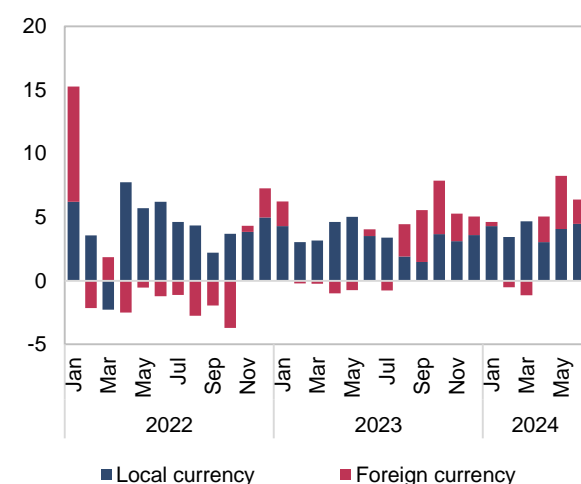**Figure 2.3.6. Changes in the balance of households term deposits,** monthly, percent

Source: CBU calculations

Increasing share of term deposits in the structure of deposits *(58 percent as of July 1)* indicates that banks are building a stable internal resource base. Over the past 4 years, households' term deposits in sums increased by 5.2 times, and this trend is expected to continue in the

medium term given high growth of households' incomes and inflation deceleration.

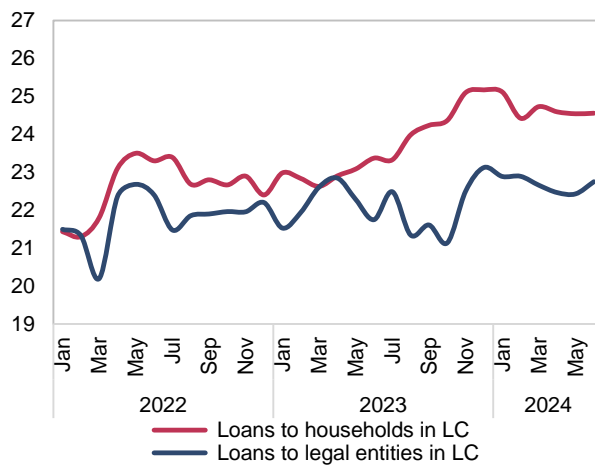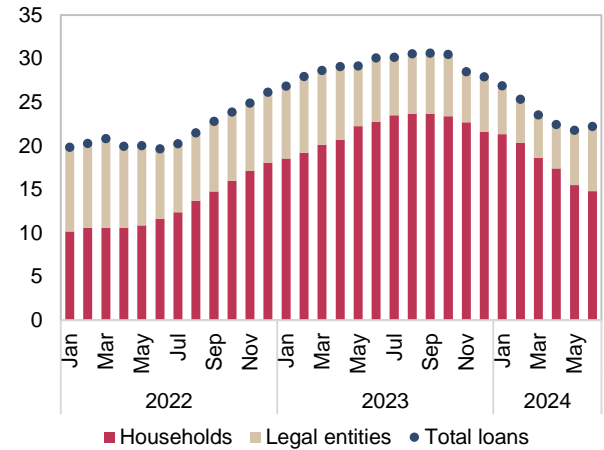**Figure 2.3.7. Interest rates on loans in the national currency,** percent

Figure 2.3.8. Decomposition of growth in stock of loans in the national currency, annual percentage

Source: CBU calculations

There was a slight decrease in average interest rates on loans compared with the beginning of the year, which in a certain sense indicates balancing of demand for loans from economic entities. In June, the weighted average interest rates on loans to households and legal entities amounted to 24.6 percent and 22.7 percent, respectively *(Figure 2.3.7).*

Since the beginning of the year, banks allocated nearly 127 trillion soums loans to the economy, a 9.5 percent increase compared to the corresponding period of the previous year. Volume of loans to households remains at the level of the previous year, and higher pace of loan repayments balances the growth of retail loan stock.

Specifically, stock of loans to households rose by 55 percent year-on-year in the second quarter of last year, however, this indicator fell to 30 percent by the end of June this year *(Figure 2.3.8).* This stabilization is explained by the high base effect of the previous year, introduction and certain tightening of macro-prudential norms, as well as normalization of households' demand for loans.

Dynamics of quantitative indicators, such as high growth of household deposits in banks (on average 1.5 times year-on-year), balancing of demand for loans and money supply expansion, indicate relatively tight monetary conditions in the economy. *(Figure 2.3.9).*

Figure 2.3.9. Indicators of monetary conditions

Indicators Level of tightness	2023												2024					
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Policy rate *(in real terms)*																		
Money market interest rate *(in real terms)*																		
REPO market interest rate *(in real terms)*																		
Change in effective liquidity position *(annual percentage)*																		
Average yield of government bonds *(in real terms)*																		
Growth in households' term deposits *(annual percentage)*																		
Growth in loans to households *(annual percentage)*																		
Inflation expectations of households																		
Inflation expectations of business entities																		
Growth in money supply *(annual percentage)*																		
REER																		

Source: CBU calculations

Despite considerable inflation deceleration from the second half of 2023, due to expectations of changes in energy tariffs the Central Bank kept the policy rate unchanged at 14 percent per annum. Under the influence of Central Bank's policy, the monetary conditions in the money and REPO markets were maintained tight.

In May, inflation acceleration under the influence of temporary factors served to balance the real positive interest rates and move the monetary conditions to a relatively tight phase.

The Central Bank considers the policy rate cut to 13.5 percent at July Board meeting as an adjustment to nominal interest rates with no significant impact on real interest rates amid lower-than-expected secondary effects of energy tariff increases.

Meanwhile, the Central Bank will continue implementing relatively tight monetary policy aimed at reducing inflation to the updated forecast *(9 percent)* by the end of the year and achieving the 5 percent target in the medium term. Future decisions on the policy rate will depend on inflation dynamics and forecasts, inflation expectations and macroeconomic indicators.

Box 4.

Estimation of transmission of policy rate decisions to interest rates on deposits and loans

Effective operation of the interest rate channel is essential for the monetary policy decisions to influence aggregate demand and, thus, the inflation rate. A change in the policy rate is reflected in aggregate demand and, as a consequence, in the price level, by influencing economic agents' decisions on consumption and savings as a result of transmission of interest rates on deposits and loans.

Transmission mechanism of monetary policy is initiated by a decision of Central Bank to change the policy rate. Assessing the impact of policy rate changes on money market interest rates and indirectly on loan and deposit rates of commercial banks is crucial for monetary policy decisions.

To study transmission of the interest rate channel, factors influencing retail interest rates were selected and analyzed by applying a dynamic panel data model.

The following factors determining the macroeconomic and commercial bank specifics were selected as determinants of retail interest rates: interbank money market interest rate $(i)\_M$), permanent $(Y)\_P$) and cyclical components of real GDP (Y_T), annual inflation rate (p), standard deviation coefficient of the interest rate (s), level of concentration in the banking system - the Herfindal-Hirshman index (HHI), total assets (x_assets), ratio of highly liquid assets to total assets (x_liquidity), capital adequacy ratio (x_capital), ratio of deposits to the sum of bonds and deposits (x_deposit), ratio of long-term loans to total loans (x_credit), ratio of non-performing loans to total loans (cr_k), ratio of operational expenses to total assets (e_k).

Model equations for loan and deposit (i={L,D}) interest rates of each commercial bank are expressed in the following form:

$$\Delta i_{ik,t} = \mu_{Lk} + \sum_{j=1}^{2} \kappa_{ij}\Delta i_{ik,t-j} + \sum_{j=0}^{2} \beta_{ij}\Delta i_{Mt-j} + \alpha_i i_{ik,t-1} + \gamma_L i_{Mt-1} + \sum_{j=0}^{2} \phi_{ij}\bar{Z}_{t-j} + \varepsilon_{ik,t} \quad (1)$$

Here: $k = 1, \dots, N = 23$, $(k -$ banks$)$, $t = 1, \dots, T = 60$ $(t -$ period$)$.

The vector $\bar{Z}$ comprises stationary variables influencing retail interest rates in the short and medium term: $\bar{Z} = (x_k, HHI, \Delta \ln y^P, \Delta \ln y^T, \pi, \sigma, cr_k, e_k)$.

Here: $x_k = [x\_assets, x\_liquidity, x\_capital, x\_deposit, x\_credit]$.

In this model specification, b_i0 and (b_i0 (1+a_i1+k_i1)+b_i1+g_i) represent the initial and first lag transmission coefficients between policy rate and retail interest rates, respectively. (-g_i/a_i) indicates the long-term transmission parameter. Taking into account the interaction effect, equation (1) is expanded as follows:

$$\Delta i_i k, t = \mu_{Lk} + \sum_{j=1}^{2} \kappa_{ij}\Delta i_{Lk,t-j} + \Delta i_{it} k + \sum_{j=0}^{2} \left(\beta_{ij} + \sum_{m=1}^{5} \beta_{imj}^* X_{m,k,t-1} \right) \Delta i_{Mt-j} + \sum_{m=1}^{5} \lambda_{im} X_{m,k,t-1}$$
$$+ \left(\alpha_i + \sum_{m=1}^{5} \alpha_{im}^* X_{m,k,t-1} \right) i_{ik,t-1} + \left(\gamma_i + \sum_{m=1}^{5} \gamma_{im}^* X_{m,k,t-1} \right) i_{Mt-1} + \sum_{j=0}^{2} \phi_{ij}\bar{Z}_{t-j} + \varepsilon_{ik,t} \quad (2)$$

At that, all bank-specific indicators, x_(m,k,t-1) are modified as follows:

$$X_{m,k,t-1} = x_{m,k,t} - \left(\sum_{t=1}^{T} \frac{\sum_{k=1}^{N} x_{m,k,t}}{N} \right) / T$$

Impact on deposit rates. According to the analysis results, the current transmission coefficient to the deposit interest rate was estimated to range between 0.13 and 0.16, while the two-month cumulative transmission coefficient in the selected models ranges from 0.27 to 0.31. That is, after the Central Bank changes the policy rate by

1 percentage point, the deposit interest rate change by (0.13-0.16) and (0.27-0.31) percentage points in one and two months, respectively.

According to Model 2, a one percentage point change in the policy rate leads to a total 0.51 percentage point change in deposit rates in the long run, while in the other model specifications this coefficient ranges between 0.42 and 0.56.

The overall effect of the policy rate change on deposit rates occurs mainly *(85 percent of the total impact)* in the first quarter. According to the Andrews-Lu model and moment selection criteria, the results of model 2 statistically outperformed the other models.

Table 2. Average coefficients of policy rate transmission to deposit interest rates

Interest rate channel	Model 1	Model 2	Model 3
1-month transmission	0,14	0,16	0,13
2-month transmission	0,31	0,27	0,28
1-quarter transmission	0,36	0,46	0,45
Long-run transmission	0,42	0,51	0,56

Source: CBU calculations

Impact on loan rates. Four different model specifications were estimated to analyze the impact of the policy rate on lending rates. The one-month transmission coefficient of 1 percentage point change in the policy rate to lending interest rate ranges between 0.07 and 0.09. The two-month transmission coefficient amounts to (0.12 - 0.21) percentage point.

Hence, change in the policy rate has a significant effect on lending rates starting from the second month. A 1 percentage point change in the policy rate results in a 0.2 percentage point change in lending rates in the long run, according to Model 4. More than 73 percent of the total effect of policy rate change on lending rate occurs in the first quarter. According to the Andrews-Lu model and moment selection criteria, Model 4 was found to be more significant compared to the other models.

Table 3. Average coefficients of policy rate transmission to lending interest rates

Interest rate channel	Model 1	Model 2	Model 3	Interest rate channel
1-month transmission	0,09	0,07	0,08	0,08
2-month transmission	0,21	0,17	0,19	0,12
1-quarter transmission	0,18	0,15	0,16	0,14
Long-run transmission	0,15	0,13	0,11	0,20

Source: CBU calculations.

Transmission of policy rate decisions to lending interest rates was estimated based on data for 2019-2023, when the sensitivity to policy rate changes was low due to high share of preferential and directive loans as well as strong demand for retail loans.

In the future, transmission of the policy rate decisions to lending rates is expected to increase owing to bank privatization processes, a reduction of preferential loans and an increase in the volume of loans on market-based of interest rates.

Box 5.

Empirical analysis of dynamic effects of fiscal shocks

Developing countries face difficult choices when it comes to fiscal adjustments. For instance, cutting public spending and/or raising taxes to ensure macroeconomic stability in the face of large fiscal deficits may, in turn, slow economic growth.

In the short term, government spending stimulates economic activity by increasing aggregate demand. However, higher growth of expenditures in the medium term may lead to an increase in public debt, attracting debt from additional sources, or higher interest rates, thus increasing the cost of borrowing and investment for businesses and consumers, resulting in a shrinking private sector and slower economic growth.

Furthermore, increased government spending exerts upward pressure on prices by generating additional demand, thereby reducing the real purchasing power of the population.

Expansionary fiscal policy observed in Uzbekistan recently has led to a persistent and significant increase in budget deficit. This large deficit reflects a substantial disparity between government expenditures and revenues, thus putting potential pressure on the finances of the economy. This, in turn, emphasizes the relevance of studying the impact of fiscal shocks on macroeconomic performance and estimating multipliers under large fiscal deficits.

Fiscal multiplier measures the short-term effect of discretionary fiscal policy on GDP and shows how changes in budget expenditures or revenues over a given period impact GDP. In other words, this indicator measures how many soums GDP increases (or decreases) when budget expenditures (or tax revenues) grow by 1 soum.

In research, depending on period under study, two different types of multipliers are used: short-run effect multiplier and total effect multiplier.

We applied the Structural Vector Autoregression (SVAR) model and the Bucket approach to estimate the direction, intensity and duration of the effects of fiscal shocks on economic activity and inflation in Uzbekistan, as well as fiscal multipliers.

Shock to government spending. According to the analysis results, budget expenditures have a significant positive impact on GDP growth in the short term. At that, the positive effect of a public spending shock on economic growth peaks in the third quarter and persists until the end of the second year, then fading out in the medium term *(Figure 1a)*.

An increase in budget expenditures leads to a substantial inflation acceleration in the short term *(Figure 1b)*. The inflationary effect of government spending is significantly high in the first quarter and persists for a year and a half.

Tax revenue shock. In initial quarters, a tax revenue shock has a negative impact on economic growth, which is attributed to weaker economic activity and consumption due to an increase in taxes. The negative impact of a shock to tax revenues persists for up to two years *(Figure 2a)*. Higher taxes may constrain private sector development and reduce consumption by redirecting funds available for business investment and consumption from the private to the public sector, thus adversely affecting economic growth in the short and medium term. Such situation is clearly observed in countries with a large share of the state in the economy.

In early years, a shock to tax revenues will have a decreasing effect on inflation persisting in the medium term, and fading out in the long run *(Figure 2b)*.

According to the SVAR estimation results, the total fiscal spending multiplier for the first year amounted to 0.64 *(Table 1)*. The second and third year multipliers are 0.29 and 0.14, respectively. This implies that an increase in government spending by 1 soum results in a 0.64 soum growth in GDP in the first year, and 0.29 and 0.14 soums in two and three years, respectively.
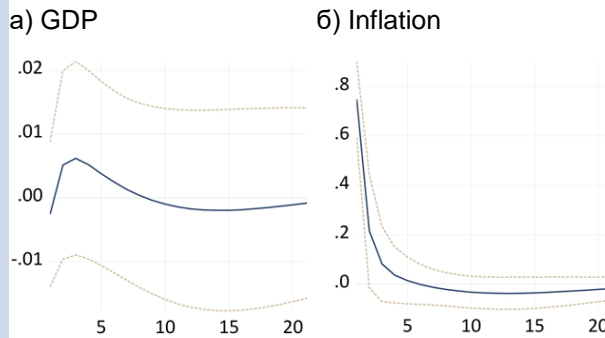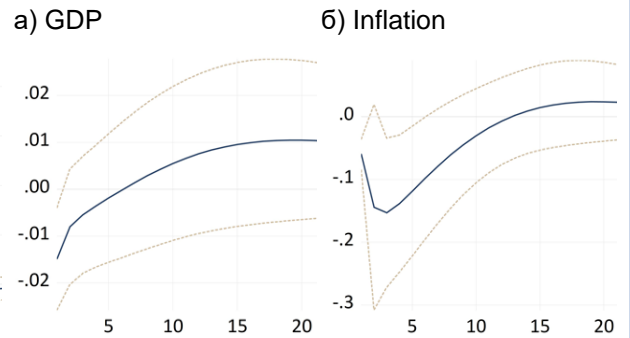
Figure 1. Impulse response to government spending shock

Figure 2. Impulse response to tax revenue shock

а) GDP   б) Inflation   а) GDP   б) Inflation

Source: CBU calculations.

In the first year, the total tax revenue multiplier amounts to -0.42. The effect of the tax revenue multiplier subsides over time, and the second year multiplier is -0.32. The tax multiplier implies that an increase in tax revenues by 1 soum leads to a decrease in GDP by 0.42 soums in the first year and by 0.32 soums in the second year.

Table 1. Fiscal multipliers for Uzbekistan

Cumulative multiplier	Estimation results				
	SVAR			Bucket approach	
	1 year	2 years	3 years	Min	Max
Government spending	0,64	0,29	0,14	0,44	0,66
Tax revenues	-0,42	-0,32	-0,06		

Source: CBU calculations.

Besides, the ranges of first year fiscal multipliers were calculated applying the Bucket approach. The results show that fiscal multipliers in Uzbekistan range between 0.44 and 0.66.

According to empirical findings, multipliers can be categorized into three groups. These are low (0.1-0.3), medium (0.4-0.6) and high (0.7-1.0) multipliers. Based on this conclusion, Uzbekistan is among the countries with medium multiplier.

Higher multipliers imply more effective fiscal stimulus for the country. Therefore, when conducting fiscal policy, it is relevant to take into account the factors increasing or decreasing multipliers.

In developing and low-income countries such as Uzbekistan:

- the supply side constraint of positive output gap and large interest rate differential leads to decreasing multipliers;

- limited access to financial services for consumers and businesses, relatively low monetary transmission, weaker automatic stabilizers and small public debt result in higher multipliers.

Trends in services inflation

From the second quarter of 2023 to the end of the first quarter of this year, there was a steady downward trend in core services inflation *(excluding services with regulated prices)*. Particularly, the annual rate declined by 4 percentage points compared with April 2023 and amounted to 8.6 percent in April this year. However, starting from the second quarter this year, core services inflation started accelerating reaching 9.3 percent in June *(Figure 1)*.

The previous downward dynamics of core services inflation was mainly conditioned by deceleration of price increase in components reflecting consumer activity such as household services, transportation and especially catering.

The shift in trend this year is primarily attributed to higher prices for medical services caused by the introduction of a value-added tax on medical services in April *(Figure 2)*.

Figure 1. Core goods and services inflation, *seasonally adjusted annual percentage*
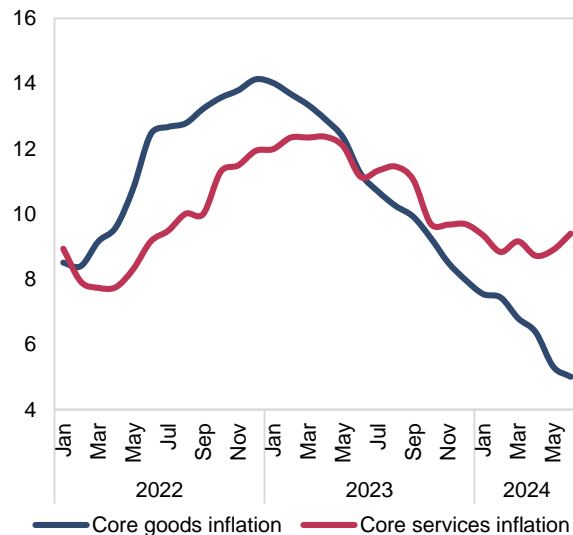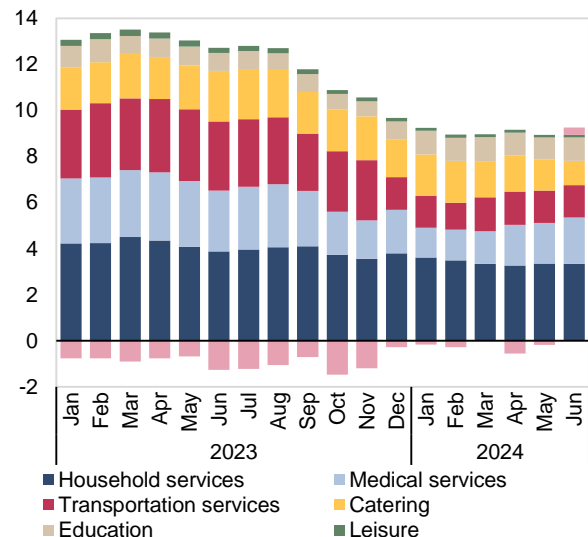

Figure 2. Decomposition of core services inflation by groups, *contribution in percentage points*

Source: CBU calculations based on data from the Statistics Agency.

Generally, a slight decrease in the previously strong consumer demand due to a slowdown in the real average wage growth in the economy contributes to relatively stable price developments in the services sector.

However, it should be noted that the slowdown in real average wage growth, starting from the second half of 2023, varies across all sectors. The pace of decline is faster in the accommodation, food services and recreation sectors and slower in trade, transportation and warehousing.

It is the moderation in real average wage growth in accommodation, catering and leisure, as well as in trade, transportation and warehousing, that can serve to cool the labor market in this sectors and mitigate the effects of supply-side inflation factors.

In addition, lower real wage growth in all sectors serves to balance aggregate demand in relation to supply factors.

In the first half of the year, inflation in transportation and household services declined more slowly, while prices for medical services continued increasing due to strong consumer demand for these services.

In recent years, with growing real incomes of the population, the share of middle-income population has increased. As a result, there are a number of structural changes

in the consumption pattern of the population, and the overall demand for quality services is increasing.

Figure 3. Inflation dynamics of selected services, *annual percentage*
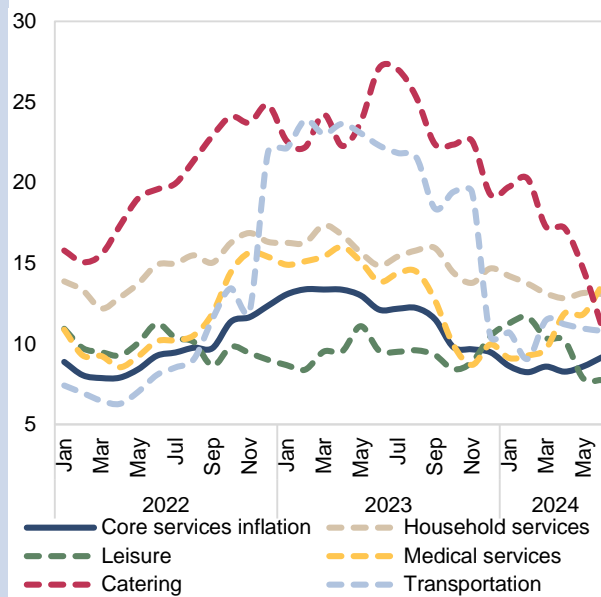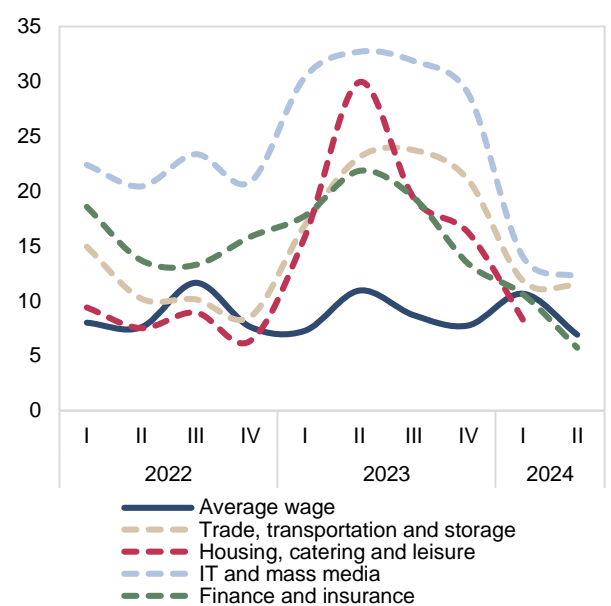
Figure 4. Real growth of household income by sector, in percent

Source: CBU calculations based on data from the Statistics Agency.

Meanwhile, we can observe a faster adaptation of demand for some services to a future income increase and, on the contrary, a slower adaptation to a decrease in income.

Large budget expenditures and a significant increase in cross-border remittance inflow in the first half of the year may accelerate the real income growth and increase consumer activity in the second half of the year.

Importantly, strengthening the competitive environment, improving the quality and efficiency of supply is crucial in ensuring price stability in services.

### Impact of energy tariff increases on inflation expectations

According to international experience, energy price movements are one of the key factors of inflation expectations of economic entities. There is a number of researches in this direction, showing a statistically significant positive correlation between prices for energy resources and inflation expectations.

For instance, Patzelt and Reis (2024)[9] analyzed the impact of electricity price fluctuations on inflation expectations in EU countries. According to the results, an increase in electricity prices by 100 basis points results in a 1,6 basis point rise in the expectations of economic agents.

Additionally, Wehrhöfer (2024)[10] found that in Germany, 100 basis point rise in electricity cost for households increases their expectations by 1,4 basis points.

In Uzbekistan, there is also high correlation between energy prices and inflation expectations of economic agents (Figure 1). Specifically, inflation expectations of the population were observed to be elevated during the period of tariff increases for electricity and natural gas price.

Figure 1. Inflation expectations, electricity and natural gas price dynamics
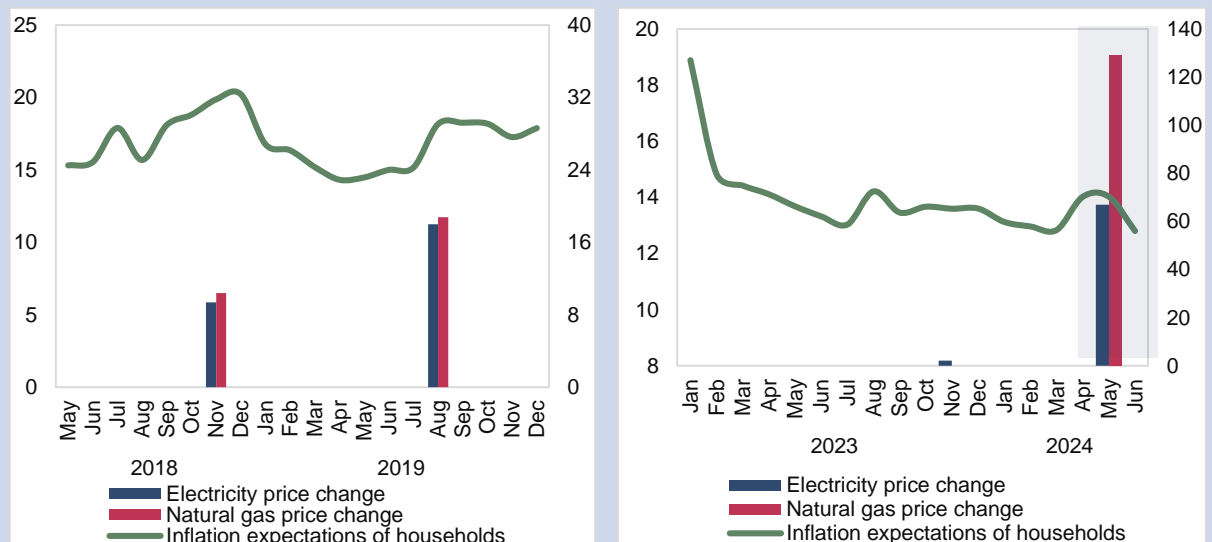
Source: CBU calculations, Statistics Agency.

Currently, the sensitivity of inflation expectations to changes in energy prices has decreased compared to previous years.

Particularly, in 2018, a 10 percent increase in electricity prices for households caused an acceleration of inflation expectations by 4.2 percent.

In 2019, an 18 percent hike in electricity and natural gas prices increased household expectations by 3.2 percent.

Meanwhile, tariff increases for electricity and natural gas this year resulted in a 1.2 percent rise in households' inflation expectations.

Closer communication with the public regarding these increases compared to previous years, as well as a grace period of up to two months, might have contributed to a lower impulse response of inflation expectations. However, there may be an upward trend in inflation expectations in case the lagged secondary effects on domestic prices occur until the end of the year.

Appendix.

### Analysis of the impact of external demand on Uzbekistan's export

External economic environment is one of the key factors determining the foreign trade dynamics and an indicator of external demand for the country's goods and services.

An increase in economic activity in trading partners serves to boost exports through stronger external demand.

Monitoring such processes allows to obtain timely signals regarding the possible changes in export volumes under the influence of external demand dynamics, as well as to take appropriate measures in time, based on the expectations of export increase or decrease.

Analysis of foreign trade of Uzbekistan's major trading partners - Russia, China, Kazakhstan and Türkiye *(accounting for about 80 percent of non-gold exports)* showed that the total imports of goods and services to these countries dropped significantly in the second quarter of 2024 *(Figures 1-2).*

Figure 1. Import dynamics in major trading partners of Uzbekistan, *percent*

Figure 2. Import dynamics in Kazakhstan, *cumulative percentage*
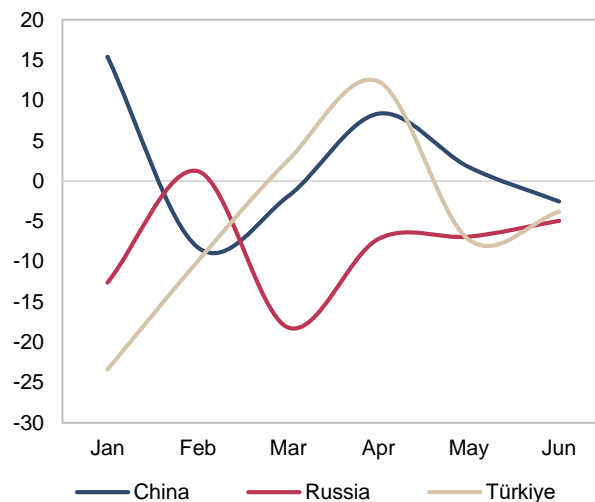
Source: Bank of Russia, Central Bank of Türkiye, Chinese statistics (tradingeconomics.com).
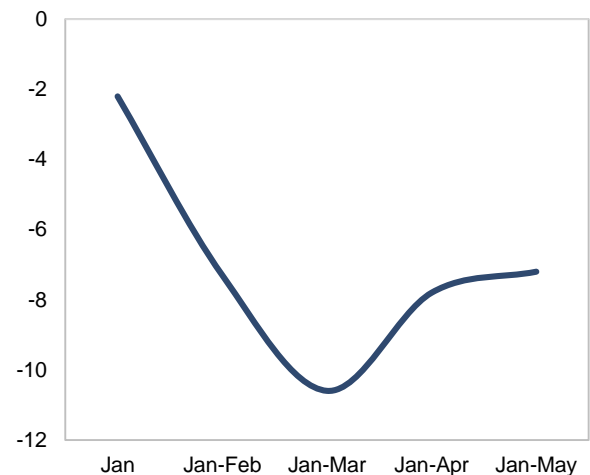
Source: Bureau of National Statistics of Kazakhstan.

Total imports in **Kazakhstan** has decreased by almost 7 percent since the beginning of the year *(Figure 2)*, while exports from Uzbekistan to Kazakhstan has dropped by 12 percent. At that, there was a substantial fall in the real volume of machinery and equipment (particularly, a 2-fold decrease in bodies and engines), constituting one-third of exports.

In Russia, the annual import dynamics was negative, with a 4.9 percent decrease in June, largely due to settlement issues in foreign trade transactions and trade restrictions.

[9] Patzelt and Reis (2024) "Estimating the rise in expected inflation from higher energy prices", Centre for Macroeconomics and Economic and Research Council.
[10] Nils Wehrhöfer (2024) "The effect of energy prices on households' and firms' inflation expectations", Discussion Paper, Deutsche Bundesbank

Over the first 6 months this year, exports of textile products, constituting the bulk of good exports to the Russian market from Uzbekistan (more than 50 percent), decreased by 6 percent, while exports of fruit and vegetables increased by 11 percent. Lower exports of textile products is considered to be due to the price effect, given a considerable fall in cotton prices in the second quarter.

Figure 3. Import dynamics in *China* (excluding natural gas), *percent*
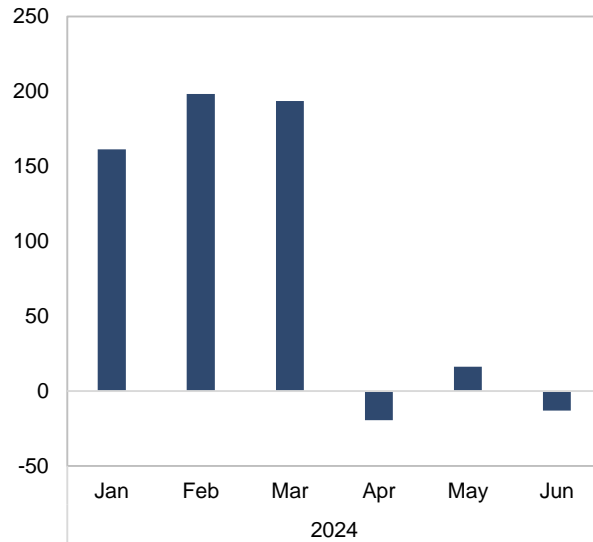
Source: Central Bank's calculations based on customs data of China.

Figure 4. Global prices on main goods exported from Uzbekistan to China, *percent*
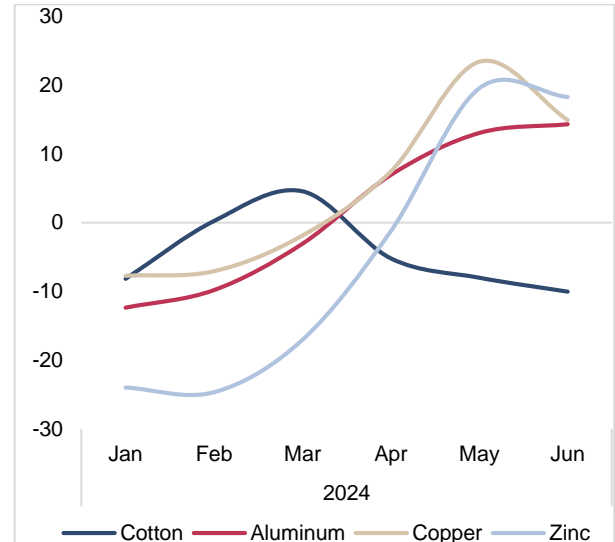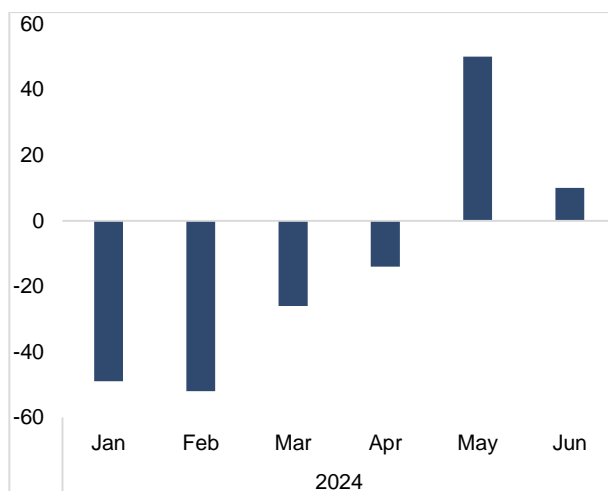

Source: World commodity markets.

Nonetheless, exports of goods and services to Russia increased by 32.3 percent in the first half of this year.

In **Türkiye**, import and export are also decreasing amid worsening business activity. Import fell sharply in April and May of this year, partly due to a decrease in the value of import of textile products, accounting for approximately 40 percent of total export of Uzbekistan to Türkiye.

Figure 5. Export to Türkiye, *annual percentage*

Source: Central Bank's calculations based on the data of Statistics Agency.

**Figure 6. Annual global price dynamics of major goods exported to Turkiye,** *percent*
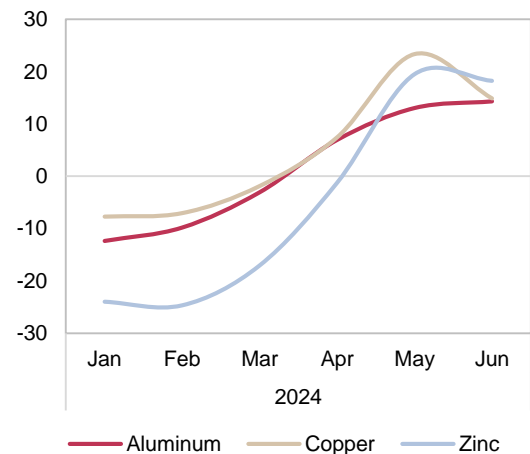
Source: World Bank. World commodity markets

In addition, the volume of non-ferrous metals, representing a large share of Türkiye's imports from Uzbekistan, has continued growing in recent months, however, the pace is slowing down *(Figure 5)*. At that, higher price of non-ferrous metals on the world markets was a key driver of this increase *(Figure 6)*.

External economic activity and export of Uzbekistan. An analysis of monthly economic activity in major trading partners and Uzbekistan's non-gold export suggests a positive correlation between these indicators. The correlation is especially high for Kazakhstan and Türkiye, while being lower for China and Russia *(Figure 7)*.

Correlation coefficients between export from Uzbekistan and business activity in major trading partners amounts to 0.6 for Kazakhstan and Türkiye, 0.3 for Russia and China.

Figure 7. PMI index in major trading partners and export to these countries from Uzbekistan, *2 month moving average, million dollars*
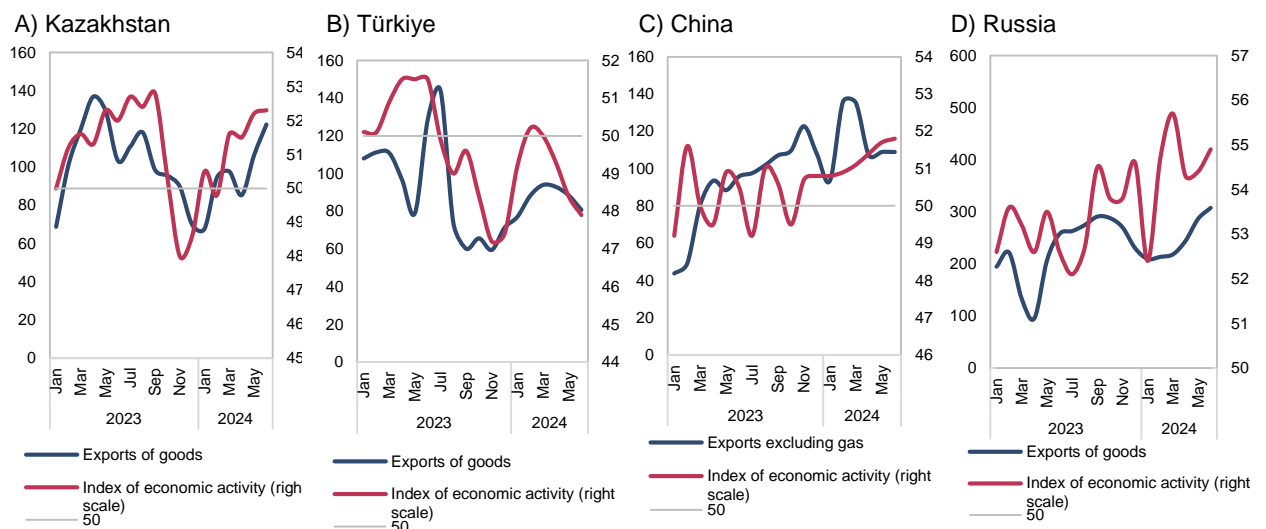
Source: CBU calculations based on data from the Statistics Agency, PMI, Purchasing Managers' Index – Manufacturing, Services (spglobal.com).

Based on the above, the volume of export from Uzbekistan to these countries is expected to grow at a stable pace in the second half of the year owing to expected strong economic activity, especially in Kazakhstan, China and Türkiye.

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