THE CENTRAL BANK OF THE REPUBLIC OF UZBEKISTAN

MONETARY POLICY GUIDELINES FOR 2026 AND THE PERIOD OF 2027-2028

The Central Bank of the Republic of Uzbekistan

MONETARY POLICY GUIDELINES FOR 2026 AND THE PERIOD OF 2027-2028

DISCLAIMER: *The English version is a translation of the original in Uzbek and is intended for information purposes only. In case of any discrepancy, the Uzbek original will prevail.*

Approved by the Resolution of the Board of the Central Bank of the Republic of Uzbekistan #31/1 dated November 18, 2025.

The electronic version of the document is posted on the website of the Central Bank of the Republic of Uzbekistan under the “Monetary Policy Publications” section, in the “Monetary Policy Guidelines” subsection.

The official website of the Central Bank of the Republic of Uzbekistan: www.cbu.uz.

You may send your comments and suggestions to the following address:

E-mail: sinogamov@cbu.uz

Tel.: (+998) 71 212-60-22

6, Islam Karimov Street, Tashkent, 100001

CONTENTS

ABBREVIATIONS 4

INTRODUCTION 5

I. ANALYSIS OF MACROECONOMIC CONDITIONS AND MONETARY POLICY IN 2025 8

1.1. External and domestic economic conditions 8

1.2. Inflation dynamics and its factors 18

1.3. Monetary policy measures and their impact 23

Box 1. Structural changes in Uzbekistan's export 29

Box 2. Analysis of inflation for main groups in the consumer basket 32

II. MACROECONOMIC DEVELOPMENT SCENARIOS AND MONETARY POLICY IN 2026-2028 35

2.1. The Baseline Scenario of Macroeconomic Development and Monetary Policy 38

2.2. External and Domestic Potential Shocks in Macroeconomic Development and Monetary Policy 49

Box 3. Amendments to the methodology for calculating the money market benchmark index 57

Box 4. Evaluation of Inflation Drivers and Dynamics in Uzbekistan Using the Vector Error Correction Model (VECM) 60

Box 5. Effects of supply-side factors on inflation 63

III. PRIORITY AREAS FOR ENHANCING THE EFFECTIVENESS OF MONETARY POLICY 65

3.1. Prospects for enhancing the effectiveness of monetary policy transmission 65

3.2. Directions for the development of macroeconomic analysis and forecasting capacity 71

IV. TRANSPARENCY AND MONETARY POLICY COMMUNICATION 75

4.1. Objectives and main principles of monetary policy 75

4.2. Monetary policy communication 79

APPENDICES 84

Appendix 1. Schedule of the Board meetings of the Central Bank of the Republic of Uzbekistan to revise the policy rate in 2026 84

Appendix 2. Calendar of monetary policy publications of the Central Bank of the Republic of Uzbekistan for 2026 85

Appendix 3. The role of consumption composition across income groups in shaping perceived inflation 87

Appendix 4. Forecasting Cash in Circulation: ARIMA Model 94

Appendix 5. The role of investments in the economy of Uzbekistan 100

Appendix 6. Coordination of monetary and macroprudential policies and their complementary significance 104

Appendix 7. The role of the monetary policy stance in effectively controlling inflation 108

GLOSSARY 112

ABBREVIATIONS

GDP	–	gross domestic product
CPI	–	consumer price index
PPI	–	producer price index
FAO	–	Food and Agriculture Organization of the UN
Fed	–	Federal Reserve System
IMF	–	International Monetary Fund
WTO	–	World Trade Organization
GS	–	government securities
REER	–	real effective exchange rate
PMI	–	Purchasing Managers Index
FPAS	–	Forecasting and Policy Analysis System
QPM	–	quarterly projection model
DSGE	–	dynamic stochastic general equilibrium model
VECM	–	vector error correction model

INTRODUCTION

The Monetary Policy Guidelines outlines the views of the Central Bank of the Republic of Uzbekistan regarding the current economic situation and the expected medium-term macroeconomic developments, as well as the monetary policy measures aimed at ensuring price stability over this period.

The Central Bank of the Republic of Uzbekistan conducts its monetary policy based on the objective of ensuring price stability and reducing inflation to the 5-percent target in the medium term.

Sustained high economic growth has continued so far in 2025. Improved investment activity, rising consumer demand driven by the growth of household incomes, and the acceleration of export performance were the main drivers of economic growth.

In turn, the improvement in investment activity was mainly driven by the high volume of foreign investment attracted to the country and the rapid growth of credit to the economy.

In particular, strong activity was observed in the services, industry, and construction sectors. At the same time, budget revenues grew at a higher rate than expenditures, supporting fiscal consolidation efforts and the deficit forming within the target parameters.

As a result, aggregate demand has been stable in the economy since the beginning of the year. In addition, inflation remained high in 2025 Q1 due to import-related supply risks affecting the prices of certain consumer goods, leading to a rise in inflation expectations.

The Central Bank responded by tightening the monetary policy stance in March. The policy rate was increased by 0.5 percentage points, to 14 percent per annum.

In 2025 Q3, inflationary processes slowed, along with the easing of inflation expectations. This was driven by relatively tight monetary conditions, the fading effect of last year’s inflationary factors associated with an increase in energy prices, and declining imported inflation due to exchange rate appreciation.

Monetary conditions will continue to be maintained at a relatively tight level in the coming periods. This will ensure inflation remains on a sustained downward path and the demand-side pressures arising from high levels of economic activity are kept under control.

Under these conditions, headline inflation is expected to be close to 8 percent at the end of 2025 and real GDP growth at around 7-7.5 percent.

To outline the medium-term 2026-2028 forecasts and define the guidelines of monetary policy, the baseline scenario of macroeconomic development was developed. The scenario is based on several expectations about external and domestic conditions.

The external outlook assumes relatively slower global growth amid increased uncertainty in the world, a prolonged period of above-target inflation, the absence of sharp volatility in foreign exchange markets, and a sustained period of relatively high gold prices.

The domestic outlook incorporates a gradual stabilization of aggregate demand, a moderation in lending activity, wage growth aligned with growth in productivity, remittances returning to their medium-term growth trajectory, steady investment inflows, and the fiscal deficit remaining below 3 percent of GDP in the medium term.

According to the baseline scenario, real GDP growth is projected at 5.5-6.5 percent in 2026, and 6-7 percent in 2027-2028.

Under the baseline scenario, as well as in the case of shocks, **monetary policy will remain focused on reducing inflation to the 5-percent target**.

According to the forecasts, headline inflation is expected to decline to 7 percent by end-2026, reach the 5-percent target in 2027 as external inflationary pressures ease and inflation expectations stabilize, and remain around the target level starting from 2028.

These forecasts assume continued privatization process, steady growth in domestic and foreign investment, moderation of credit growth, and the absence of intensification in climate-related risks.

In developing macroeconomic scenarios related to the emergence of unexpected domestic and external risks, a different approach is followed. In previous years, several risks were analyzed under one alternative scenario, but the likelihood of these risks materializing simultaneously was low. In the new approach, each risk is considered separately.

In particular, external and domestic risks (*or shocks*) that may arise in the coming years are analyzed independently, and the deviations of economic indicators from the baseline forecasts are assessed.

The main inflationary shocks analyzed include significant depreciation of trade partner currencies, a sharp decline in gold prices, a substantial increase in global food prices, an expansion of the fiscal deficit, disruptions in energy supply, worsening climate conditions, increased consumer demand driven by broader financial inclusion, and an increase in administered prices significantly above the inflation rate.

For disinflationary shocks, the impacts of a sharp rise in gold prices, an acceleration of the privatization process, and improvements in the investment and competitive environment are assessed.

Based on these potential conditions, parameters are defined for introducing appropriate adjustments to monetary policy. In doing so, the main focus was on achieving the inflation target in the medium term.

This report also outlines plans to further enhance the effectiveness of monetary policy in the coming years. These include measures to improve the transmission of monetary policy decisions by enhancing the operational framework, strengthening macroeconomic forecasting and analytical capacity through recalibrating existing models and introducing new ones, and enhancing communication.

In the coming years, particular attention needs to be paid to addressing the fundamental supply-side factors of inflation to ensure low and stable price growth.

This primarily requires measures aimed at strengthening competition in domestic markets, improving foreign trade openness by reducing tariff and non-tariff restrictions, thereby lowering concentration in import supply, ensuring uninterrupted delivery of energy resources, and developing adequate transport infrastructure capacity to expand the supply of goods and services.

The scope of macroprudential measures aimed at further improving competition in the banking sector was determined based on their potential impact on monetary conditions.

At the same time, accelerating the transformation and privatization of state-owned enterprises, reducing directed and preferential lending practices, and further developing the capital market play an important role in increasing the effectiveness of monetary policy decisions. The successful implementation of these structural reforms will help ensure low and stable inflation and support robust economic growth by improving the capacity and productivity of economic sectors.

I. ANALYSIS OF MACROECONOMIC CONDITIONS AND MONETARY POLICY IN 2025

1.1. External and domestic economic conditions

External economic conditions

In the first nine months of 2025, global economic growth was stronger than expected. This was supported by increased front-loading of production and trade activities ahead of the introduction of higher foreign trade tariffs. In general, tariff levels across the world are rising. However, the effects associated with these changes have not yet been fully reflected in economic activity indicators and may put pressure on global economic growth rates and inflation going forward.

Since some changes are being implemented gradually, companies are covering part of the increase in costs from their profits. At the same time, the effects of tariff-related processes are becoming increasingly evident in the composition of consumer spending, in the labor market, and in the inflation rate.

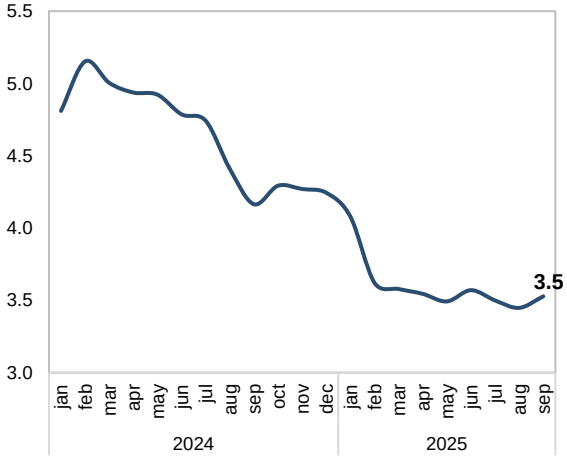
Geopolitical tensions and continued restrictions in foreign trade are further intensifying economic and financial fragmentation in the world. This, in turn, is affecting international production and supply chains as well as the allocation of foreign direct investment. This is resulting in higher transaction costs in the manufacturing sector and is negatively affecting the efficiency of the global economy.

Alongside financial fragmentation, financial resources are being directed primarily toward the development of artificial intelligence technologies. While this trend is supporting economic growth, it is limiting investment in the traditional sectors of the economy and in emerging markets.

Global inflation has gradually declined in recent years, reaching 3.5 percent in September 2025. However, as the impact of foreign trade tariffs on prices becomes more pronounced, inflation is expected to return to an upward trend in the coming quarters (Figure 1.1.1).

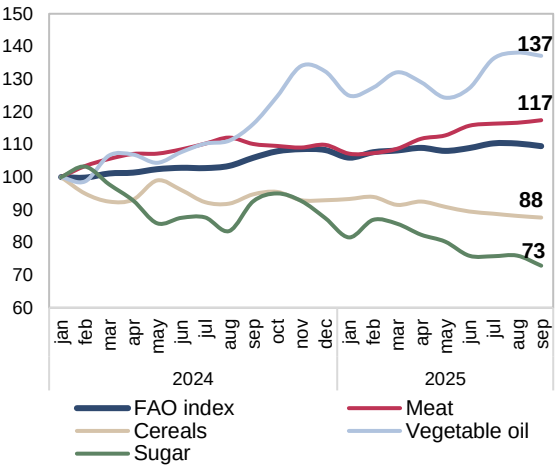
Although most advanced economies achieved their inflation targets this year, risks remain that the existing global uncertainties will complicate maintaining inflation at a low and stable level in the coming periods. In particular, services inflation is staying persistently high and the prices of certain imported goods are rising, which is slowing the pace of disinflation.

Figure 1.1.1. Global inflation, *percent*



Source: CBU calculations.

Figure 1.1.2. FAO index, *January 2024 = 100%*



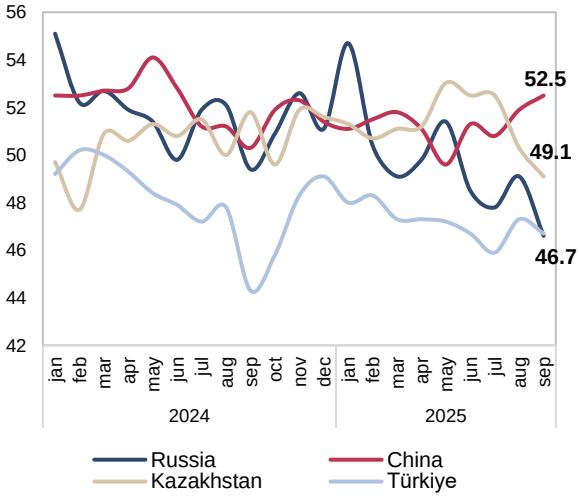
Source: Food and Agriculture Organization, UN

In September, the global food price index (FAO) decreased by 1 percent compared to the previous month, amounting to 128.8 points. On an annual basis, food prices increased by 3.4 percent compared to the same period last year (Figure 1.1.2). Here, grain prices declined due to higher wheat production, while meat and vegetable oil prices recorded substantial increases amid stronger demand.

Along with the decline in inflation, global financial conditions have also begun to ease. Nevertheless, many central banks remain cautious about loosening monetary conditions, delaying their plan to transition to neutral interest rates in the subsequent periods.

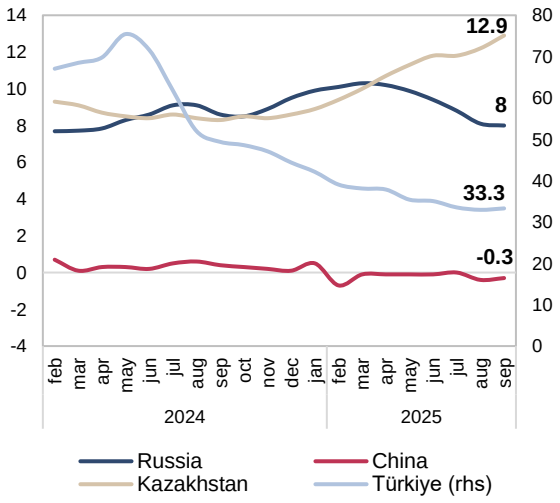
The global Purchasing Managers' Index (PMI) remained in positive territory in September, standing at 52.4 points. Economic activity expanded in both the manufacturing and services sectors.

Figure 1.1.3. PMI index in trading partner countries



Source: S&P Global.

Figure 1.1.4. Inflation in the main trading partner countries, *percent*



Source: Statistics agencies of the respective countries.

A decline in activity was observed in all major trading partner countries except China, largely driven by a reduction in manufacturing orders. In China, high export orders remain the main factor supporting activity (Figure 1.1.3).

Despite geopolitical tensions and uncertainties in foreign trade, economic growth in most trading partners (China, Kazakhstan, Türkiye) has remained resilient, supported by strong consumer demand and investment activity.

Inflation, however, varied across countries and generally remained above the central bank targets. In Russia and Türkiye, inflation has been slowing due to tight monetary policy, while in China, inflationary processes continue to remain near zero. In Kazakhstan, following a short period of stabilization during the summer months, inflationary pressures began to accelerate again (Figure 1.1.4).

Although the **exchange rates** of major trading partner countries have been relatively stable in recent months, significant fluctuations were observed during the first nine months of the year.

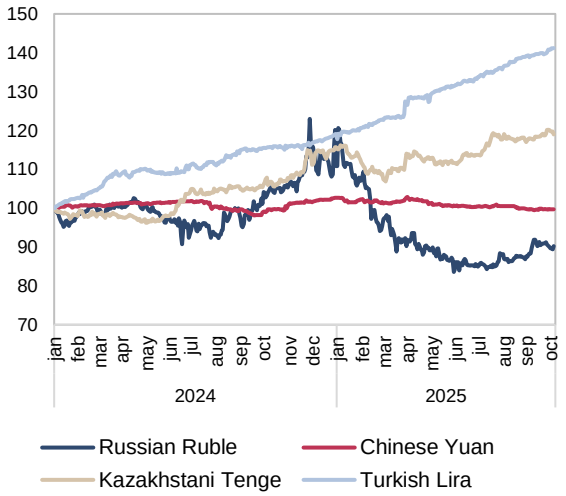
In particular, the **Russian ruble** strengthened significantly due to tight monetary conditions and a slowdown in import growth, while strong domestic demand led to a depreciation of the **Kazakh tenge** over the year. The **Chinese yuan** has remained stable throughout the year. In Türkiye, the **lira** continued to depreciate *(at a more rapid pace than last year*) amid persistent high inflationary pressures (Figure 1.1.5).

Commodity prices have exhibited high volatility this year. Over the past nine months, the prices of **gold** and **copper** increased by **49.4 percent** and **21.4 percent**, respectively, while crude oil and cotton prices declined by 13.8 percent and 5 percent, respectively (Figure 1.1.6).

The strong upward trend in gold prices is explained by increased investment in gold assets as investors seek protection from global uncertainties, as well as sustained demand from central banks.

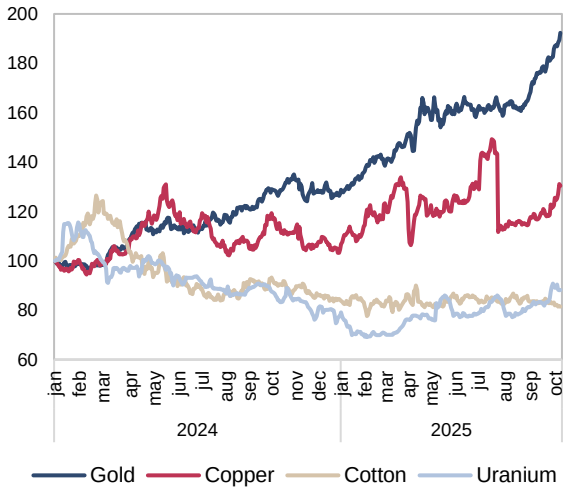
Copper prices have experienced substantial fluctuations due to trade restrictions and the announcement of various tariffs. In recent months, the upward trend in copper prices has been supported by many countries announcing plans to expand green energy and increase electricity supply.

Figure 1.1.5. Exchange rate dynamics in major trading partners, *January 2024 = 100%*



Source: Central banks of the respective countries.

Figure 1.1.6. Commodity price dynamics, *January 2024 = 100%*



Source: tradingeconomics.com.

Cotton prices remain moderate due to a high yield and weakening demand, while **uranium** prices have returned to an upward trend in recent months against the backdrop of strengthening demand.

Domestic economic conditions

Economic growth has remained strong in January-September 2025. High growth in remittances and household lending is driving stable consumer demand. Steady growth in the services, industry, and construction sectors, along with persistently high investment activity, remain important factors supporting economic growth.

At the same time, the faster growth of budget revenues relative to expenditures is supporting fiscal consolidation. To curb the inflationary effects of elevated economic activity, the Central Bank is maintaining relatively tight monetary conditions.

***Economic growth**. In January–September 2025, real GDP expanded **by 7.6 percent** compared to the same period last year (Figure 1.1.7).*

The acceleration of economic growth was driven significantly by the services and construction sectors. Growth in the industrial sector slowed slightly compared to the same period of last year, exerting a moderating effect (Figure 1.1.8).

Domestic demand remained strong amid the substantial increase in household incomes and lending. Similarly, strong external demand has supported favorable dynamics in net exports.

Figure 1.1.7. Decomposition of GDP growth by sector, *cumulative, percent*

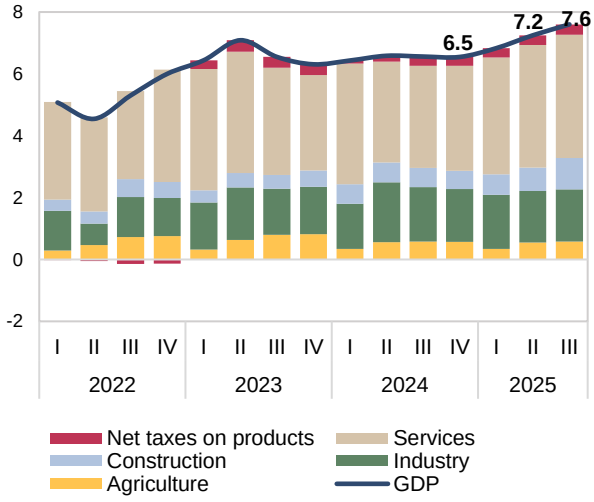
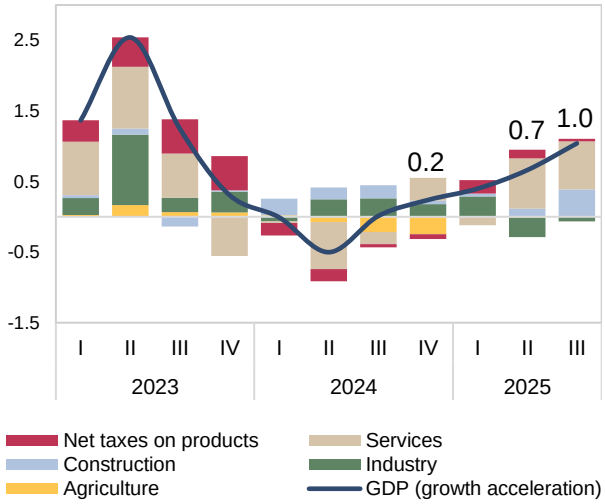


Figure 1.1.8. Contribution of sectors to the acceleration of economic growth compared to the corresponding period of the previous year, *p.p.*



Source: National Statistics Committee.

Due to high consumer activity in the first nine months, retail and wholesale trade turnover increased by respective 11 and 12.4 percent in real terms, whereas public catering services rose by 12.8 percent (Figure 1.1.9).

During this period, aggregate demand was also supported by sustained investment activity. In January-September 2025, the volume of **foreign direct investment** reached 13.6 percent of GDP, amounting to 14.4 bln USD. The volume of foreign direct investment increased by 55.5 percent compared to the same period last year, with its share in GDP reaching 14.1 percent (Figure 1.1.10).

Figure 1.1.9. Trade and catering enterprises turnover, *growth compared to the same period last year, percent*

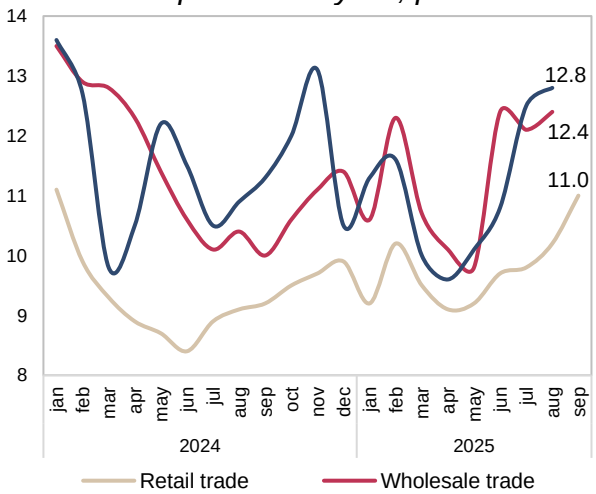
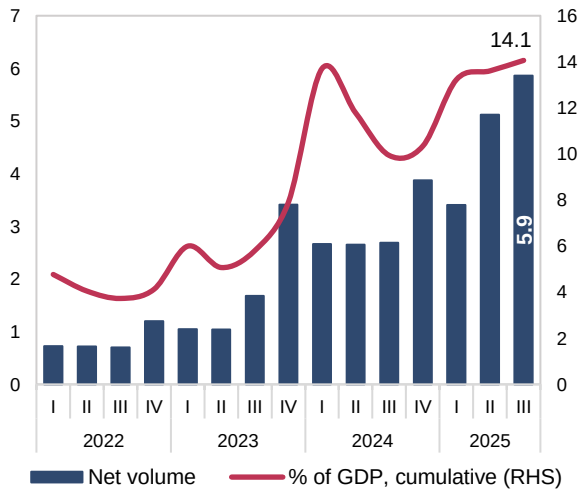


Figure 1.1.10. Dynamics of foreign direct investments, *bln USD*



Source: National Statistics Committee.

At the same time, both centralized and decentralized investments[1] **directed to fixed capital** increased markedly compared to the previous year, amounting to 11.9 percent and 15.6 percent, respectively (Figure 1.1.11).

Another indicator of economic activity – the volume of **interbank transactions** – continued to record strong growth, increasing by 54 percent in September compared to the same period last year.

The sustained high growth rates (24.0 percent) in **revenues from trade and paid services** also indicate strong consumer activity (Figure 1.1.12).

In addition, activity in the **real estate market** has also remained positive. In particular, the number of transactions concluded in the real estate market during the first nine months of 2025 increased by 11 percent compared to the same period last year, reaching 274 thousand (Figure 1.1.13).

During this period, prices in the secondary housing market rose by 1.7 percent in national currency and 5.0 percent in U.S. dollars compared to the same period last year. The increase in dollar terms is explained by the appreciation of the national currency this year (Figure 1.1.14).

Figure 1.1.11. Investments in fixed assets, *compared to the corresponding period of last year, percent*

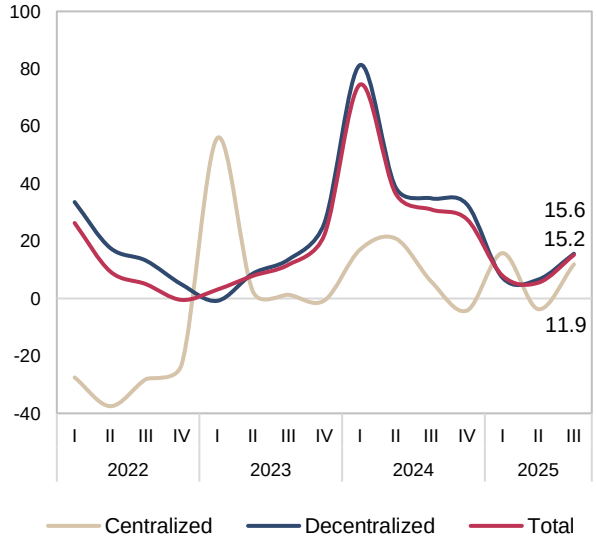
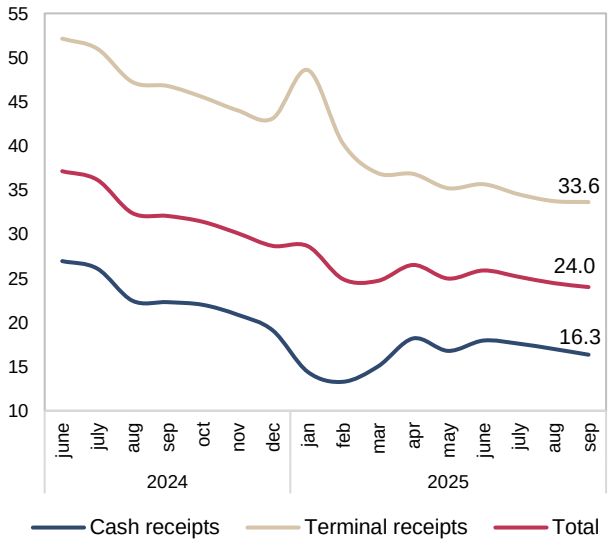


Figure 1.1.12. Revenues from trade and paid services, *change compared to the corresponding period last year, percent*



Source: National Statistics Committee.

[1] Centralized investment covers budget, state funds, UFRD investments; decentralized innvestments covers enterprise and household investments

Figure 1.1.13. Number of transactions in the real estate market, *thousand*

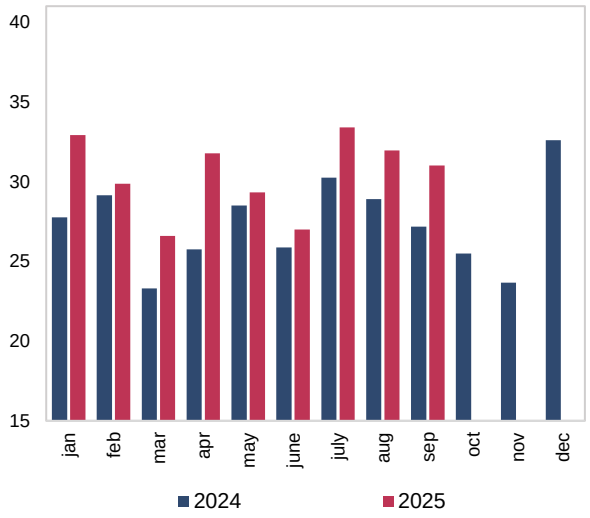
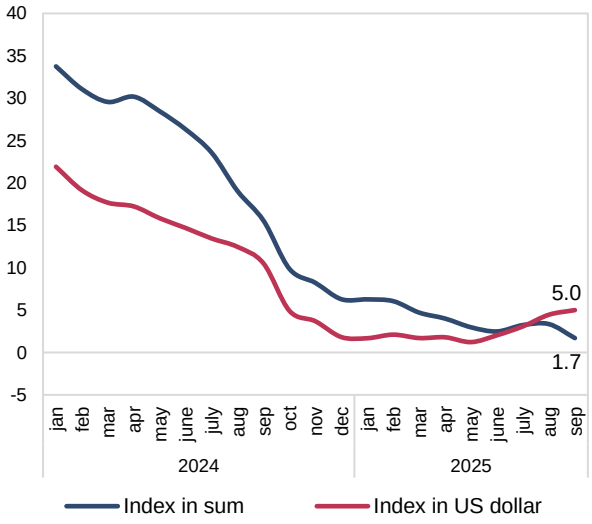


Figure 1.1.14. Price index in secondary housing market, *growth compared to the same period last year, percent*



Source: CBU calculations.

In the **labor market**, a notable increase in the number of available vacancies is being observed. According to data from publicly accessible online platforms listing job openings, business entities offered 9.6 percent more vacancies during 2025 Q3 compared to the previous quarter. A substantial share of these vacancies was recorded in manufacturing (10.9 percent), construction (26.9 percent), and other sectors (9.5 percent) *(Figure 1.1.15).* The 10-percent increase in the monthly wages of public sector employees in August this year, along with the continued stability of remittance inflows from abroad, has contributed to the strong growth in aggregate household incomes.

Figure 1.1.15. Number of listed vacancies, *thousand*

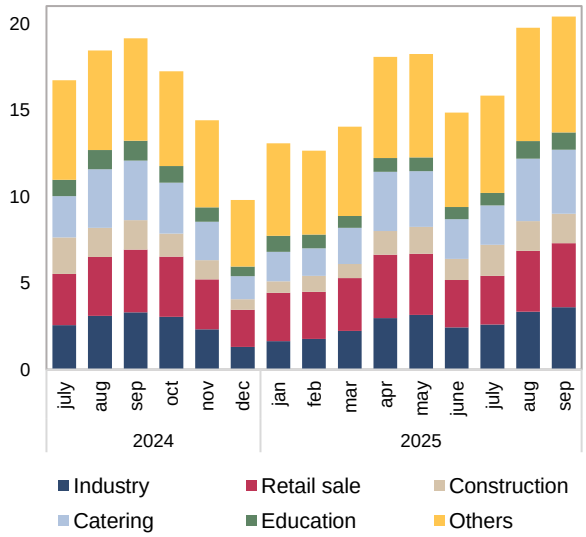
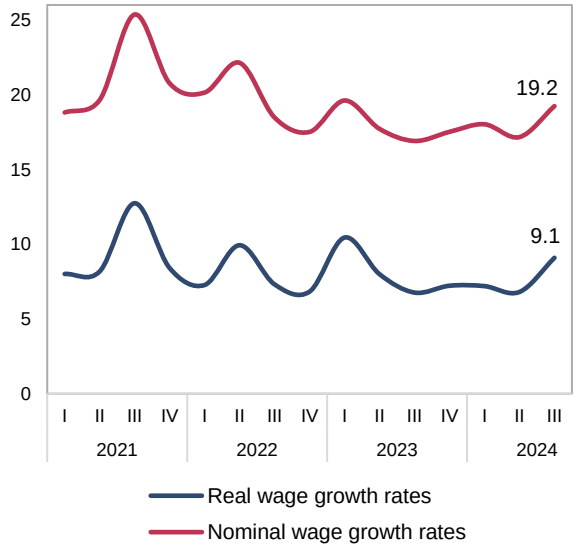


Figure 1.1.16. Wage growth, *percent*



Source: CBU calculations based on open-source data and National Statistics Committee data.

In 2025 Q3, the nominal wage growth rate amounted to 19.2 percent year-on-year, while real wage growth stood at 9.1 percent (Figure 1.1.16). The average monthly wage reached approximately 6.2 mln soums.

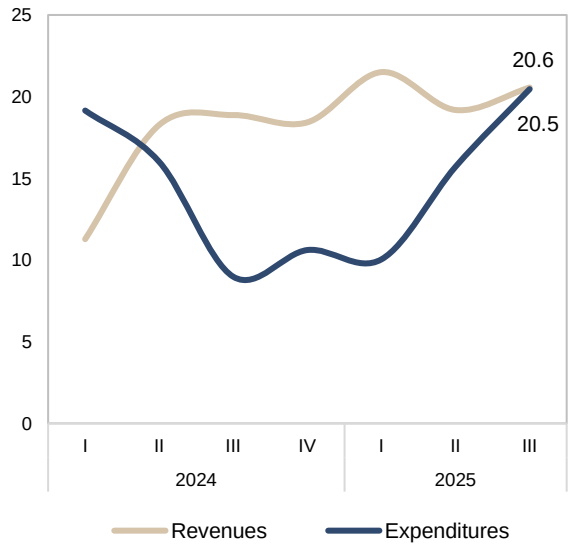
Fiscal conditions. In the first half of 2025, the negative gap between consolidated budget expenditures and revenues has been narrowing. In 2025 Q2, the consolidated budget deficit amounted to 3.4 percent (or 16.0 trln soums).

Although the state budget revenue growth has exceeded the growth rate of expenditures this year (mainly due to higher gold prices), expenditure growth has nonetheless accelerated significantly.

In particular, during the first nine months of 2025, state budget revenues grew by 20.6 percent year-on-year (compared to 19 percent in the same period of 2024), while expenditures increased by 20.5 percent (compared to 9 percent growth in the same period of 2024) (Figure 1.1.17).

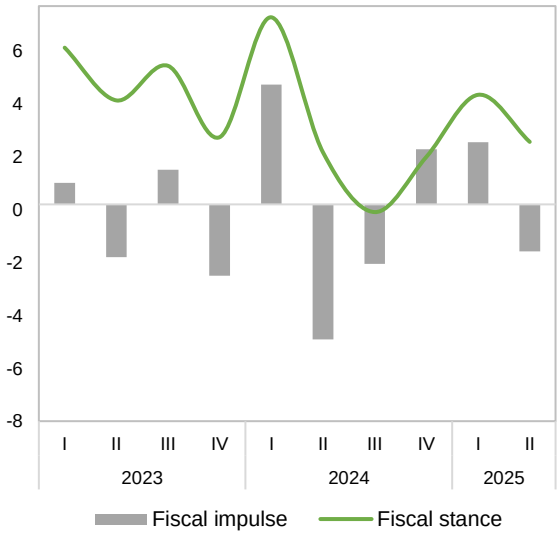
During the first nine months of 2025, the execution of budget expenditures relative to the plan set at the beginning of the year amounted to 90.4 percent (compared to 78.1 percent in the corresponding period of 2024).

Figure 1.1.17. Growth rate of budget revenues and expenditures, *percent*



Source: CBU calculations based on MEF[3] data.

Figure 1.1.18. Fiscal stance[2], *as a percentage of GDP*



Source: CBU calculations based on National Statistics Committee data. Note: Net quarterly GDP was used to calculate the fiscal stance.

[2] **Fiscal stance** indicates whether fiscal policy is expansionary, contractionary, or neutral. **Fiscal impulse** shows to what extent fiscal stance is expansionary or contractionary in the current period (t) relative to the previous period (t–1).
[3] Ministry of Economy and Finance.

The current fiscal stance indicator shows that expansionary fiscal policy has continued in the economy in recent periods.

However, fiscal impulse turned negative in 2025 Q2 (Figure 1.1.18). This indicates that expansionary fiscal policy was limited compared to Q1, which led to a relatively lower output gap for the first half of 2025.

Foreign trade. Export growth reached 33.3 percent during the first nine months of this year compared to the same period of last year, while non-gold exports grew by 18.7 percent (Figure 1.1.19). Favorable global commodity price conditions and a significant increase in services exports were among the major contributors to the total export growth.

Imports increased by 15.6 percent compared to the corresponding period of last year. Excluding energy and machinery equipment, import growth amounted to 24.5 percent. Due to last year's low base effect, as well as stronger consumption and more active lending this year, import growth is expected to accelerate further toward the end of the year.

In the first nine months of 2025, remittance inflows amounted to 13.9 bln USD, increasing by 23.5 percent compared to the same period of last year (Figure 1.1.21). This significant growth is mainly explained by the appreciation of the currencies of migrant-receiving countries, strong economic activity, and sustained demand for labor.

Figure 1.1.19. Export growth, *cumulative, percent*

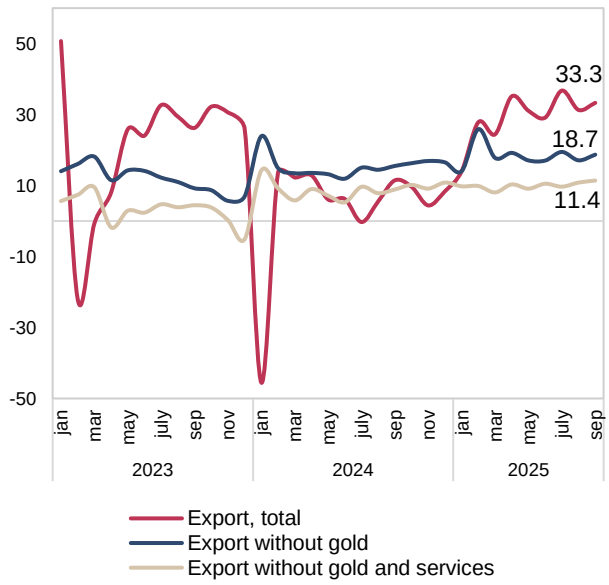
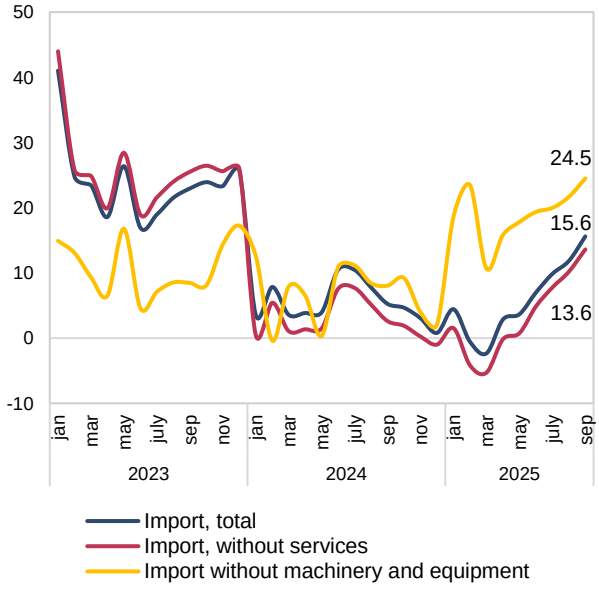


Figure 1.1.20. Import growth, *cumulative, percent*



Source: CBU calculations based on open-source data and National Statistics Committee data.

Figure 1.1.21. Cross-border remittances, *bln USD*

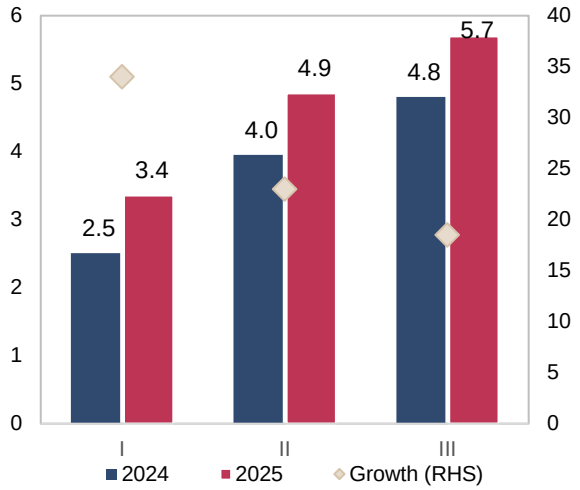
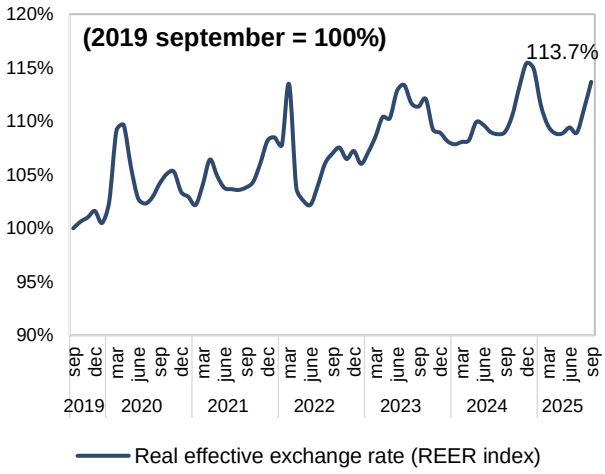


Figure 1.1.22. Real effective exchange rate, *percent*



Source: CBU calculations based on open-source data and National Statistics Committee data.

The current account deficit amounted to 156.3 mln USD in the first half of 2025 (or 0.2 percent of GDP), showing a substantial decline compared to last year (a deficit of almost 2.9 bln USD or 5.3 percent of GDP in the first half of 2024). This improvement was driven by a sharp reduction in the goods trade deficit due to gold exports, as well as an increase in secondary income inflows.

Real effective exchange rate (REER). During January-September 2025, the real effective exchange rate depreciated by 1.5 percent. This was driven by inflation in trading partner countries and the dynamics of their exchange rates. In general, external factors exerted a downward effect on the REER (Figure 1.1.22).

Starting from July, owing to domestic factors and exchange rate dynamics in certain foreign trading partners, the REER has moved closer to its long-term trend level, resulting in a gradual narrowing of the negative gap. Throughout the year, REER dynamics had a moderating effect on domestic inflationary processes.

1.2. Inflation dynamics and its factors

In January-September 2025, headline inflation evolved in different directions under the influence of several demand and supply-side factors. While in 2025 Q1 headline inflation accelerated due to disruptions in the supply of main food products[4], inflation indicators declined in May as the first-round effects of the 2024 energy price liberalization faded. In 2025 Q3, headline inflation fell to 8.0 percent in September amid slowing demand factors and the appreciation of the exchange rate.

*Inflation excluding the impact of energy price increases amounted to **6.8** percent, which is **0.6** percentage points higher than at the beginning of the year. This indicates that inflationary pressures persist in the economy.*

A number of external and domestic factors also influenced inflation developments. The appreciation of the exchange rate starting from Q3 contributed to the slowdown of import inflation and helped stabilize inflation in the non-food goods category to a certain extent.

The high volume of remittances and active retail lending have supported household purchasing power, thereby sustaining inflationary pressures in the economy. Against the backdrop of strong economic activity, the growth in real household incomes suggests that the demand-side pressures may remain in the period ahead.

In addition, the rise in production, transportation and storage costs through the second-round effects of energy price liberalization has continued to contribute to supply-side inflationary pressures.

In the first half of 2025, **core inflation** followed an upward trajectory and accelerated to 8.6 percent in June. In Q3, core inflation shifted to a downward path influenced by the moderation of demand factors due to tight monetary conditions and the appreciation of the exchange rate, decreasing to 7.0 percent year-on-year in September.

At the beginning of the year, the share of goods and services in the consumer basket whose prices slowed compared to the same period of last year was around 30 percent. Over the year, this indicator gradually increased and reached 66 percent in September. This, in turn, indicates that price stabilization has begun to take on a broad-based character.

[4] Include food items with the largest weights in the CPI basket.

Figure 1.2.1. Cumulative inflation of goods and services in the CPI compared to the previous year's level, *percentage shares*

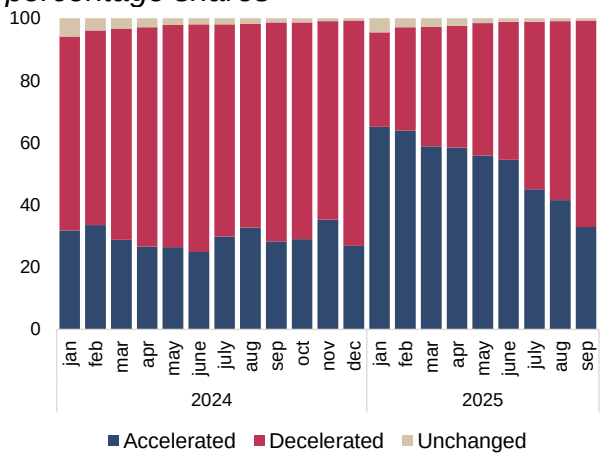
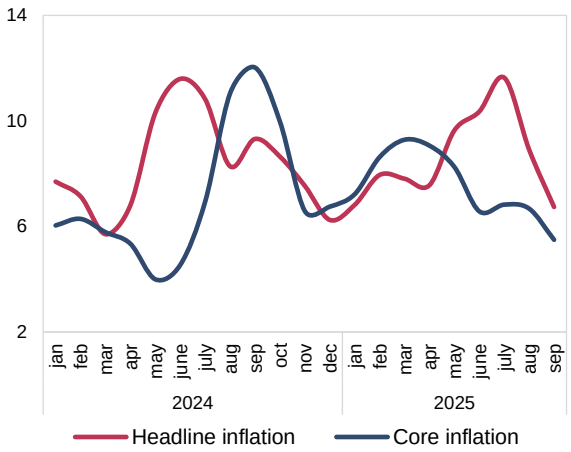


Figure 1.2.2. Seasonally adjusted annual inflation, *percent*



Source: CBU calculations based on National Statistics Committee data.

In recent months, the dynamics of seasonally adjusted headline and core inflation have shifted to a downward trend. These developments indicate easing of inflationary pressures due to tight monetary conditions and the appreciation of the exchange rate.

Alternative measures of core inflation also indicate that inflation dynamics moved to a downward trajectory in 2025 Q3. In particular, trimmed inflation fell by 1.1 percentage points to 5.0 percent, while the CPI median declined by 1.0 percentage point to 4.1 percent in this quarter.

Nevertheless, core inflation has not decreased significantly since the beginning of the year, which demonstrates that demand-side factors continue to play an important role in inflationary developments.

This year, goods inflation has consistently formed at a lower level than services. At the same time, food prices showed upward dynamics owing to the low base of fruit and vegetable prices last year, as well as external supply factors affecting meat and oil products.

Although fuel price increases exerted upward pressure on non-food inflation, the appreciation of the exchange rate and the resulting decline in import prices helped stabilize inflation in this group.

At the same time, services inflation, even excluding regulated prices, continues to remain above headline inflation. This indicates the persistence of inflationary processes and suggests that containing them will require maintaining tight monetary conditions for a longer period.

Figure 1.2.3. Headline and core inflation dynamics, *percent*

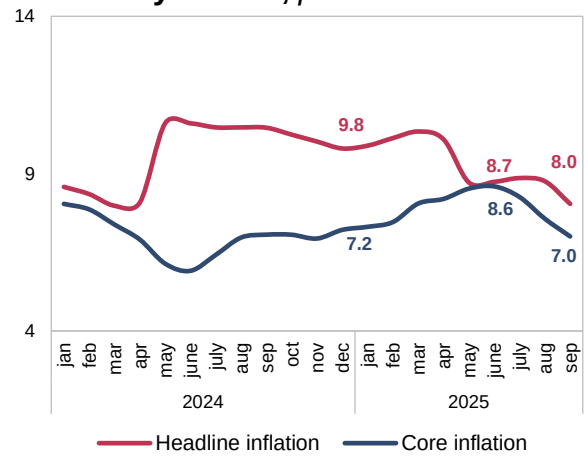
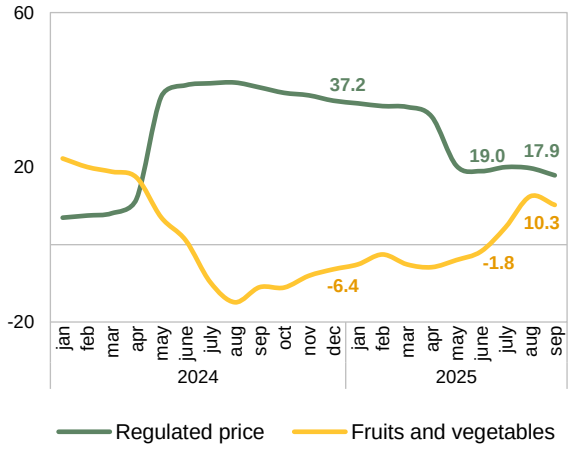


Figure 1.2.4. Regulated prices and fruit-and-vegetable inflation, *percent*



Source: CBU calculations based on National Statistics Committee data.

The noticeable persistence of inflationary pressures in the economy is also reflected in the GDP deflator and the producer price index. In the first half of 2025, although the GDP deflator displayed a declining trend (from **13.3** percent to **12.4** percent), deflators across sectors moved in different directions.

In particular, after the slowdown observed in Q1, deflators in industry and services accelerated in Q2. This can be attributed to the increase in energy prices for legal entities in May 2025.

In 2025 Q2, the industry deflator rose to 13.8 percent (by 1.7 percentage points), while the services deflator accelerated to 12.1 percent (by 0.5 percentage points). The upward trend in deflators in these sectors raises concerns about their potential pass-through to domestic prices in the coming periods.

After a seasonal increase at the beginning of the year, the agricultural deflator decreased to 8.2 percent in 2025 Q2. In the second half of 2025, this group's deflator may shift to an upward trend amid the fading of the previous year's low base effects, as well as concerns regarding further problems related to energy supply and cultivation. This implies that the accelerating pressures from this group on headline inflation may persist.

At the same time, the producer price index amounted to 13.0 percent in August. This reflects the decrease from 13.8 percent following the energy price increase in May. However, it is still 5.0 percentage points higher than headline inflation. Such a large difference suggests that inflationary pressures are likely to be persistent in the coming quarters.

Figure 1.2.5. CPI inflation, GDP deflator, and PPI inflation dynamics, *percent*

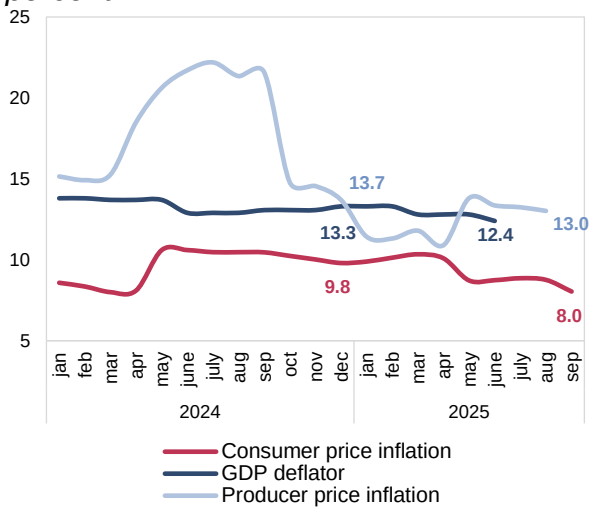
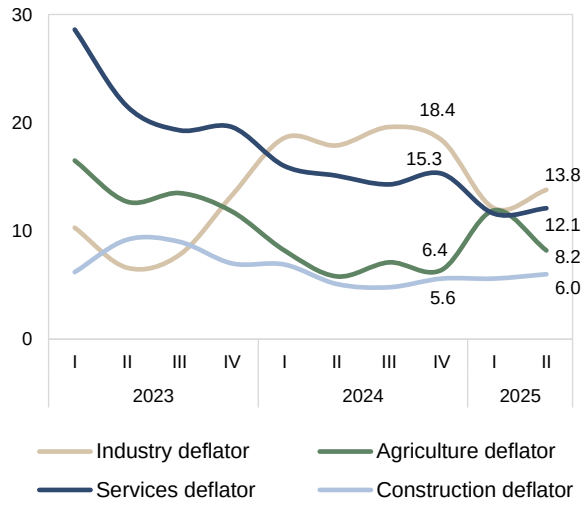


Figure 1.2.6. GDP deflator and its sectoral dynamics, *percent*



Source: CBU calculations based on National Statistics Committee data.

Inflation Expectations Dynamics

A significant increase was observed in the inflation expectations of households and business entities in January-February 2025. However, the expectations followed a declining trend throughout March-September (Figure 1.2.7).

According to the results of the conducted surveys, the main factors influencing the high level of inflation expectations cited by respondents were the increase in utility service tariffs and the rising cost of fuel and energy resources.

Figure 1.2.7. The difference between inflation expectations and headline inflation, *percent*

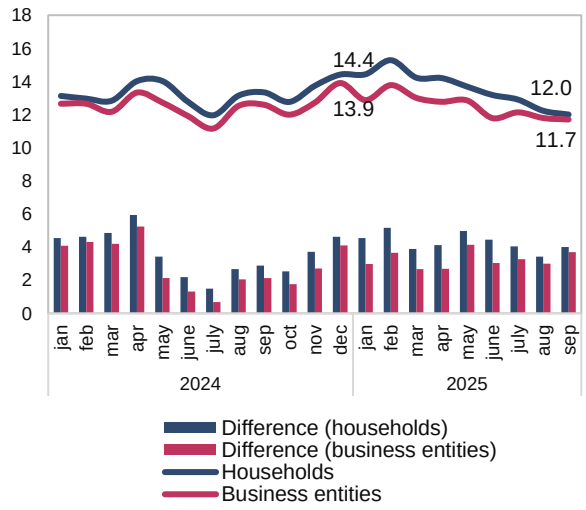
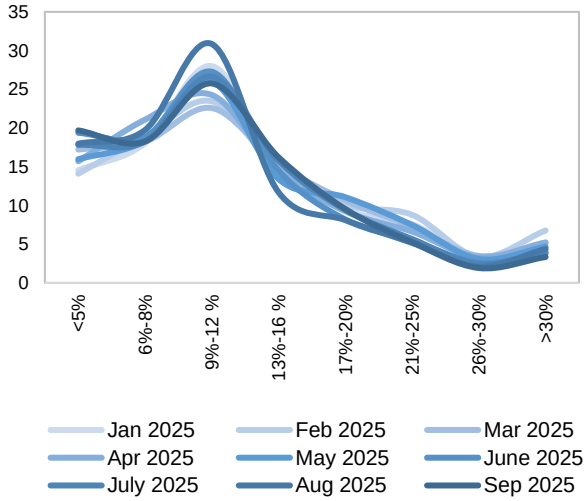


Figure 1.2.8. Distribution of inflation expectations



Source: CBU calculations.

At the same time, the inflationary pressures stemming from the exchange rate change on expectations are diminishing (Figure 1.2.9). This can mainly be explained by the appreciation of the national currency – the soum – against the US dollar since the beginning of the year.

Figure 1.2.9. Factors affecting inflation expectations of households and business entities, *share of respondents, percent*

households

	2025								
	jan	feb	mar	apr	may	june	july	aug	sep
Increase in the price of utility services	57	63	59	59	57	50	51	48	46
Increase in the price of fuel and energy resources	50	52	48	47	49	45	45	41	41
Increase in wages and pensions	22	23	20	18	22	35	34	31	27
Increase in transportation costs	30	31	28	29	32	30	27	26	25
Increase in the price main food products	26	28	28	26	25	22	24	26	25
Changes in exchange rate	46	41	39	38	37	27	30	24	22
Monopoly and artificial increase in prices	25	32	26	26	26	24	24	22	22

business entities

	2025								
	jan	feb	mar	apr	may	june	july	aug	sep
Increase in the price of utility services	54	58	52	55	54	47	47	45	44
Increase in the price of fuel and energy resources	49	50	45	46	48	43	42	40	41
Increase in transportation costs	32	34	31	31	37	32	31	31	30
Increase in wages and pensions	26	22	23	23	24	33	34	33	29
Increase in the price of raw materials	25	27	25	27	28	25	25	24	26
High tax burden	24	27	26	27	27	25	26	24	24
Changes in exchange rate	51	43	43	43	40	31	31	25	22

Source: CBU calculations.

Although inflation expectations have been declining throughout the year, the 3–5 percentage point gap between headline inflation and inflation expectations has persisted, and this gap has widened further.

In addition, expectations followed different directions and varied significantly across regions, sectors, and income groups.

The high dispersion of expectations among economic agents can mainly be explained by the relatively high level of inflation persisting in the economy and strong sensitivity to the factors that determine price formation (Figure 1.2.8).

It should be noted that transitioning to an inflation targeting regime requires strengthening confidence in the Central Bank's commitment to price stability and anchoring expectations within the target range. Reducing the dispersion of expectations and sensitivity to temporary shocks is an important prerequisite for this.

1.3. Monetary policy measures and their impact

Amid persistently high inflationary pressures in the economy, steadily growing demand, and heightened inflation expectations among households and businesses in 2025 Q1, the Board of the Central Bank raised the policy rate by 0.5 percentage points in March, setting it at 14 percent per annum.

As a result, the real level of the policy rate (calculated relative to the current headline inflation rate) increased, and this decision contributed to a further tightening of monetary conditions in the economy (Figure 1.3.1).

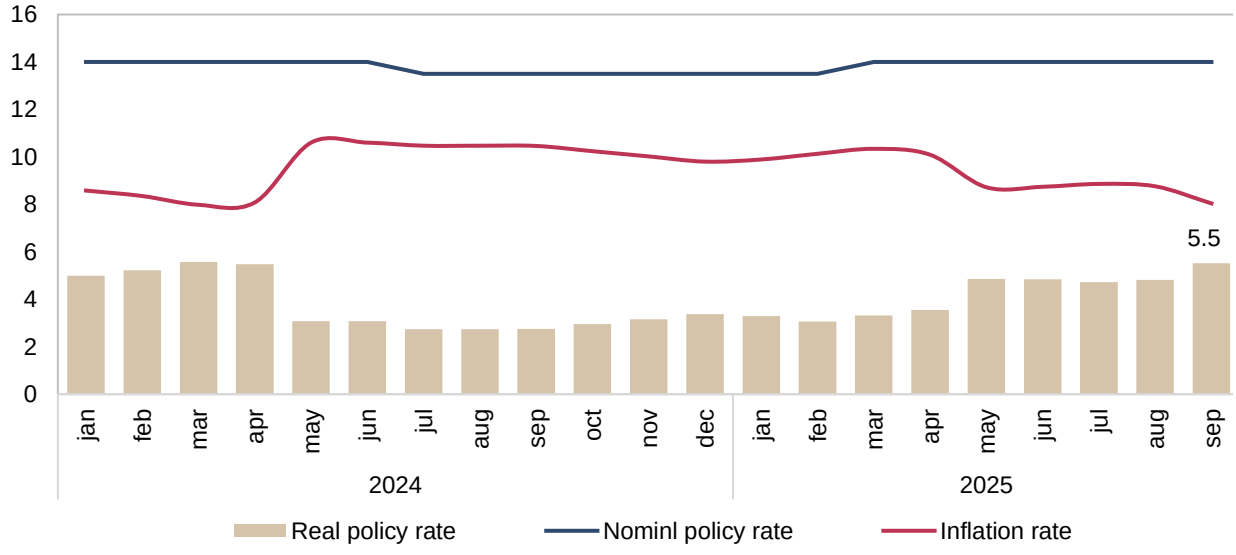
Inflation expectations of households and business entities have been declining despite some fluctuations. However, given that they remain above headline inflation, and considering the continued inflationary effects of economic activity and strong consumer demand, the Board of the Central Bank has kept the policy rate unchanged in recent meetings.

This, in turn, helped to ensure the real policy rate forms around 5.5 percent and monetary conditions in the economy are maintained at a relatively tight level.

The formation of relatively tight monetary conditions in the economy can also be observed in the table of alternative indicators (Figure 1.3.2).

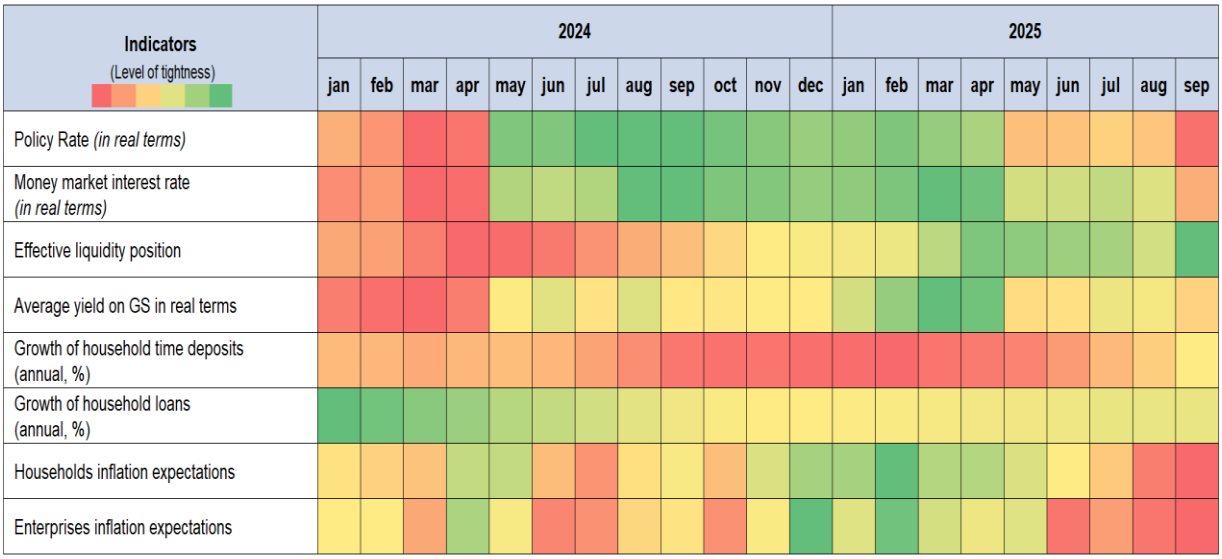
An analysis across indicators confirms that the indicators related to real interest rates, as well as the inflation expectations of households and business entities, show that monetary conditions have been forming at a relatively tight level since early June.

Figure 1.3.1. Real policy rate dynamics, *percent*



Source: CBU calculations.

Figure 1.3.2. Indicators of monetary conditions



Source: CBU calculations.

In turn, the strengthening of the exchange rate – driven by favorable external economic conditions and positive trends in foreign currency inflows into the country – has also contributed to the tightening of monetary conditions through the exchange rate channel.

To manage liquidity in the banking system effectively and regulate interest rates in the money market, several amendments were introduced this year to the Central Bank's monetary policy instruments and operational framework, which ultimately resulted in more active monetary operations.

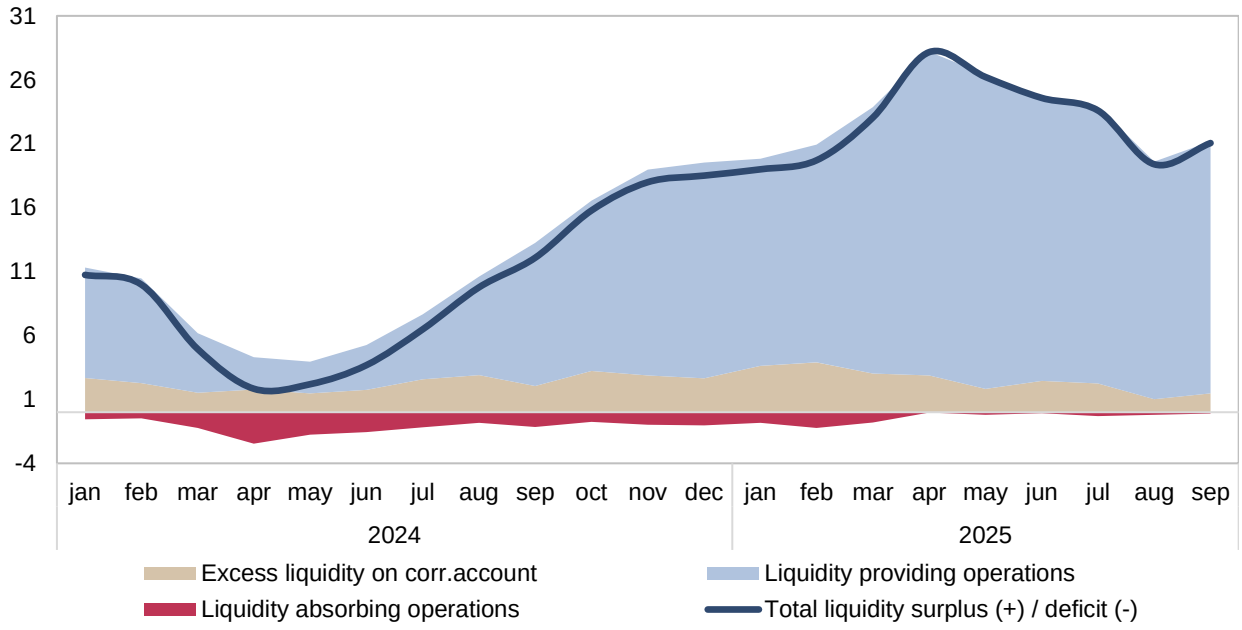
In particular, in order to align the required reserve requirements instrument with international standards, enhance its effectiveness, and ensure that interest rates on deposits and other liabilities are formed on equal terms when commercial banks raise resources, previously uncovered liabilities of commercial banks have begun to be gradually incorporated into the reserve requirement base.

To prevent excessive burdens on banks during the transition toward the revised framework, it is planned to gradually include new bank accounts in the reserve requirement calculations over the period 2025–2030, while proportionally lowering the reserve requirement ratios.

Specifically, in April and October of this year, the coverage of new liabilities in the reserve requirement base was increased to 10 and 15 percent, respectively. The reserve requirement ratios for liabilities in the national currency were set at 4 percent, while for foreign-currency liabilities, at 10.5 percent in April and 9.5 percent in October.

As a result, the additional liquidity accumulated in the correspondent accounts of banks decreased by an average of 1.2 trln soums during January-September of this year (Figure 1.3.3).

Figure 1.3.3. Total liquidity position of the banking system, *trln soums*



Source: CBU calculations.

Moreover, to manage the accumulated liquidity surplus, the Central Bank increased the average monthly volume of liquidity absorbed through its main liquidity-absorbing monetary policy operation – **7-day deposit auctions** – from 2 trln soums in January to an average of 8.6 trln soums in July.

For commercial banks that placed liquidity through the Central Bank's 7-day deposit auctions, the limited ability to use these funds during the specified period and the absence of collateral for such placements led to a decline in the effectiveness of the monetary policy transmission mechanism.

In this regard, starting from August, the Central Bank introduced the practice of absorbing liquidity through 7-day Central Bank bills, replacing the 7-day deposit auctions as the main liquidity-absorbing monetary policy operation.

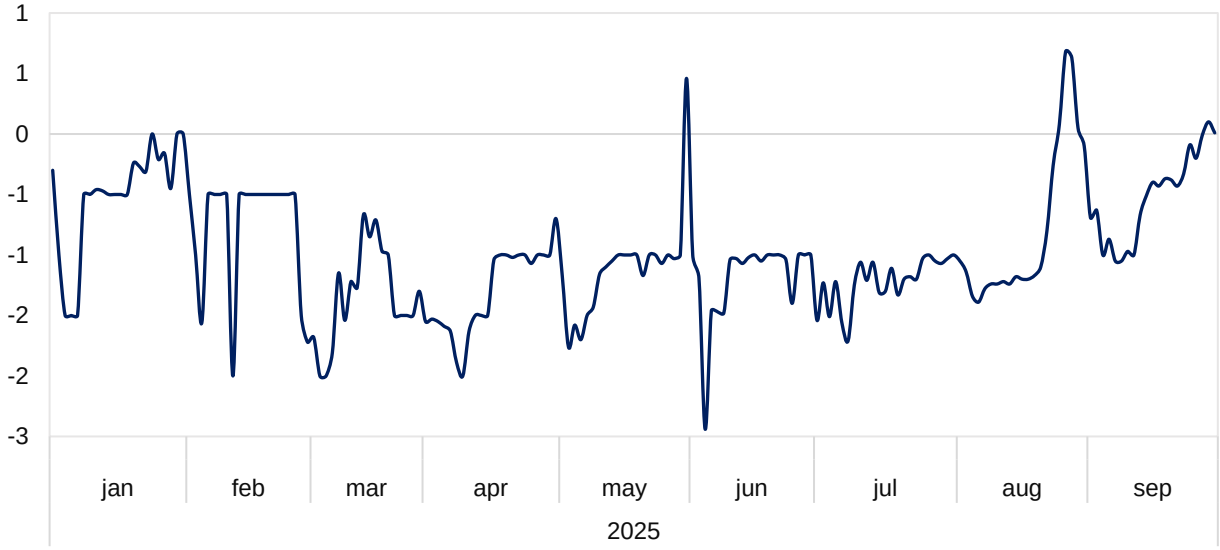
It should be noted that during January-August of this year, the Central Bank issued a total of 23.7 trln soums worth of bills with various maturities, and starting from August, only 7-day bills are being issued.

As a result, 41.7 trln soums and 62.9 trln soums of liquidity were absorbed through 7-day bills in August and September, respectively, and as of 1 October, their outstanding balance amounted to 16 trln soums.

Furthermore, the average daily balance of overnight deposit operations changed only slightly compared to the figure observed in January (2.5 trln soums), standing at 2.4 trln soums in September.

As a result of the conducted operations, the deviation of the UZONIA rate from the key policy rate, which had persisted since the beginning of the year, was minimized in August-September (Figure 1.3.4).

Figure 1.3.4. Spread between UZONIA and the policy rate, *percentage points*



Source: CBU calculations.

It should be noted that the increase in the spread between UZONIA and the key policy rate was driven by the liquidity surplus formed in the banking system.

Interest rates and transaction volumes in the money market depend on the total liquidity in the banking system. In January-September 2025, the average daily total liquidity of the banking system was 22.7 trln soums (Figure 1.3.5).

During the first nine months of the year, interbank money market transactions amounted to 599 trln soums, increasing by 67.4 percent compared to the same period last year (Figure 1.3.6).

The share of interbank REPO operations in the overall money market averaged 66 percent (46 percent in the same period last year).

The growth in both the volume and share of REPO operations in the interbank segment in recent years can be explained by the development of the government securities market and the use of these securities as collateral in REPO transactions.

Figure 1.3.5. Central Bank monetary operations, *trln soums*

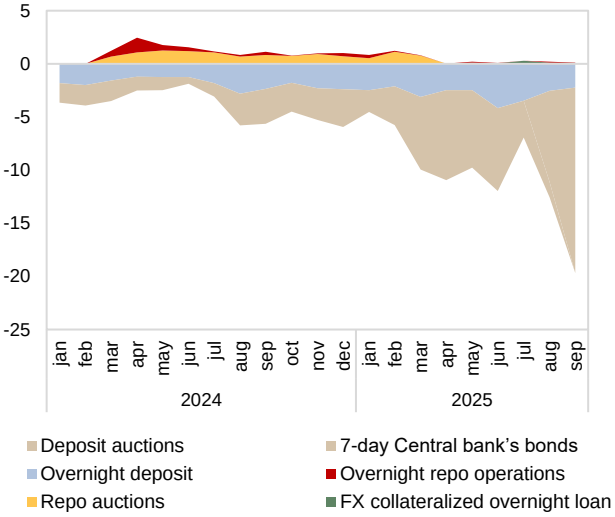
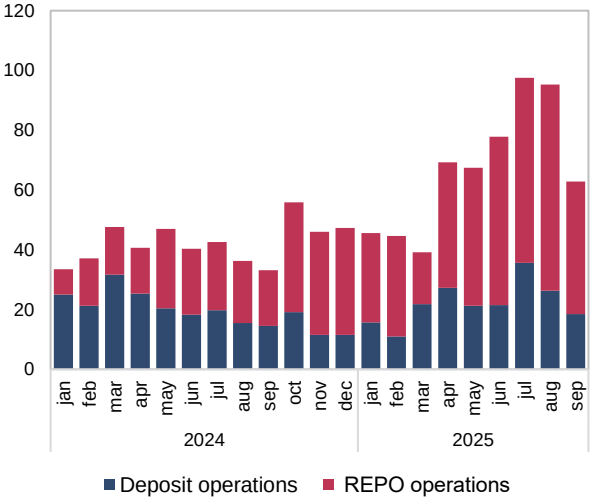


Figure 1.3.6. Money market volume, *trln soums*



Source: CBU calculations.

The pass-through of money market interest rates to real interest rates on deposits and loans has varied. In particular, amid the moderation of inflation expectations in the economy, real interest rates on time deposits in the national currency for households and legal entities have recently increased, reaching 8.2 and 5.3 percent, respectively, in August (Figure 1.3.7).

The rising real interest rates on deposits in national currency are increasing their attractiveness and contributing to a significant growth in their volume.

Figure 1.3.7. Real interest rates on term deposits in national currency, *percent*

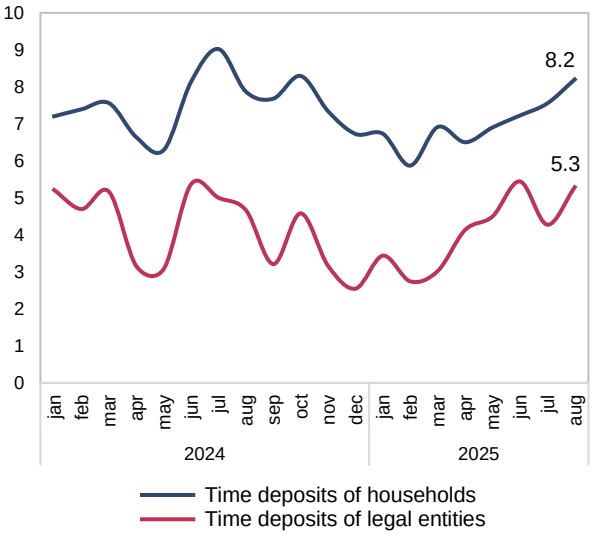
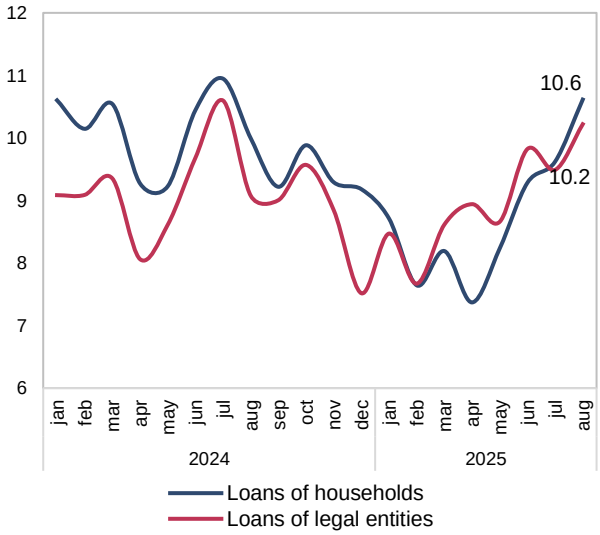


Figure 1.3.8. Real interest rates on loans in national currency, *percent*



Source: CBU calculations.

In particular, since the beginning of this year, retail term deposits in the national currency rose by 25.1 percent (39.8 percent year-on-year), reaching 67 trln soums, while corporate deposits increased by 31.6 percent (41.8 percent year-on-year), reaching 29.2 trln soums.

The increase in real deposit rates, in turn, stimulated a rise in real interest rates on loans. Specifically, in August, the real interest rate on retail loans reached 10.6 percent, while for corporate borrowers it increased to 10.2 percent (Figure 1.3.8).

The rise in real interest rates is leading to relatively tight monetary conditions in the economy. At the same time, due to declining demand for retail loans and easing inflationary expectations, interest rates on soum deposits and loans are expected to decrease in the future.

The Central Bank will continue to ensure sufficient restrictiveness of monetary conditions in the medium term to achieve the 5 percent inflation target.

Box 1

Structural changes in Uzbekistan's export

Uzbekistan is a small open economy with a high share of industrial and commodity exports. Therefore, global economic developments have a significant impact on the country's foreign trade dynamics.

In recent years, the sustained expansion of Uzbekistan's exports has largely reflected favorable global commodity prices, stable growth in major trading partners, strong external demand, and expanding international trade linkages.

Structural reforms being implemented in the country are affecting the composition and geographical directions of foreign trade turnover. In particular, significant changes in the export structure are being observed in the services sector.

Given the below-potential utilization of production capacities, strong competition in global goods markets, and Uzbekistan's strong tourism potential, services exports continue to grow at a faster pace than goods exports (Figure 1). In particular, during 2018-2024, the average growth rate of goods exports was 10%, while services exports increased by an average of 21% over the same period.

The comparatively low domestic price level for services relative to global price levels has enabled the sector to adjust more rapidly to shifts in external demand. Since mid-2022, the contribution of services exports to overall export growth (excluding gold) has exceeded that of goods exports (Figure 2). Strong expansion has been particularly notable in transport, tourism, and information and communication services. Between 2018 and 2024, tourism exports increased 3.4 times, IT services grew fourfold, and transport services expanded by 1.7 times.

Geographic diversification of exports has also expanded, and the contribution of traditional trading partners to overall export growth has been gradually decreasing. In particular, while four major countries (Russia, China, Kazakhstan, and Turkiye) accounted for nearly 64 percent of Uzbekistan's exports in 2017, their combined share declined to 44 percent by the end of 2024.

Figure 1. Export composition, *bln USD*

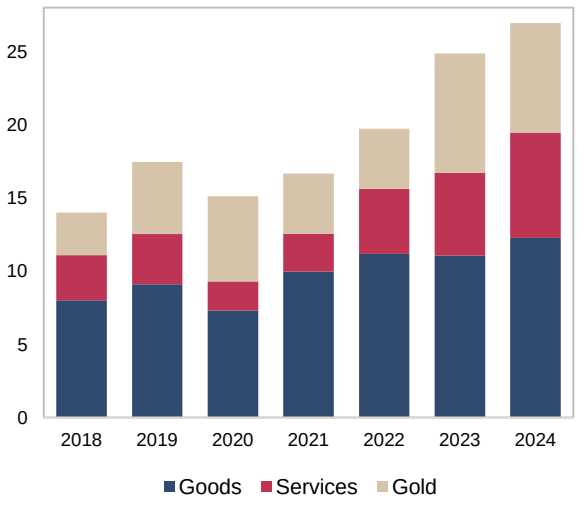
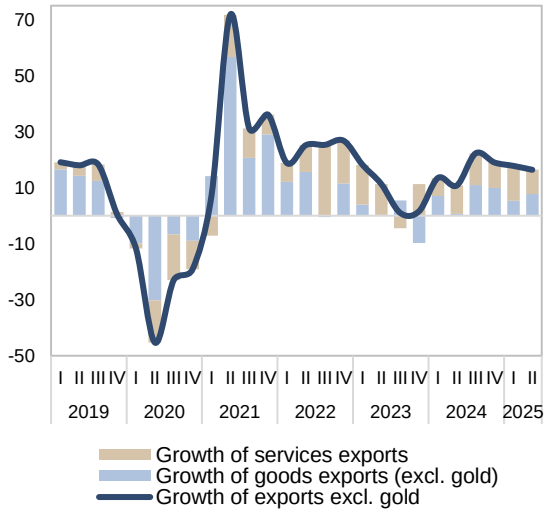


Figure 2. Contribution of goods and services exports to total export growth, *year-on-year, p.p.*



Source: CBU calculations based on National Statistics Committee data.

A decrease in export shares has been observed for China, Kazakhstan, Turkiye, Russia, Iran, the Republic of Korea, and several other countries. Although export volumes to these countries continue to increase, a certain slowdown in export growth rates to some partner countries has been recorded.

At the same time, the rapid increase in trade volumes with other countries has led to a rise in their share in total exports. Nevertheless, these traditional countries continue to remain Uzbekistan's major export partners.

At the same time, an increase in trade flows to new geographic directions is being observed. During the period 2017-2024, a stable growth trend in export volumes to France, the United States, Pakistan, the UAE, Azerbaijan, and a number of other countries was recorded (Figure 4).

The growth of exports in these directions is explained by the rising external demand for domestic products such as uranium, oil products, silk and cotton yarn, fertilizers, copper, household appliances, cereals, and other locally produced goods.

The number of product groups in the export nomenclature has also been increasing. While there were 2,245 items in 2017, by the end of 2024, this list had expanded to 4,359 product positions (Figure 5).

In particular, exports included more than 300 types of food products (mainly legumes and wheat (flour)), nearly 400 types of chemical products (notably mineral fertilizers), around 300 types of finished and processed textile products, over 180 types of products made from ferrous and non-ferrous metals, as well as more than 780 types of machinery and equipment (mainly household appliances).

Figure 3. Contributions of trading partners to total export growth excluding gold, *p.p.*

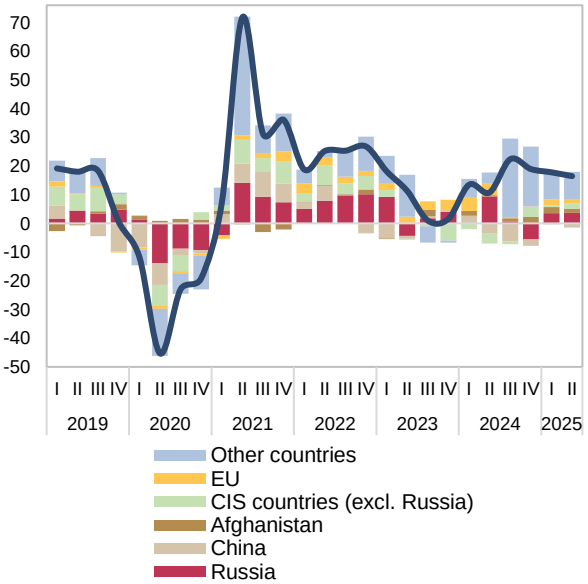
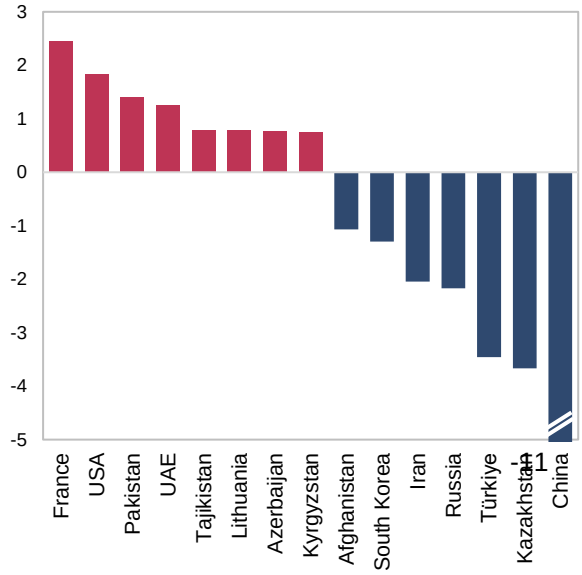


Figure 4. Change in country shares in exports without gold in 2017 and 2024, *p.p.*



Source: CBU calculations based on National Statistics Committee data.

Favorable prices for the main export commodities have been primarily driving the growth in export value. In recent years, the export price index has remained above the levels observed up to 2023, averaging around 35% in 2024-2025 (Figure 6).

Figure 5. Number of items in the export nomenclature, *units*

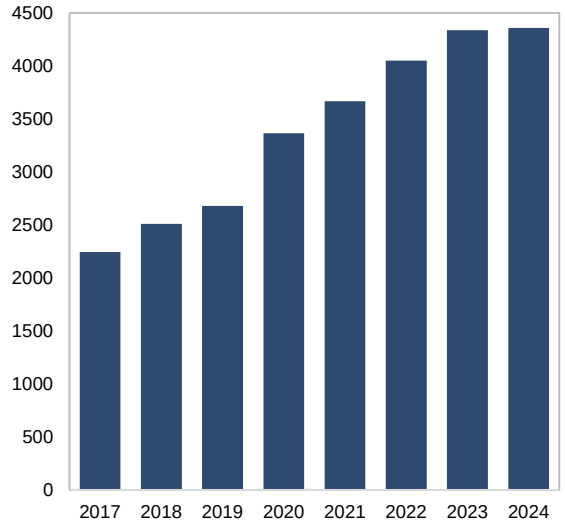
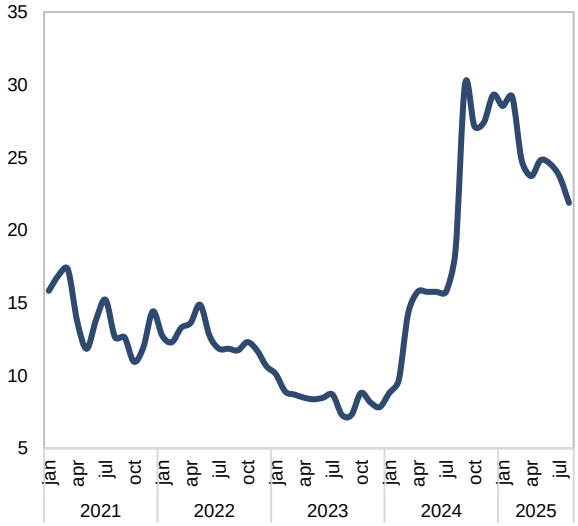


Figure 6. Export price dynamics, *annual, percent*



Source: CBU calculations based on National Statistics Committee data.

With these favorable trends persisting in global commodity markets, the share of commodities in exports is rising, thereby increasing the economy's exposure to fluctuations in world prices. Between 2021 and the first half of 2025, commodities and semi-processed goods accounted for nearly two-thirds of total exported goods.

At the same time, according to the Economic Complexity Index, Uzbekistan's foreign trade structure is more sophisticated than that of its regional counterparts, with the country's ranking improving from 78th in 2017 to 66th in 2023.

Box 2

Analysis of inflation for the main groups in the consumer basket

Food products

Throughout 2025, food inflation showed a steady upward trend, driven by the low base effect of fruits and vegetables from the previous year, as well as supply-related factors for certain goods. Inflation in this group accelerated from 2.6% at the beginning of the year to 6.1% in September.

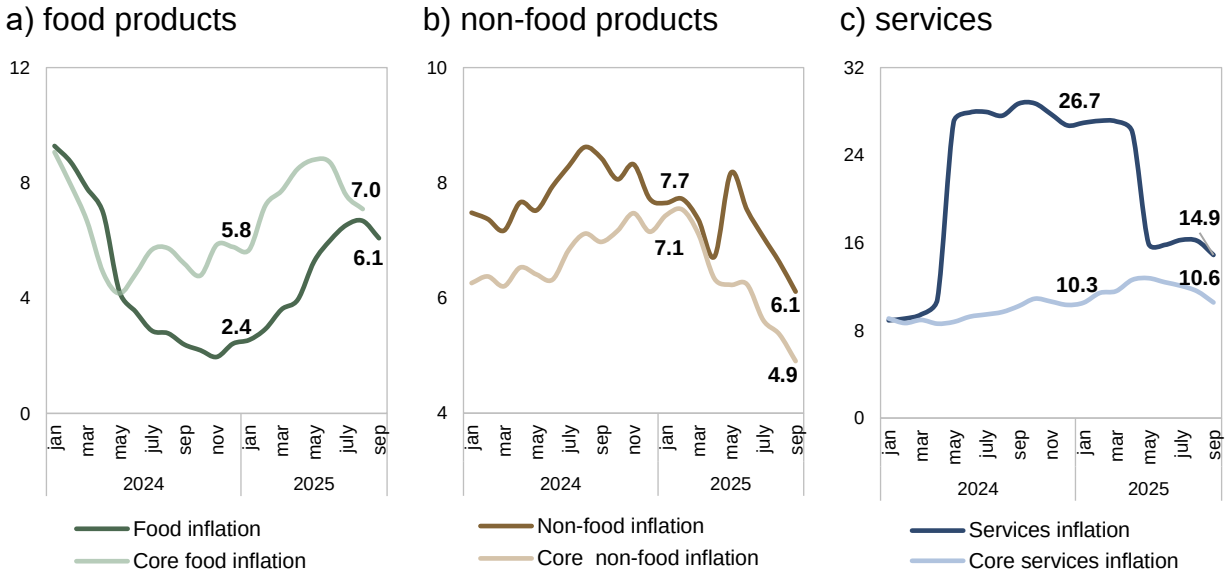
Excluding fruits and vegetables, core food inflation increased by 1.2 percentage points from the start of the year, reaching 7.1% in September.

The deflation observed in fruit and vegetable prices during the first half of the year (falling to -5.8% in April) shifted to a sharp upward trend in Q3 (10.3%). This situation was caused by the fading effects of the previous year's low base and insufficient formation of seasonal reserves. During the first nine months of the year, sharp price increases in carrots (57.5%), onions (22.4%), and potatoes (18.5%) contributed approximately 0.5 percentage points to headline inflation.

Trade restrictions imposed by partner countries on live cattle export caused a significant increase in meat prices. In addition, rises in global market prices this year have noticeably affected vegetable oil prices. Meanwhile, inflation for dairy products remained stable, ranging between 6.6% and 7.0%, while sugar inflation declined to 2.8% in September. Egg prices experienced substantial deflation throughout the year (-3.4% in September).

Although global food inflation has shown a declining trend since the beginning of the year, the upward movement in meat and dairy prices raises concerns about a prolonged pass-through effect on domestic prices.

Figure 1.2.10. Inflation dynamics of the main groups in the CPI basket, *percent*



Source: CBU calculations based on National Statistics Committee data.

Non-food products

During the first nine months of 2025, non-food inflation showed a fluctuating trend, reaching 6.1% in September.

Core non-food inflation, however, followed a steadily declining trajectory, slowing from 7.4% in January to 4.9% in September.

This decline can be attributed to the fading high-base effect from the elevated pharmaceutical inflation in 2024, as well as the appreciation of the exchange rate. Pharmaceutical inflation fell from 25.5% in January to 6.7% in September.

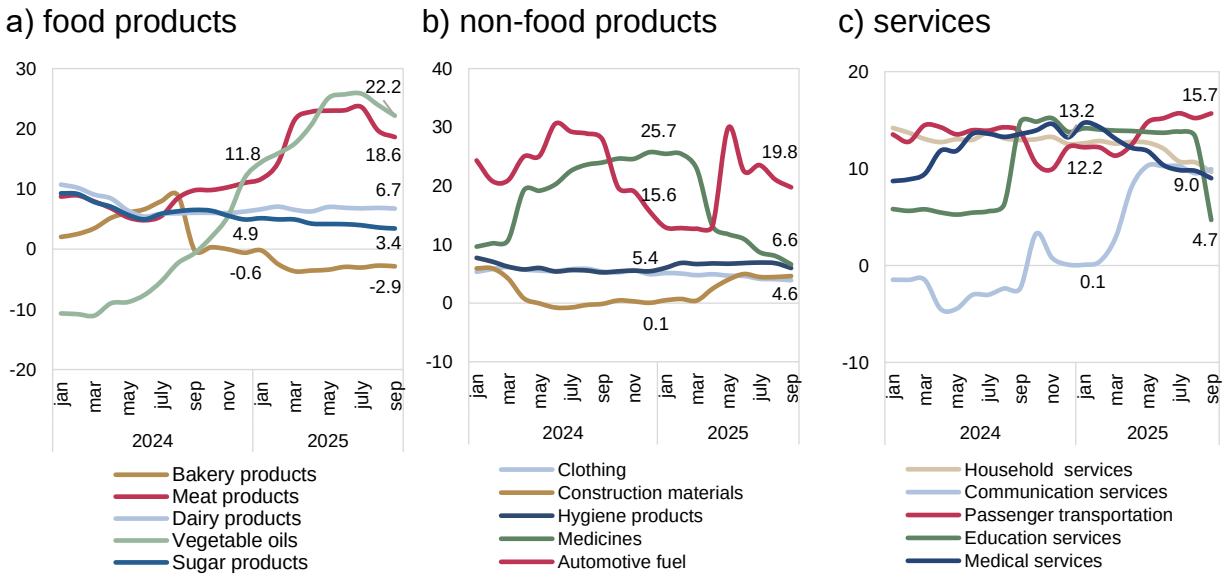
Price changes in certain subcategories had a noticeable upward effect on the overall trend. In particular, fuel inflation remained high at 18.2% in September, significantly above the overall inflation rate.

Due to seasonal activity, inflation in construction materials rose from 0.5% at the beginning of the year to 4.5% in September. This increase was driven by higher production and logistics costs, as well as rising import prices.

Inflation in clothing continued its downward trend, reaching 4.0% in September, while prices for hygiene products remained relatively stable at 5.9%.

Overall, inflation in non-food goods is shaped by opposing factors. On the one hand, the appreciation of the exchange rate helps moderate inflation through import prices. On the other hand, increases in production and logistics costs, along with fluctuations in raw material prices, continue to be key factors contributing to inflationary pressures.

Figure 1.2.11. Inflation dynamics of subgroups, *percent*



Source: CBU calculations based on National Statistics Committee data.

Services

In 2025, services inflation remained a key factor contributing to headline inflation. In Q2, the effect of last year's high base on energy price increases had faded, bringing this indicator down to 15.8% in June. However, the growth rate of energy tariffs remained high at around 14.9% in the third quarter.

Core services inflation stood at 10.6% in September, reflecting the presence of inflationary pressures from aggregate demand.

Price changes in regulated services are continuing to stay relatively high. Inflation in housing and communal services reached 26.1% in Q3. Inflation in regulated prices was around 17.9%.

Among demand-driven services, inflation in total catering services was 11.4%. Legal services increased sharply, reaching 29.1%, while communication services rose to 9.9%.

Transport services showed varied dynamics. Price growth in railway transport slowed to 6.4%, whereas increases in air transport (21.2%) and automobile transport (15.7%) remained high. Meanwhile, inflation in medical services slowed from 14.7% to 9.0%.

II. MACROECONOMIC DEVELOPMENT SCENARIOS AND MONETARY POLICY IN 2026-2028

The Monetary Policy Guidelines for 2026–2028 are based on expectations regarding the medium-term outlook for external and domestic conditions. The **baseline scenario** of macroeconomic development was formulated, and the monetary policy conditions to be pursued under this scenario were determined. At the same time, the **effects** of possible **external and domestic shocks** on inflation and economic activity were assessed.

The **baseline scenario** is grounded in the assumption that external and domestic conditions will continue to evolve at their current pace.

On the **external side**, the key baseline assumptions include: global growth forming at a relatively low rate amid persistent uncertainty in the world economy; a longer-than-expected period for inflation to reach target levels; the absence of sharp fluctuations in currency markets; and gold prices remaining relatively high.

On the **domestic side**, the scenario assumes the stabilization of aggregate demand, a moderation in lending activities, wage growth consistent with labor productivity, remittance inflows returning to their medium-term trajectory, stable investment inflows, and the fiscal deficit not exceeding 3 percent of GDP in the medium term (Figure 1).

The impact of **potential external and domestic shocks** on inflation and output was assessed relative to the baseline scenario and based on their effect on the level of aggregate demand and supply (Figure 2).

Under the baseline scenario as well as under shock conditions, monetary policy will remain oriented toward reducing inflation to the 5 percent target level. Throughout the period, monetary policy decisions and measures will be adjusted in line with changes in inflation dynamics, underlying factors, and forecasts of key macroeconomic indicators.

Table 1. Conditions Under the Baseline Scenario

	Factors Affecting Aggregate Demand	Factors Affecting Aggregate Supply
External conditions	Ongoing geopolitical tensions, persistent uncertainty in the global economy, and instability in trade policies increase concerns about further economic fragmentation. As a result: • Global economic growth remains below pre-pandemic averages; • Although global inflation continues to decline, countries are expected to reach their targets later than anticipated; • Gradual decline in inflation supports the continuation of the global monetary easing cycle; • Demand for gold continues to increase under global uncertainty, keeping its prices at high levels; • Inflation in major trading partners follows a downward trajectory, and their monetary policy stances are gradually eased; • Economic activity in major trading partners accelerates due to fiscal stimulus and monetary easing; • Remittance inflows increase close to their medium-term trend growth.	• Prices in global food markets continue to rise at a moderate pace. • No sharp changes and volatility in currency markets are observed.
Domestic conditions	• Real wage growth remains positive and increases in line with labor productivity; • Growth in consumer and retail lending moderates; • Private investment continues to expand, supported by privatization processes and strong economic activity; • Corporate demand for credit moderates; • Total fiscal deficit forms around 3% of GDP in the medium term, with fiscal stance being countercyclical.	• Demand for energy resources in the economy remains high; • Energy prices grow at the same rate as inflation in the coming years; • Administered prices (utilities, public transport services, state education services, etc.) are adjusted in line with inflation; • No sharp changes in climate or weather conditions are expected.

Table 2. Potential external and domestic shocks to macroeconomic development

	Demand	Supply
External shocks	A sharp depreciation in currencies of the main trading partners	A significant rise in global prices of imported food products
	A rapid increase/decrease in gold prices	
Domestic shocks	Expansion of the fiscal deficit	Energy supply interruptions
	Higher consumer demand due to broader financial inclusion	Deterioration in climate and weather conditions
		Above-inflation hikes in regulated prices
		Changes in privatization processes and the competitive environment

2.1. The Baseline Scenario of Macroeconomic Development and Monetary Policy

External economic conditions

Economic growth. The baseline scenario of macroeconomic development assumes the persistence of high uncertainty in the global economy, driven by U.S. trade and immigration policies, geopolitical tensions in the Middle East and Eastern Europe, and the growing fragmentation among countries by dividing into aligned blocs.

This is likely to slow global economic growth, and increase global inflationary pressures through additional transaction costs. Meanwhile, expansionary fiscal policies in several countries and investment directed toward new technologies are expected to support global economic growth.

According to the forecasts, global GDP growth in 2026–2028 is expected at 3.2%, which is below the pre-pandemic average (Figure 2.1.1).

Inflation. Although **global inflation** is projected to continue declining in the coming years, inflation in services is expected to remain elevated in many countries, increasing the likelihood that returning to target levels will take longer than previously anticipated.

Additionally, despite partial progress in trade negotiations, average tariff levels remain higher than in previous years. This, along with intensifying geoeconomic fragmentation, continues to affect global price levels.

Figure 2.1.1. Global economic growth outlook, *real growth, percent*

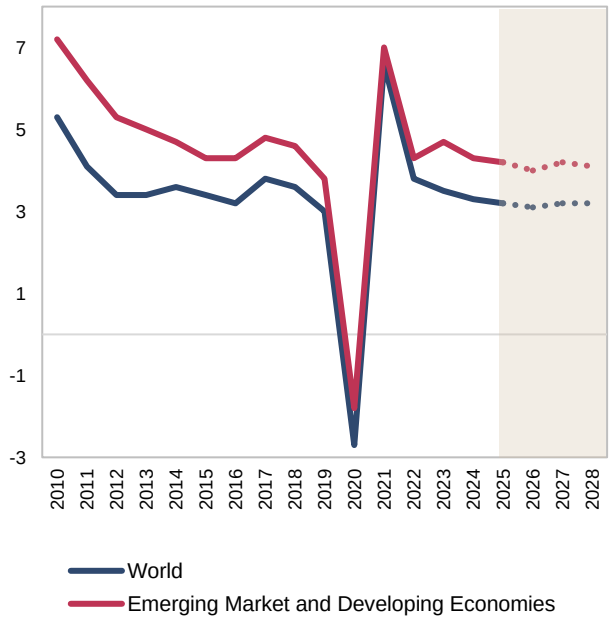
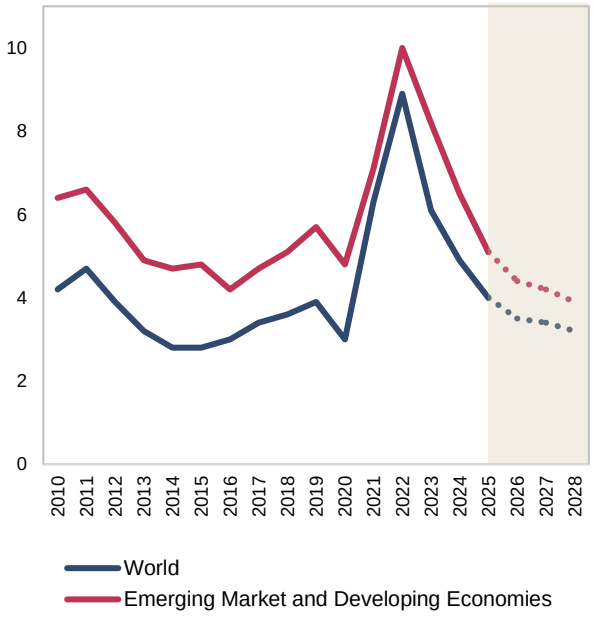


Figure 2.1.2. Global inflation dynamics and forecast, *annual, percent*



Source: IMF, October 2025.

Global inflation is expected to average around 3.4% in 2026–2028, higher than earlier forecasts (Figure 2.1.2).

As inflation declines in advanced economies, the subsequent easing of monetary conditions by major central banks is expected to support greater activity in international financial markets. Although interest rates in international markets are anticipated to gradually decrease, financial fragmentation may limit capital flows to emerging markets.

At the same time, under elevated global uncertainty, part of investment is expected to shift toward gold, increasing the demand for this asset and keeping the gold prices at high levels.

Commodity Prices. Persistent strong demand for gold under the baseline scenario, as well as based on current price dynamics, international consensus forecasts project the price of gold to follow an upward dynamic in the first half of 2026 (averaging around 3800–4000 USD/troy ounce) and to shift to a declining trend starting from 2027 (Figure 2.1.3).

Geopolitical easing and OPEC+ announcements on increasing oil production are expected to keep oil prices relatively low, around 60-70 dollars per barrel.

Although food price inflation accelerated this year due to rising prices of meat and vegetable oil, their prices are expected to grow at a moderate pace in 2026–2028 (Figure 2.1.4).

Figure 2.1.3. Gold price forecast, *annual average, USD per troy ounce*

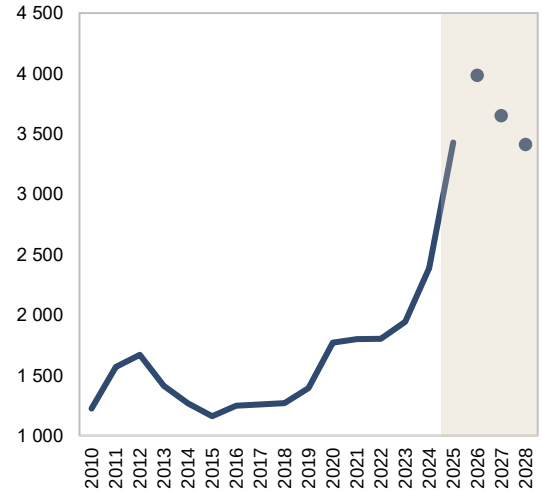
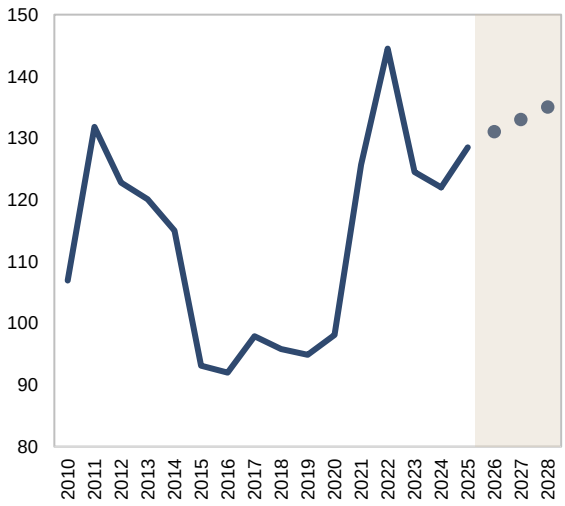


Figure 2.1.4. FAO food price index forecast, *percentage points*



Source: CBU projections based on data from the World Bank and the Food and Agriculture Organization (FAO)

In general, under this scenario, the medium-term global outlook implies that external demand for Uzbekistan's goods (non-gold exports) will remain moderate, while high gold prices will support budget revenues, allowing fiscal stimuli to persist. This, alongside global inflation, may create additional pressure on domestic prices.

Table 2.1.1. Forecasts of Key Global Macroeconomic Indicators for 2026–2028 under the Baseline Scenario

Indicators	Actual		Expected	Forecast		
	2023	2024	2025	2026	2027	2028
Global GDP growth, %	**3,5**	**3,3**	3,2	3,1	3,2	3,2
Global inflation, %	**6,0**	**4,9**	4,0	3,5	3,4	3,2
Gold price, *annual average, ounce/USD*	**1 943**	**2 388**	3 428	3 983	3 500	3 410
FAO food price index, *2014-2016=100*	**124,5**	**122,0**	128,5	129,8	131,5	134,4

Source: IMF, Bloomberg, GPMN.

Economic conditions in major trading partners. The **growth outlook for Uzbekistan's main trading partners** is expected to form in various directions in the coming years.

Despite fiscal stimulus and strong export performance, the medium-term growth in China is expected to follow a slightly declining trend. This is mainly explained by the uncertainties regarding the impact of tariff policy on the Chinese economy.

Russia's economic growth rates are expected to slow down this year due to sluggish labor supply.

Kazakhstan's economy is expected to slow down in the medium term, despite the acceleration of growth in 2025. This is linked to the normalization of consumer activity resulting from tight monetary policy, fiscal consolidation, and expectations about lower oil production volumes.

In Turkiye, growth is expected to slightly accelerate during the monetary easing phase, but remain at relatively low levels *(Table 2.1.1)*.

Inflation in major trading partners is expected to decline over the medium term. In China, inflation remains low but is expected to gradually rise to target levels as domestic demand strengthens. In Russia and Turkey, inflationary pressures are projected to ease under tight monetary policy measures.

In Kazakhstan, despite the recent decline, the inflation rate is expected to remain relatively high due to stable domestic demand and high sensitivity to external shocks.

Table 2.1.2. Forecasts of Key Macroeconomic Indicators of Major Trading Partners under the Baseline Scenario, 2026–2028

Trading Partners	Actual		Expected	Forecast		
	2023	2024	2025	2026	2027	2028
Economic Growth (%)						
China	**5,4**	**5,0**	4,8	4,2	4,2	4,0
Russia	**4,1**	**4,3**	0,6	1,0	1,1	1,1
Kazakhstan	**5,1**	**4,8**	5,9	4,8	4,2	3,0
Turkiye	**5,0**	**3,3**	3,5	3,7	3,7	3,8
Inflation (%)						
China	**-0,2**	**0,0**	0,5	0,8	1,7	1,8
Russia	**7,4**	**9,5**	7,6	4,5	4,0	4,0
Kazakhstan	**9,7**	**8,6**	11,4	9,7	8,6	6,9
Turkiye	**64,8**	**44,4**	31,0	21,0	18,0	15,0

Source: IMF.

According to the baseline scenario, lower oil prices in global markets next year could exert depreciating pressure on the currencies of Russia and Kazakhstan. Exchange rates in other trading partner countries are expected to remain relatively stable.

A sharp fall in gold prices and high volatility in partner countries' exchange rates are identified as major risks to the economy. The resulting changes to the macroeconomic variables and their forecasts under these shocks are analyzed separately in the next section.

The expected exchange rate dynamics in main destinations for labor migrants, strong labor demand in those countries, and ongoing geographic diversification of migration toward advanced economies are projected to support remittance inflows. Remittances are expected to grow by 6–10% in 2026 due to the previous year's high base, and by 8–12% over the medium term.

Current account. Under the baseline scenario, non-gold export growth is expected to be at 8–10% in 2026, and 8–12% in 2027–2028 due to stable economic growth of trading partners, sustained external demand, favorable global price conditions, and relatively low volatility of exchange rates (Figure 2.1.5).

Considering high domestic consumption demand, stable household incomes, and strong investment activity, import growth is projected at around 10–12% in 2026–2028 (Figure 2.1.6).

In the first half of 2025, the current account balance significantly improved (a deficit of -0.2% of GDP). However, due to stronger domestic demand resulting from faster growth in credit disbursements and higher household real incomes in the remaining half of the year, the current account deficit is expected at 3.5–4.5% of GDP at the end of 2025.

Figure 2.1.5. Forecast of Non-Gold Export Growth, *percent*

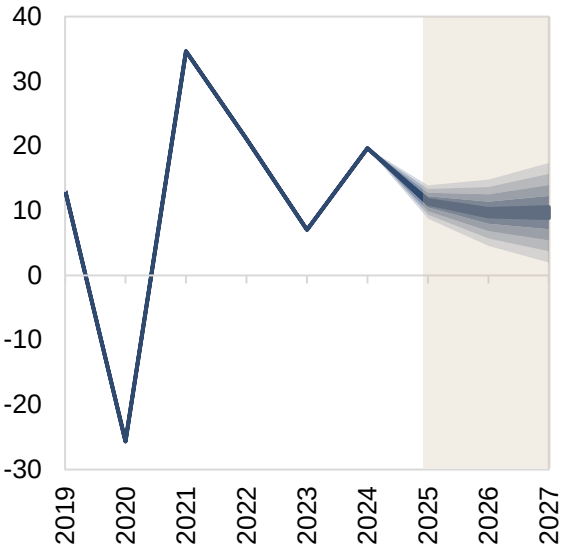
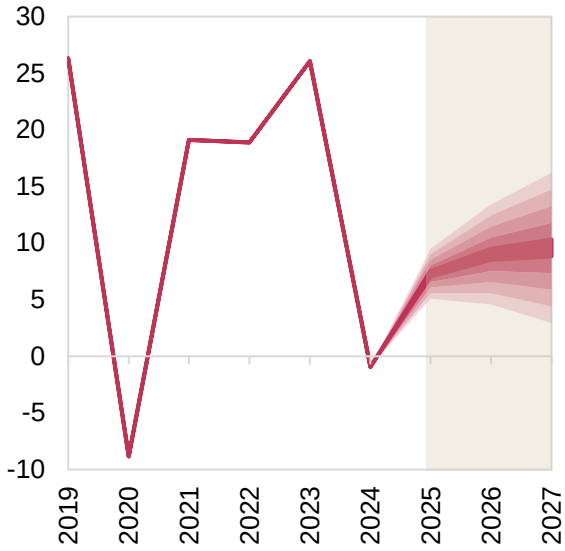


Figure 2.1.6. Forecast of Import Growth, *percent*



Source: CBU calculations.
** 90% confidence interval; dotted line reflects April's forecast.*

In the medium term, the necessity to expand the economy's potential, as well as sustained high levels of foreign direct and other types of investment flows, may lead the current account deficit to form at 4-5 percent of GDP.

Despite the fragmentation processes observed in the global economy, Uzbekistan continues to undertake actions aimed at ensuring regional and international integration.

Uzbekistan is expected to accede to the World Trade Organization (WTO) in 2026. The impact of this process on the economy will materialize gradually, and initially, changes in import tariffs and the expansion of access for domestic goods to foreign markets will have a positive effect on foreign trade conditions.

Accession to the WTO will, on the one hand, help increase export potential, attract investment, and strengthen the competitiveness of the economy. On the other hand, the liberalization of foreign trade and the expansion in the range of imported goods will lead to an increase in import volumes over time and a continued rise in supply in the domestic market.

The growth of imports is expected to be compensated by lower prices for consumer and investment goods, as well as by increasing the efficiency of domestic production through the use of advanced technologies. Overall, current estimates do not envisage significant changes in macroeconomic dynamics. Forecasts will be revised as the effects of WTO accession materialize and updated data become available.

Domestic economic conditions

Economic growth. The high level of economic activity observed since the beginning of 2025 is expected to continue in Q4, with annual **GDP growth** projected to form around **7-7.5 percent**.

This year, the increase in aggregate demand, along with the growth of consumption and investment in both the private and public sectors, is contributing to the acceleration of economic activity.

According to the Central Bank estimates, the **positive output gap** has been widening since the beginning of the year. This indicates that inflationary pressures stemming from the demand side of the economy remain persistent.

Under the baseline scenario, the real GDP growth is projected at **5.5-6.5 percen**t in 2026 and within **6-7 percent** in 2027-2028, against the backdrop of relatively tight monetary conditions and adhering to the fiscal deficit at 3 percent over the medium term.

These projections take into account the continuation of privatization processes, the increase in private investment driven by high economic activity, a steady rise in foreign investment inflows as external financial conditions ease, the optimization of credit allocation to the economy, and the absence of sharp changes in climate and weather conditions (Table 2.1.3).

This year, a stable growth in household incomes, favorable dynamics of remittances, and the expansion of consumer lending have resulted in a faster pace of private consumption growth. By year-end, **household consumption** is expected to reach **7-7.5 percent**.

In the coming years, private consumption growth is projected to be within 5.5-6.5 percent, driven by the stabilization of remittances at their medium-term trend level and the moderation of consumer lending.

Under favorable gold price conditions in global markets, state budget revenues have increased significantly during the year, creating an opportunity to expand budget expenditures.

Although the consolidated budget deficit in 2025 is expected to be within the parameters set at the beginning of the year *(around 3 percent of GDP)*, budget expenditures have increased significantly more than the initial forecast level due to higher-than-expected budget revenues.

Table 2.1.3. Baseline forecasts of macroeconomic development indicators of Uzbekistan for 2025-2028*, *annual change, percent*

Indicators	2024 *(actual)*	2025 *(expected)*	Baseline forecast		
			2026	2027	2028
Inflation rate	9,8	8 *(8,7)*	7 *(7)*	5 *(5)*	5
Real GDP growth	6,5	7-7,5 *(6,5-7)*	5,5-6,5 *(6-6,5)*	6-7 *(6-6,5)*	6-7
Final consumption expenditures	6,4	7-7,5 *(6,5-7)*	6-6,5 *(5,5-6)*	6-7 *(5,5-6)*	5,5-6,5
- households	*7,5*	*7-8* *(6,5-7,5)*	*6-7* *(5-6)*	*5,5-6,5* *(5-6)*	*5,5-6,5*
- general government	*1,1*	*2-3* *(0,5-1,5)*	*2-3* *(1,5-2,5)*	*2-3* *(1,5-2,5)*	*2-3*
Total fiscal balance *(as % of GDP)*	-3,3	-3 *(-3)*	-3 *(-3)*	-3 *(-3)*	-3
Exports (without gold)	16,5	16-20 *(12-15)*	8-10 *(8-10)*	8-12 *(9-11)*	8-12
Imports	0,8	12-16 *(8-10)*	8-12 *(8-10)*	8-12 *(8-10)*	8-12
Remittances	30	16-20 *(15-18)*	6-10 *(8-12)*	8-12 *(10-15)*	8-12
Credit to the economy *(total outstanding loans)*	14	14-16 *(16-18)*	12-14 *(13-15)*	11-13 *(11-13)*	10-12

** Forecasts in parentheses refer to projections from the Monetary Policy Report for Q2 2025.*

Source: CBU calculations.

This, on the one hand, supports domestic economic activity, while on the other, increases aggregate demand in the economy, contributing to the persistence of inflationary pressures.

Against the backdrop of increased budget expenditures, growth rates of **government consumption** are expected to accelerate to **2-3 percent** in 2025. Over the medium term, this indicator is also projected to remain around 2-3 percent.

Investment activity is expected to be high this year *(slightly lower than last year).* In 2025, investment growth will be around 7-10 percent, primarily driven by foreign investments, attracted loan funds, and households' spending on housing construction.

At the same time, with further expansion of production, activation of the construction sector, and development of infrastructure, **investment growth** in 2026-2028 is projected to demonstrate a balanced growth path, at 8-11.

In 2026-2028, under the baseline scenario, consumption activity is expected to stabilize amid the ongoing budget consolidation processes and the maintenance of relatively tight monetary conditions.

Moreover, during this period, sustaining the pace of privatization is expected to support structural reforms and the effectiveness of investments, enhancing economic growth potential and narrowing the output gap.

Total outstanding loans, one of the main financing sources of investment and consumption demand, is expected to grow at around 14-16 percent in 2025, with a gradual moderation to 10-12 percent in 2026-2028.

Inflation rate

The acceleration of lending rates in the economy, stable growth of real incomes of the population, and high budget expenditures this year are stimulating investment and aggregate consumption activity.

At the same time, the subsequent increase in energy tariffs and their persistent secondary effects are among the main reasons defining the current high inflation dynamics. As a result, achieving the 5 percent inflation target is being **postponed until 2027**.

According to the baseline scenario, headline inflation at the end of 2025 is projected to be around **8 percent**. This forecast is lower than previous estimations.

It was expected that the ongoing strong economic activity, along with the supply-side upward pressures on headline inflation since the beginning of this year, would lead to persistent consumption and investment demand. Against this background, due to sustained price pressures in the economy, the previous forecast assumed headline inflation to be 8.7 percent at the end of the year.

However, the stronger-than-expected appreciation of the national currency in 2025 Q3 contributed to the downward revision of forecasts for the end of the year.

In this context, the stabilization of import prices due to the exchange rate helped mitigate the impact of the aforementioned demand factors on inflation. This allowed both headline and core inflation to shift to a declining trend in recent months.

Nonetheless, considering the uncertainties regarding the future level of exchange rate volatility, the impact of this factor is assessed as short-term. This, in turn, necessitates maintaining relatively strict monetary conditions for a longer period due to persisting demand factors, even though inflation has shifted to a declining trend.

Taking these factors into account, core inflation is expected to decrease to **7 percent** at the end of 2025 and to **5.5–6.5 percent** in 2026. With relatively tight monetary conditions, core inflation is projected to fall to **5 percent** in 2027–2028 and stabilize at this level.

Headline inflation is expected to gradually decline, reaching around **7 percent** at the end of 2026. With the reduction of external inflationary pressures and stabilization of inflation expectations, inflation is projected to fall to the **5 percent target in 2027** and remain within the target range from 2028 onwards.

Monetary Policy

In determining monetary conditions in the coming years, primary consideration will be given to the updated forecasts of inflation, its key factors, inflation expectations of households, and the imperative of achieving the 5 percent inflation target.

Baseline scenario	
Inflation rate	Inflation is expected to form around **7 percent** in 2026. In the second half of 2027, inflation will decline to the **5 percent target** and is projected to remain at the target level starting from 2028.
Monetary policy measures	
Monetary conditions	Given the inflationary pressures in the economy, monetary conditions will remain **relatively restrictive** throughout 2025–2026 and will shift to a **neutral phase** once there are sufficient grounds for achieving the inflation target.
Money market interest rates	In 2025-2026, the **UZONIA rate** is projected to remain at **5-6 percent** in real terms, and at around **4-5 percent** starting from 2027.

In the first half of the current year, certain supply-side factors contributed to inflationary pressures, including higher energy prices and their second-round effects. The continuation of these trends into the coming years, along with strong consumer demand, necessitates maintaining relatively restrictive monetary conditions.

At the same time, to ensure that credit demand is at a balanced level in the medium term, monetary conditions will remain relatively restrictive during 2025-2026. The necessary monetary policy and macroprudential measures will be taken to ensure positive real interest rates of **5-6 percent** in the money market.

To enhance the effectiveness of monetary policy, it is important to gradually reduce the practice of directed lending by banks and to develop lending based on market principles. This will allow the transmission mechanism to function fully and strengthen the impact of monetary policy on the economy.

In 2027-2028, as inflation stabilizes around the target level, monetary conditions can gradually move into a neutral phase. As a result, this will allow positive real interest rates of **4-5 percent** to form in the money market.

Ensuring that inflation remains persistently low in the coming years requires addressing the fundamental supply-side drivers of inflation. This primarily calls for strengthening competition in the domestic market, improving trade openness by reducing tariff and non-tariff barriers, lowering

the concentration of imports, ensuring uninterrupted and adequate supply of energy resources aimed at increasing the supply of goods and services, and developing sufficient transport infrastructure capacity.

In addition, accelerating the transformation and privatization of state-owned enterprises, reducing directed and preferential lending practices, and developing the capital market will play an important role in improving the effectiveness of monetary policy decisions.

Successful implementation of these structural reforms will increase the potential and productivity of economic sectors, ensuring low and stable inflation and supporting strong economic growth.

2.2. External and Domestic Potential Shocks in Macroeconomic Development and Monetary Policy

In determining the main guidelines of monetary policy for 2026-2028, a different approach was taken compared to the previous years' alternative scenario of macroeconomic development, where several external and internal risks were studied within a single scenario. Instead, this time, each risk was considered separately.

External and domestic risks are defined as economic shocks not accounted for in the baseline scenario conditions. These economic shocks can be both positive and negative. In the analysis, these shocks were studied from the perspective of their impact on inflation, GDP, and monetary conditions.

Specifically, potential external and domestic risks that may emerge in the coming years were analyzed separately. This involved estimating the deviation of the economic indicators from their baseline forecast level. In case these conditions materialize, corresponding adjustments will be made to the monetary policy, and the primary focus will be on achieving the medium-term target indicator for inflation.

This approach also considered the high level of current uncertainty, the likelihood of these factors occurring, the varying magnitude of their effects, and the low probability of all risks materializing simultaneously. The main emphasis was placed on the complexity of accurately assessing the combined impact of all factors under a single alternative scenario.

The following factors were selected as shocks that could lead to a deviation from the baseline scenario:

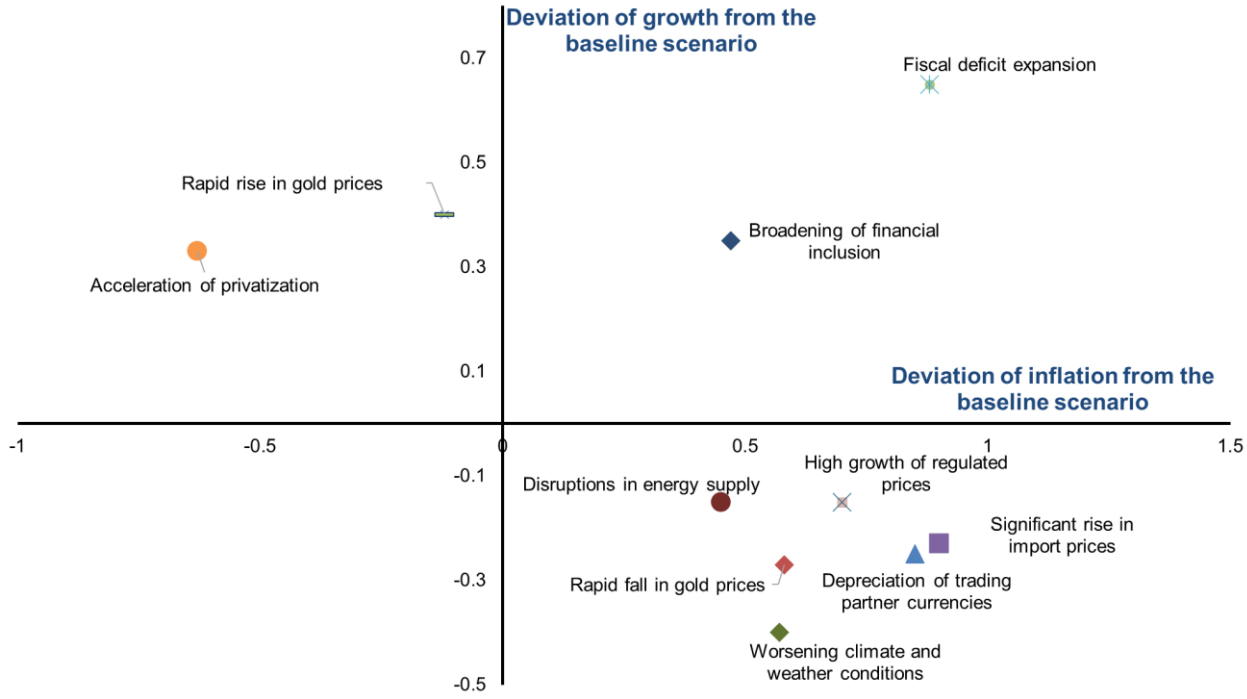
On the demand side:

- Significant depreciation of major trading partners’ currencies,
- Sharp increase (or decrease) in gold prices relative to the baseline scenario,
- Expansion of the fiscal deficit,
- Increased consumer demand due to broader financial inclusion.

On the supply side:

- Significant rise in world prices of imported food products,
- Disruptions in energy supply,
- Worsening climate and weather conditions,
- Changes in privatization processes and competition environment,
- Regulated prices rising higher than the headline inflation level.

Figure 2.2.1. Deviation of inflation and economic growth from the baseline scenario due to potential external and domestic shocks in macroeconomic development, *percent*



Source: CBU calculations

Table 2.2.1. Deviation of inflation and economic growth from the baseline scenario due to potential external and domestic shocks in macroeconomic development, *percentage points*

No.	Potential Shocks	Deviation of inflation from baseline scenario	Deviation of GDP growth from baseline scenario
1.	Depreciation of trading partner currencies	0.7-0.9 ↑	-0.2-(-0.3) ↓
2.	Rapid fall in gold prices	0.5-0.6 ↑	-0.25- (-0.35) ↓
3.	Rapid rise in gold prices	-0.1-(-0.2) ↓	0.3-0.5 ↑
4.	Significant rise in import prices	0.8-1 ↑	-0.15-(-0.25) ↓
5.	Fiscal deficit expansion	0.7-0.9 ↑	0.6-0.7 ↑
6.	Acceleration of privatization	-0.6-(-0.7) ↓	0.3-0.4 ↑
7.	Broadening of financial inclusion	0.4-0.5 ↑	0.3-0.4 ↑
8.	Disruptions in energy supply	0.4-0.5 ↑	-0.1-(-0.2) ↓
9.	Worsening climate and weather conditions	0.5-0.6 ↑	-0.35-(-0.45) ↓
10.	High growth of regulated prices	0.6-0.8 ↑	-0.1-(-0.2) ↓

Source: CBU calculations.

Significant Depreciation of Major Trading Partners' Currencies

In the coming years, there are some risks related to major trading partners' currencies. If these risks materialize, their impact on domestic inflation can be multidirectional.

On one hand, local products become more expensive for partners, reducing export competitiveness and external demand, while also decreasing the value of cross-border remittances in USD, which lowers household incomes and, correspondingly, reduces consumer demand.

On the other hand, reduced export competitiveness and lower remittances can lead to a decline in foreign currency supply in the domestic currency market, resulting in currency depreciation and, in turn, exerting upward pressure on import prices.

Overall, these changes may negatively affect economic growth and, in the short term, represent one of the main factors increasing inflation.

Under this shock, inflation could rise by **0.7-0.9 percentage points** relative to the baseline scenario, while GDP could decrease by **0.2-0.3 percentage points.** The Central Bank would need to maintain monetary conditions at a more restrictive level than the baseline scenario and delay the transition to a monetary easing phase.

Sharp Increase in Gold Prices

In 2025, geopolitical and economic uncertainties, trade disputes, and the weakening of the US dollar led to high investor demand for gold as a safe-haven asset, pushing its price upward. In addition, central banks have significantly increased their gold shares in their reserves to diversify assets.

In the coming years, there is a likelihood that these uncertainties will persist, keeping demand for gold high. At the same time, statements by the US government regarding Federal Reserve interest rate policy have raised concerns about the Fed's independence.

As a result, the gold price could exceed the forecasts in the baseline scenario, potentially reaching USD 5,000–5,500 per troy ounce.

If this shock occurs, the budget revenues from gold production will increase, contributing to a rise in aggregate demand. This supports economic growth but also intensifies inflationary pressures.

At the same time, increased foreign currency supply from gold exports can strengthen the exchange rate and reduce import-driven inflation.

Under this shock, inflation could decrease by **0.1-0.2 percentage points** and the GDP could increase by **0.3-0.5 percentage points** relative to the baseline scenario. The Central Bank would implement monetary conditions consistent with the baseline scenario, facilitating faster achievement of the inflation target.

Sharp Decrease in Gold Prices

In recent years, gold prices have been highly volatile, generally showing an upward trend. Short-term and unstable factors affect gold prices, such as rapid responses to political statements, unexpected news, or fluctuations in other assets.

If geopolitical tensions subside and investment conditions in developing countries improve, gold prices could sharply decline relative to the baseline scenario (to USD 2,500–2,700 per troy ounce). This would reduce budget revenues from gold exports and decrease foreign currency supply in the domestic market, putting upward pressure on the exchange rate and leading to higher import inflation.

Under this shock, inflation could rise by **0.5-0.6 percentage points** relative to the baseline scenario, while GDP could decrease by **0.25-0.35 percentage points**. The Central Bank in this case will need to transition to a monetary easing phase later than the baseline scenario.

Significant increase in world prices of imported food products

In recent years, global food prices have been increasingly affected by climate change. Rising world food prices (especially meat and oil) and trade restrictions imposed by partners could further increase prices. This may accelerate domestic food inflation through the import channel.

Under this shock, inflation could increase by **0.8-1 percentage points** relative to the baseline scenario, and GDP could decrease by **0.15-0.25 percentage points**.

The Central Bank would maintain relatively restrictive monetary conditions compared to the baseline scenario and delay easing.

Since this increase is caused by external (exogenous) factors, it cannot be controlled by reducing demand. Monetary policy tightening in this case serves to prevent excessive consumption of savings and signal the substitution of non-essential goods and services in daily consumption. This prevents supply shocks from transforming into a spiral via inflation expectations.

At the same time, the government will need to take appropriate measures to stabilize the food supply under these circumstances.

Expansion of the Fiscal Deficit

There are also risks of the fiscal deficit expanding as a result of the imbalance between budget expenditures and revenues. A fiscal deficit exceeding 3 percent of GDP will increase aggregate demand in the economy, creating additional inflationary pressure.

If the fiscal deficit reaches around 5% of GDP, inflation could increase by **0.7-0.9 percentage points**, while GDP could rise by **0.6-0.7 percentage points** relative to the baseline scenario.

In case of such an inflationary shock, **aggregate demand** would expand, putting pressure on prices. This inflationary shock leads to a rise in inflation expectations among households and businesses, increasing uncertainty in economic processes.

Should the fiscal deficit form higher than the baseline scenario, **further tightening of monetary policy** may be required.

In this context, the structural direction of fiscal policy is crucial. Even if the fiscal deficit is moderate (around 3% of GDP), increasing expenditures in periods of high growth could create **pro-cyclical** effects, strengthening inflationary pressures and reducing monetary policy effectiveness.

In this situation, it is important to implement fiscal policy in a **counter-cyclical manner, that is, the policy based on budget rules tied to economic activity.** During periods of high activity, expenditures should not exceed the planned levels, and financial discipline should be maintained.

Disruptions in energy supply

Energy supply disruptions may arise from sharp increases in electricity demand, rising global oil prices, and sanctions on foreign suppliers.

Stable energy supply is critical for key sectors of the economy, thus, disruptions represent potential risks. Production halts can slow economic activity, increase transaction costs, and reduce supply, putting upward pressure on prices. At the same time, these issues can reduce production efficiency and limit economic growth rates.

Under this shock, inflation could increase by **0.4-0.5 percentage points**, while GDP could decrease by **0.1-0.2 percentage points**.

The Central Bank will implement monetary policy with caution to maintain economic stability and the inflation target. Meanwhile, monetary policy will be tightened to prevent the acceleration of inflation due to the upward impact of energy supply disruptions on **inflation expectations** and the emergence of secondary effects.

Acceleration of privatization and improvement in investment and competition environment

Acceleration of privatization and enhanced competition relative to the baseline scenario improves private sector efficiency. This increases supply and optimizes price formation, supporting price stability.

At the same time, budget transfers to these sectors decrease, and privatization proceeds will be directed to other important areas. As a result, economic growth potential may exceed the baseline scenario, while the positive output gap will narrow.

Under this shock, inflation could decrease by **0.6-0.7 percentage points**, and GDP could increase by **0.3-0.4 percentage points** relative to the **baseline scenario**.

Successful implementation of these structural changes may shorten the time needed to achieve the inflation target, allowing monetary conditions to move to a neutral phase faster than in the baseline scenario.

Worsening climate and weather conditions

The increased sharp variability in climate and weather conditions in recent years, and risks associated with the stability of the country's water supply, are hurting agriculture and the overall economy. Unexpected drought may reduce agricultural productivity, leading to a decrease in the supply of food products in the domestic market. Abnormal cold or heat waves may cause disruptions in energy supply and a sharp increase in transactional costs in the economy.

This affects not only the living standards of the population but also the formation of inflation expectations. Increasing concerns about food security intensify the environment of uncertainty in the consumer market, which may negatively affect the process of making consumer and investment decisions.

Under this shock, inflation could rise by **0.5-0.6 percentage points**, and GDP could decrease by **0.35-0.45 percentage points** relative to the baseline scenario.

Monetary policy may remain restrictive for a longer period to prevent the impact of supply shocks on inflation expectations. In these situations, ensuring the stability of supply factors is crucial.

Increased consumer demand due to broader financial inclusion

Wider and faster adoption of technology-based services, increased access to online lending, and higher household credit coverage lead to easier access to loans and the acceleration of money circulation. As a result, consumer demand strengthens, putting upward pressure on prices.

Furthermore, the expansion of the coverage of banking services increases the demand for credit.

Under this shock, inflation could rise by **0.4-0.5 percentage points**, and GDP could increase by **0.3-0.4 percentage points** relative to the baseline scenario.

If other factors dominate, the interest rate channel may be less effective in controlling credit growth. In such a case, monetary policy would remain restrictive, complemented by macroprudential measures to ensure price and financial stability.

Regulated prices rising higher than headline inflation

Rapid increases in regulated prices for electricity, natural gas, utilities, transport, and other regulated services above the baseline scenario directly and indirectly increase overall consumer prices.

In particular, higher production costs may lead businesses to revise prices, creating secondary inflationary effects. Inflation expectations among households also tend to rise.

Under an above-inflation rise in regulated prices, inflation could increase by **0.6-0.8 percentage points**, and GDP could decrease by **0.1-0.2 percentage points** relative to the baseline scenario. In this case, monetary policy measures will be tightened to curb inflation expectations and mitigate the secondary effects of rising regulated prices.

Box 3

Amendments to the methodology for calculating the money market benchmark index

In order to improve the formation and publication mechanism of interest rate data in the money market, the Central Bank introduced a new version of the “Methodology for Calculating and Publishing the UZONIA Index (Uzbek Overnight Index Average) of the Interbank Money Market”.

The UZONIA index reflects the benchmark level of short-term resources in the money market. In 2022, the methodology for calculating and publishing the index was developed and implemented by the Central Bank with technical support from the European Bank for Reconstruction and Development (EBRD).

During its initial implementation in 2022, the main transactions in the money market were deposit operations, and therefore these operations were used as the basis for calculating the UZONIA rate.

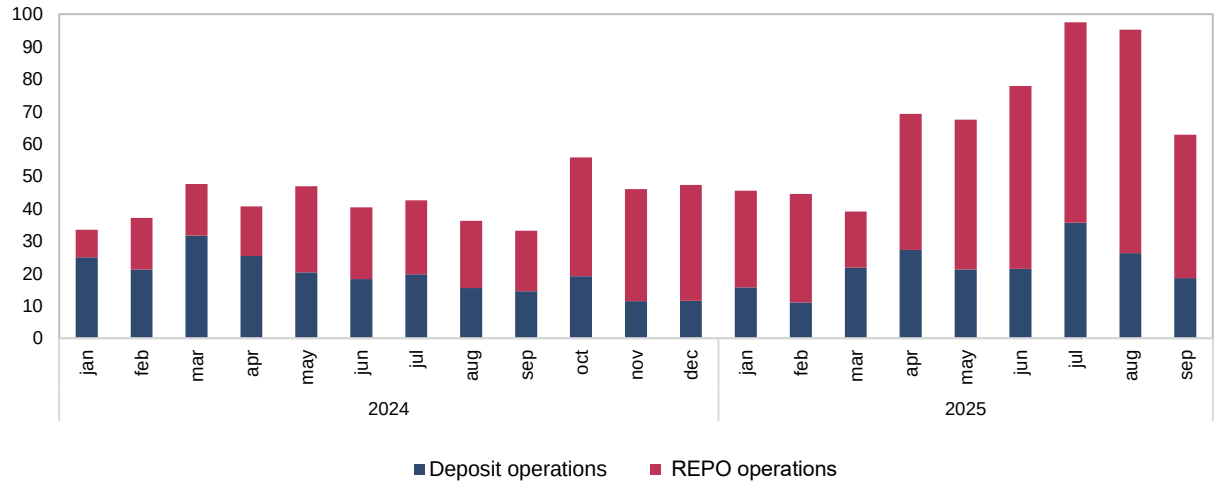
However, in the interbank deposit market, the absence of collateralized liquidity in operations exposes market participants to a certain degree of credit risk. The expansion of the government securities market, combined with the factors mentioned above, led banks to increasingly prefer REPO operations in the money market (Figure 1).

As a result, the share of REPO operations in the money market increased to an average of 53% in 2024 and reached 66% during January-September of the current year.

At the same time, in January-September of the current year, the daily average volume of overnight operations in the deposit market amounted to 0.6 trillion soums, conducted in four transactions, whereas in the REPO market, the corresponding figures were significantly higher at 1.3 trillion soums, carried out in ten transactions.

These structural changes in the money market necessitated their reflection in the calculation of the benchmark UZONIA index.

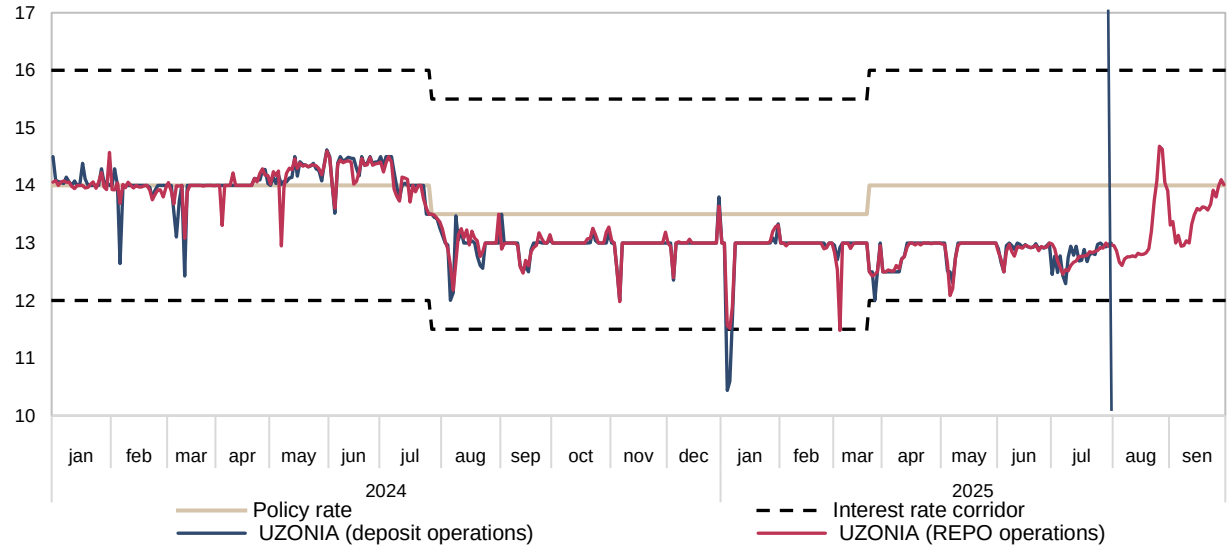
Figure 1. Money market volume, *trln soums*



Source: CBU calculations.

An analysis of UZONIA index based on deposit operations and the one based on REPO operations shows that the latter index follows the policy rate more closely and moves within the interest rate corridor (Figure 2).

Figure 2. UZONIA rates calculated based on deposit and REPO market operations, *percent*



Source: CBU calculations.

Considering the above factors alongside leading international practices and technical support from the EBRD, a new methodology for calculating the UZONIA rate was developed and implemented from August 1 of the current year. Under the updated methodology, overnight operations in the interbank REPO market and their corresponding interest rates are used as the calculation base for UZONIA.

In addition, to calculate the UZONIA rate, it is required that at least five overnight REPO operations be conducted during a banking day, with a total transaction volume of no less than 500 billion soums.

At the same time, procedures were introduced for calculating the UZONIA rate in cases where the number of interbank REPO operations conducted during a banking day does not meet the established minimum requirements.

Specifically, on a banking day when the minimum requirements are not met, the “80% trimmed” composite weight of overnight operations conducted in the interbank money market is included in the calculation base for the UZONIA rate.

If the total volume of interbank REPO and deposit operations included in the calculation base is less than 500 billion soums, 10% of the Central Bank’s overnight deposit operations for that day is added to the calculation base.

If the above sequence of steps has been completed but the volume in the calculation base still below 500 billion soums, then the UZONIA rate is calculated based on the average difference between the UZONIA rates over the past five banking days and the Central Bank’s policy rate.

If the UZONIA rate is calculated according to the above procedure for five consecutive banking days, then starting from the following banking day, the UZONIA rate is set at the level of the Central Bank’s policy rate.

The changes introduced to the UZONIA index not only reflect the actual market trends that have taken shape in recent years but also enhance the effectiveness of the monetary policy transmission mechanism.

In order to further strengthen the effectiveness of the UZONIA rate in the money market, particularly to ensure that it accurately represents actual conditions in the interbank market and properly reflects users' interests, the Central Bank will review this methodology on a regular basis, at least once a year.

Box 4

Evaluation of Inflation Drivers and Dynamics in Uzbekistan Using the Vector Error Correction Model (VECM)

Analyzing the factors that play an important role in shaping inflation dynamics and improving the capacity to forecast inflation holds significant importance for the Central Bank.

In this analysis, a Vector Error Correction Model (VECM) was employed to examine the short- and long-term drivers of inflation and the formation of its dynamics over 2018–2025.

The VECM model used in the study can be expressed as follows:

$$\Delta Y_t = \Pi Y_{t-1} + \sum_{i=1}^{n-1} \Phi_i \Delta Y_{t-i} + C + \upsilon_t$$

where $Y_t = [lnCPI_t\ lnrSale_t\ lnM2_t\ lnEXP_t\ lnNER_t\ lnIMPP_t]$ - is the vector of variables in month t; ΔY_t - is the first difference of the vector of k endogenous variables; Π - is a 6×1 coefficient matrix describing cointegration relationships; ΔY_{t-i} - is the matrix of lagged differences of endogenous variables; Φ_i - is the 6×1 coefficient matrix of lagged differences; *C* - is the vector of constants, *n* - is the number of lags in the VAR representation of the model[5] ва υ_t - is the vector of errors.

The model, which is used to assess inflation (CPI), includes the following variables: real revenues from trade and paid services (rSale) to capture demand factors; broad money supply (M2) and budget expenditures (EXP) to account for monetary and fiscal policy effects; and the nominal exchange rate (NER) and import prices (IMPP) to capture external factors.

The results indicate the presence of a positive **long-term[6]** relationship between inflation and the selected variables (Table 1).

Based on the estimated and normalized coefficients of the cointegration equation, a 1-percent increase in broad money supply raises the inflation rate by 0.15 percent in the long run. Depreciation of the nominal exchange rate (NER) and increases in import prices play a relatively stronger role in inflation formation. In particular, a 1-percent depreciation of the exchange rate increases inflation by 0.36 percent, while a 1-percent increase in import prices raises consumer prices by 0.28 percent.

Additionally, economic activity also plays an important role in shaping inflation. Specifically, a 1-percent increase in revenues from domestic demand (paid services) raises consumer prices by 0.04 percent.

Table 1. Normalized Cointegration (Long-Term) Coefficients

(Standard errors shown in parentheses, variables in logarithmic form)

INFLATION	Revenues from paid services	M2	Budget expenditures	Nominal exchange rate	Import prices	Adj. coeff.
	0.04 * (0.02)	0.15 *** (0.02)	0.02 (0.03)	0.36 *** (0.05)	0.28 *** (0.05)	-0.14 *** (0.03)

*** (**) [*] indicate significance at the 1, 5, and 10 percent levels respectively.

Source: CBU calculations.

[5] The optimal lag order for the baseline model (in VAR form) is n = 3 according to various information criteria (such as LR, FPE, AIC, SC, and HQ). This implies that the optimal lag order in the VECM model is n − 1 = 3 − 1 = 2.

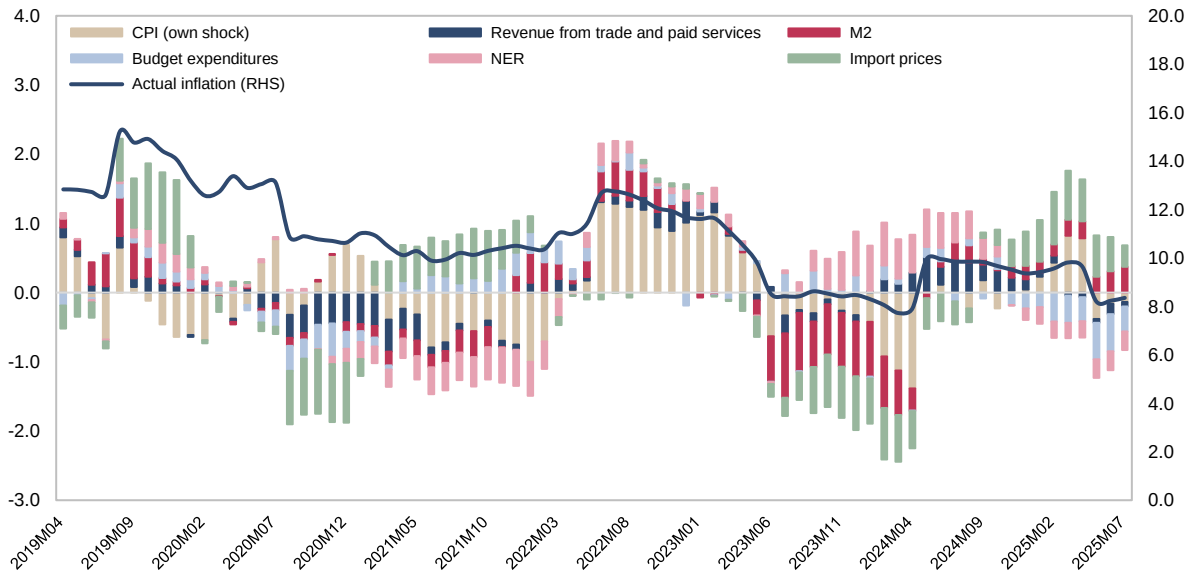
[6] The duration of the long-run adjustment period is two and a half years.

In the main model results, all variables except budget expenditures are statistically significant.

Short-term interactions between inflation and various variables are examined using impulse responses. According to the main model results, in the short run, increases in revenues, broad money supply (M2), import prices, and exchange rate depreciation lead to a noticeable intensification of inflationary pressures. The inflation-raising effect of shocks from government expenditures forms at a relatively lower level.

The historical decomposition of inflation responses to domestic (revenues, M2, and budget expenditures) and external shocks (exchange rate and import prices) shows that before 2023, prices were highly sensitive to both domestic and external shocks. In particular, external shocks played an important role in shaping inflation in 2019-2020, while the impact of domestic shocks increased notably during 2021-2023 (especially in Q2-Q3 of 2022 and 2023).

Figure 1. Decomposition of Inflation Dynamics by Various Shocks, *annual, percent*



Source: CBU calculations

Since 2025, the role of external shocks in inflation formation has increased again. In particular, exchange rate appreciation in recent quarters had a dampening effect on inflation, while the import price index acted as an upward factor (Figure 1).

To assess the model's forecasting capacity, inflation was forecast using the VECM model through dynamic simulation.

Overall, the forecasted and actual inflation trends exhibit a relatively similar pattern. Short-term (3-month) forecast results are especially close to actual inflation (Figure 2). However, as the forecast horizon lengthens (6 months to 1 year), errors between forecasted and actual inflation increase, even though the general trend remains aligned. Therefore, it is advisable to use this model mainly for short-term forecasting and to continue improving its long-term forecasting capability.

Based on the model's high short-term forecasting performance, forecasts for the next three months (October–December 2025) were generated. The results indicate that by December, annual inflation will **reach 8.0 percent** (Figure 3).

Figure 2. Out-of-sample Forecasting Capacity of the Main Model, *annual, percent*

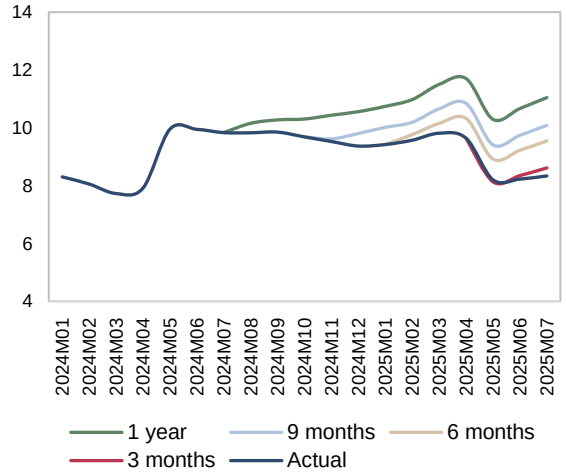
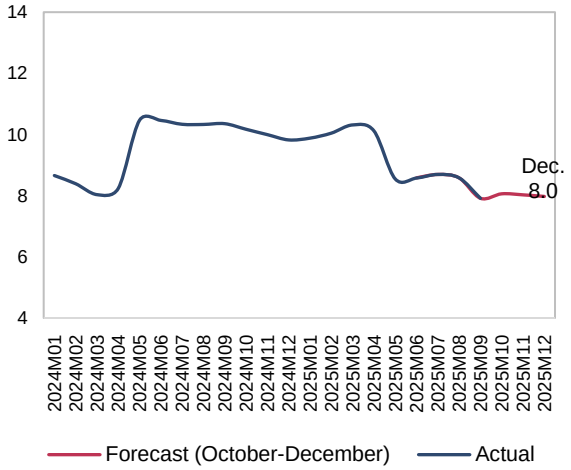


Figure 3. Forecast for October–December 2025, *annual, percent*



Source: CBU calculations

Box 5

Effects of supply-side factors on inflation

Uzbekistan has been actively implementing a series of reforms aimed at transitioning to market mechanisms and improving the efficiency of economic processes. Achieving the medium-term objectives of macroeconomic stability – including low and stable inflation – largely depends on the pace and effectiveness of these reforms.

The impact of structural reforms typically becomes evident over the medium and long term, while in the short term they may generate both direct and indirect effects on inflation. Under such circumstances, tightening the stance and conditions of monetary policy becomes necessary to mitigate the potential upward pressure on inflation expectations.

At the same time, ensuring price stability requires further liberalization of the economy, which includes easing excessive regulatory requirements and pursuing policies that support the sustained growth of aggregate supply.

Delays or postponements in decisions in this area may lead to elevated price increases in certain segments of the consumer market, the emergence of secondary inflationary pressures, a reduction in the effectiveness of monetary conditions, and the need to maintain a tight policy stance for a more prolonged period.

Ensuring sustainably low inflation requires implementing a range of fundamental structural reforms. In particular, it is important to reduce the state's share in the economy and strengthen competition by accelerating privatization processes; decrease market concentration by easing entry conditions in domestic markets; improve and expand transport and logistics infrastructure; ensure the supply of energy resources in line with demand; and provide public awareness about future increases in regulated tariffs.

Accelerating the privatization process. Consistently implementing this reform improves the efficiency of enterprise operations, optimizes production processes, and reduces supply costs, thereby improving the competitive environment and creating conditions for enhancing the role and significance of the private sector in the economy.

At the same time, the effectiveness of the privatization process largely depends on the quality of institutions, the mechanisms for implementing the reform, and the prevailing macroeconomic conditions. In this context, the effectiveness of privatization largely depends on meeting key criteria, including procedural transparency, a sufficient level of competition, and the credibility and sectoral expertise of investors.

Increasing the level of competition and reducing market concentration in specific sectors play a key role in ensuring stable prices and mitigating inflationary pressures.

In conditions of low competition, enterprises have significant pricing power and often pass high markups beyond costs onto the final consumer. This leads to price increases and rising inflationary pressures. Establishing strong competition helps mitigate these risks.

In particular, companies actively implement measures to improve efficiency, redistribute a portion of profits, or optimize costs in order to maintain their market share. This helps reduce the sensitivity of prices to external and domestic shocks. As a result, the economy's adaptability and the stability of price dynamics are strengthened, while the impact of temporary factors on inflation is limited.

Moreover, the expansion of competition contributes to enhancing the effectiveness of the monetary policy transmission mechanism, increasing the sensitivity of businesses to changes in financing conditions and interest expenses.

Improving and enhancing the capacity of transport and logistics infrastructure. This increases economic mobility and boosts overall productivity by enabling faster and more efficient allocation of resources.

Reductions in transport and logistics costs lower the production costs of goods and services, thereby alleviating price pressures. The development of infrastructure strengthens the interconnectedness of regional markets, facilitates quicker price adjustments across regions, and reduces imbalances arising from delivery constraints.

Efficient logistics expand the opportunities for producers and trade networks to diversify their suppliers, creating conditions that strengthen competition. Developed infrastructure enhances the economy's resilience to external and domestic shocks, in particular by easing disruptions in supply and dampening price volatility in global markets.

In the long term, improving transport and logistics infrastructure provides the necessary conditions to increase production capacity, expand supply, and allocate resources more efficiently, thereby contributing to a reduction in structural inflationary pressures.

Ensuring the supply of energy resources in line with demand. Energy resources play a critical role in the production processes and cost structures of most sectors. Shortages in the supply of electricity, gas, or fuel lead to higher production costs, reduced output, and disruptions in production chains, which in turn exert broad-based inflationary pressures on the economy. In particular, increases in energy-related costs significantly affect transport expenses as well as the production costs of food and everyday consumer goods.

In sectors with continuous production cycles, energy shortages lead to sharp increases in transactional costs, such as the loss of raw materials and semi-finished products, and higher expenses for restarting equipment.

These factors, in turn, directly affect consumer prices and inflation expectations. Additionally, they increase uncertainty for businesses and reduce the efficiency of production capacity utilization.

Announcing regulated tariff increases in advance. To reduce uncertainty for households and businesses in decision-making, schedules for the indexation of regulated tariffs for utilities and public transport over the medium term (next 3-5 years) should be announced in advance. This allows economic agents to plan their finances more effectively and helps shape relatively well-anchored expectations.

In this case, implementing tariff increases at a rate below inflation, simultaneously across all regions, during a specific month, and continuing annually according to the established schedule helps prevent potential negative effects of indexation on expectations.

III. PRIORITY AREAS FOR ENHANCING THE EFFECTIVENESS OF MONETARY POLICY

3.1. Prospects for enhancing the effectiveness of monetary policy transmission

Monetary policy transmission refers to the process through which the Central Bank's decisions affect the real sector of the economy and, ultimately, the price level through various channels. In this process, the Bank's monetary policy decisions influence credit activity, the value of financial assets, and household saving and consumption decisions via transmission channels such as the **interest rate channel**, **the credit channel, the financial asset channel**, **the expectations channel**, and the **exchange rate channel**.

The effectiveness of transmission depends on the impact of the Central Bank's monetary policy instruments, the development level of the country's financial market, the competitive environment in the credit and deposit markets, and the extent of government intervention.

In the medium term, the Central Bank will take measures to enhance the effectiveness of monetary policy transmission by improving monetary policy instruments and aligning the operational framework with advanced international practices. Particular attention will be given to **strengthening the mechanisms of monetary policy transmission**, especially the effectiveness of the interest rate channel. The measures to be implemented will cover several key areas.

Securitization of the main liquidity absorption operations. When the banking system has excess liquidity, the Central Bank manages interest rates in the money market by effectively absorbing additional liquidity. To enhance the effectiveness of monetary policy and securitize the Central Bank's main liquidity absorption operations (backed by debt securities), a temporary adjustment was made to the operational framework of monetary policy. Starting from 1 August 2025, the Central Bank began issuing 7-day bonds as the main instrument for liquidity absorption, replacing the previous 1-week deposit auctions.

This adjustment to the operational framework directly affects the formation of interest rates in the money market, ensuring that they remain within the Central Bank's interest rate corridor and close to the policy rate.

However, **the very short maturity** of these bonds, **low demand for them in the secondary market**, and, under the current regulatory framework, **the limited ability to conduct REPO transactions with short-term securities** reduce banks' capacity to fully utilize this instrument.

To increase the attractiveness of the main liquidity absorption operations and ensure that money market interest rates remain close to the policy rate, the Central Bank plans to issue **special bonds with maturities of up to one year** starting next year, keeping them on its balance sheet instead of placing them with commercial banks. These bonds will also be used to conduct **fixed-rate REPO operations that fully cover the main operations.**

The advantage of this mechanism over the current instruments lies in the ability to **sell the pledged** Central Bank bonds or raise funds through the **secondary REPO market** whenever a commercial bank requires liquidity during the one-week period. In this case, fully covered fixed-rate REPO operations can be conducted **in unlimited amounts at the policy rate**.

The procedures for issuing these special bonds and the accounting rules for them will be developed in accordance with international standards.

The securitization of main operations improves monetary policy transmission by effectively achieving the operational objective of monetary policy. In this context, when the banking system has a structural liquidity surplus, the instrument contributes to the expansion of the collateral base for commercial banks and increases the amount of secured transactions in the interbank money market.

Expanding the use of financial instruments with floating interest rates linked to a benchmark rate. In international practice, active use of floating-rate financial instruments linked to a benchmark rate plays a key role in enhancing the effectiveness of the monetary policy transmission mechanism. Such instruments allow monetary policy decisions to be transmitted to the financial system and, ultimately, to the real sector more quickly and accurately. Changes in interest payments on bank products directly tied to the benchmark rate serve as a key factor for market participants in making financial decisions.

In the context of Uzbekistan, the wider use of bank products with floating interest rates linked to UZONIA **strengthens the transmission of monetary policy** through the interest rate channel.

Changes in the policy rate influence money market interest rates, aligning the cost of financial resources for banks with market conditions and **reinforcing the credit channel**. Direct effects of interest rate changes on borrowers and investors **accelerate the expectations channel** and ensure that their formation reflects real economic conditions. Market-determined interest rates, in turn, enhance the adaptability of the financial system and support the **redistribution** of risks between lenders and borrowers.

At the same time, the widespread use of such instruments may give rise to new risks in the economy. Extreme fluctuations in interest rates can negatively affect borrowers' expectations and capacity to pay, potentially increasing credit risk within the banking sector. Therefore, instruments linked to the benchmark rate are regarded not only as a tool to accelerate monetary policy transmission but also as a mechanism requiring careful risk management.

In order to create opportunities for managing interest rate risks on financial instruments denominated in the national currency within the banking system, **the development of an interest rate swap market** is considered an important medium-term priority. *This involves:*

*- enhancing banks' **knowledge and skills** regarding interest rate risks and their management;*

*- developing a **methodology** for conducting interest rate swap operations;*

*- establishing a dedicated page on the interbank money market platform of the currency exchange, enabling commercial banks to enter daily indicative quotes for **overnight index swap operations linked to UZONIA in the national currency**.*

In cooperation with the European Bank for Reconstruction and Development, the Central Bank, within the **"Money Market Working Group,"** regularly holds training seminars for commercial banks on the introduction and settlement of variable-rate financial instruments linked to the benchmark rate. These seminars also cover methods for managing the interest rate risks that may arise from these instruments.

Developing a Collateral mechanism for the Central Bank's liquidity provision operations. The development of financial markets and instruments, along with the growth in the volume and variety of interbank money market operations, requires further refinement of the collateral mechanism to improve the effectiveness of the Central Bank's liquidity provision operations.

In the operational mechanism of monetary policy, the collateral policy performs the following functions:

- ***reducing credit risk*** *in the central bank's liquidity provision operations, i.e., ensuring the repayment of the liquidity provided;*

- ***providing a signal to market participants about reliable collateral instruments in liquidity redistribution operations****. In this context, assets accepted as collateral by the Central Bank serve as a benchmark for market participants, indicating eligible, liquid, and safe assets;*

- ***influencing the pricing process of money market operations****. The type of assets accepted as collateral, their valuation method, and the applied haircuts play a key role in the formation of market rates.*

The collateral that can be used in the Central Bank's liquidity provision instruments and **the haircuts applied to it** are being reviewed from the perspective of **risk management** in monetary policy operations. The Central Bank's collateral framework is being developed with technical assistance from international financial institutions.

Development of the collateral framework is guided by the level of market infrastructure and the complexity of financial instruments and is based on the following principles:

Diversification and flexibility: the range of assets accepted as collateral is gradually expanded. Alongside government securities, highly liquid financial assets that meet the criteria set by the Central Bank are also included in the collateral base.

Risk-based approach: the haircut for each type of asset is determined based on its liquidity, price volatility, and credit rating.

Automated valuation system: a modern automated information system is introduced to monitor and revalue collateral in real time. This approach not only simplifies operational processes but also enables effective quality control of collateral and reduces the risk associated with liquidity operations.

The improvement of the collateral mechanism ensures that liquidity provision operations are conducted in a more precise, transparent, and market-oriented manner. This mechanism contributes to the formation of interest rates in line with market conditions, enables liquidity operations to respond more quickly to market signals, and supports the enhancement of monetary policy transmission.

Development of a revised intervention strategy and tactics for the Central Bank's foreign exchange operations. To improve the market mechanisms for the formation of the national currency exchange rate, further develop the domestic foreign exchange market, and enhance the role of commercial banks in exchange rate formation, the Central Bank plans to refine its foreign exchange intervention strategy.

Under this strategy, operations related to monetary gold purchases and other central bank interventions are fully separated in accordance with the principle of neutrality. Interventions are conducted based on a risk management model that takes exchange rate fluctuations into account.

The revised intervention tactics and strategy define the main principles, objectives, functions, and forms of central bank interventions in the domestic foreign exchange market.

Additionally, the strategy aims to increase the activity of commercial banks in exchange rate formation and strengthen their role as market makers.

Enhancement of hedging instruments and establishment of a local hedge fund with participation of foreign experts. To further develop the domestic foreign exchange market and mitigate the impact of exchange rate fluctuations and external shocks on enterprises' financial positions, as well as to hedge currency risks, new derivative instruments will be introduced. At the same time, the existing regulatory and legal framework will undergo a comprehensive legal review and alignment with international standards.

This initiative will create favorable conditions for business entities engaged in foreign trade to manage exchange rate volatility, external shocks, and currency risks effectively.

Additionally, to ensure continuous liquidity in the hedging instruments market and prevent concentration of hedging-related risks, a local hedge fund will be established with participation of foreign experts and market participants.

Furthermore, market-maker programs for hedging instruments will be developed in the domestic foreign exchange market, creating favorable conditions to enhance the role of the local hedge fund and commercial banks as market makers.

Development of a risk management system for the Central Bank's foreign exchange and money market operations. To organize the Central Bank's risk management system for foreign exchange and money market operations based on advanced international practices, cooperation has been established between the Central Bank and the International Operations Risk Working Group (IORWG).

Within the framework of this cooperation, activities will be carried out to identify and assess risks in the foreign exchange and money markets, as well as to develop a consolidated risk register. Based on the recommendations of the working group, a comprehensive risk management system will be designed.

In addition, measures will be implemented within the operational framework of the Central Bank's monetary policy to reduce credit risk related to operations, ensuring the return of liquidity provided.

3.2. Directions for the development of macroeconomic analysis and forecasting capacity

Active and comprehensive reforms in the country, the acceleration of digitalization, global trends in artificial intelligence, high uncertainty and risks in the world economy, and a rapidly changing macroeconomic environment require the Central Bank to produce high-quality and timely analyses and forecasts for effective monetary policy implementation.

At present, all the key elements of the Forecasting and Policy Analysis System (FPAS) have been fully introduced at the Central Bank. The main model of the Central Bank is the Quarterly Projection Model (QPM). Moreover, there are a number of satellite models designed for more in-depth analysis and forecasting of some indicators.

In particular, the ARIMA and BVAR models are applied to forecast inflation. For GDP projections, there are macroeconomic models based on FPP, DFM, FAVAR and MIDAS.

Improving the short and near-term forecasting system

In 2025-2026, the Central Bank is receiving technical assistance from the IMF to improve the current and short-term forecasting system. Under this technical support, a system for forecasting macroeconomic indicators in the short and current term is being developed using a large Bayesian vector autoregression (LBVAR) model.

The advantage of the LBVAR model over traditional vector autoregression models lies in its ability to utilize large volumes of data for macroeconomic forecasting.

With the publication of high-frequency data, the forecast results are updated in real time. In addition, the marginal impact of each published indicator on the main forecast variables is also assessed.

This year, in the initial phase of the IMF technical support, the LBVAR model was launched on a test run. Nearly 50 domestic and external macroeconomic indicators were used, including economic activity, balance of payments, commodity prices, domestic and partner countries' inflation, exchange rates, monetary indicators, interest rates, producer price index, as well as fiscal revenues and expenditures.

Work on upgrading the LBVAR model will be fully completed next year and put into operational use. In addition, as higher-frequency data are released, forecasts will be updated and brief analytical notes (Data Commentary) will be prepared to summarize and explain forecast revisions.

As part of expanding the set of short-term inflation forecasts, the use of machine-learning methods is planned. This approach is expected to improve the accuracy of short-term inflation projections, reduce forecast errors, and identify non-linear relationships among variables. To this end, machine-learning algorithms will be adapted to the national macroeconomic database.

At the same time, it is planned to introduce gradient boosting models alongside the existing BVAR and ARIMA models, enabling price dynamics to be adjusted more rapidly to short-term demand and supply shocks.

In addition, the probability density forecast approach will be implemented in the inflation forecasting framework. This method allows future inflation to be assessed not as a single point estimate, but in the form of a probability distribution. During implementation, Bayesian-based models will be used to generate probability distributions for each forecast horizon.

Given the need for a comprehensive assessment of economic conditions, the forecasting process will gradually incorporate and operationalize a system of satellite models. In particular, it is planned to develop forecasting models for the main components of the current account (exports, imports, and remittances), apply models that assess the impact of fiscal policy on macroeconomic indicators, as well as regularly calculate fiscal stance and fiscal impulse measures and estimate fiscal multipliers.

Additionally, it is planned to expand the scope of short-term, supply-side GDP forecasting models, taking into account the interlinkages across sectors of the economy.

It is planned to expand the set of econometric and structural models used for analyzing the dynamics of other macroeconomic indicators that are important for monetary policy decision-making.

Within the framework of this process, the development of a number of econometric models with high forecast accuracy potential is envisaged. These include the expanded Vector Autoregression (VAR) model with time-varying parameters, the Vector Error Correction (VEC) model, local projection, and models based on Bayesian methods.

It is planned to introduce an integrated forecasting platform that combines forecasts generated by different models into a single system, allowing the formation of the most optimal forecast result on their basis. This system is expected to ensure consistency among all models within the FPAS (Forecasting and Policy Analysis System**)** framework and significantly increase the accuracy of forecast results in the decision-making process.

Refining the Medium- and Long-Term Forecasting System

To ensure that the FPAS system fully reflects the economy's structure and conditions, the parameters of the models within this system need to be regularly updated. Taking this into account, work began in 2025 with the technical assistance of the IMF to fully review the parameters of the QPM (Quarterly Projection Model) and readjust them to the changing macroeconomic conditions and the structural composition of the economy. This work is planned to continue in the coming years.

Work was carried out in 2025 to improve the Dynamic Stochastic General Equilibrium (DSGE) model developed for the economy of Uzbekistan and to expand the use of the model. The development and implementation of a quarterly DSGE model are envisioned for the coming years. Special attention will be paid to increasing the experience and skills of the model operators to expand the use of this model.

Strengthening Research and Analysis

Opportunities for analyzing textual information obtained from sources such as news, articles, and social networks, based on machine learning models, are also being studied. This will help to assess market sentiment and more broadly analyze its potential impact on the economy.

Sentiment analysis will allow for the assessment of the market’s reaction to decisions and provide a deeper understanding of market expectations during the decision-making process.

At the same time, the introduction of Phillips curve-based models is envisioned to assess the impact of labor market indicators, such as employment and wage dynamics, on inflation. The Central Bank aims to increase the accuracy of forecasts and ensure the high effectiveness of monetary policy analysis by adapting these advanced international practices to the national economic conditions in the future.

Furthermore, in order to improve labor-market analysis, steps will be taken to enhance data quality and automated information collection capabilities, as well as to analyze labor-market trends more deeply through the estimation of Non-Accelerating Inflation Rate of Unemployment (NAIRU).

To strengthen in-depth and comprehensive analysis of the real estate market, plans include updating scripts for collecting data from open web resources and improving processes for collecting data on non-residential properties.

It should be noted that one of the important directions for strengthening forecasting and analytical capacity is conducting fundamental scientific research in the field of monetary policy. In this regard, further expansion of activities in this direction is planned.

In the near future, research is planned to develop and regularly update the methodology for determining, calculating, and assessing the neutral level of dollarization in the economy, developing a methodology for calculating and assessing the neutral level of the real interest rate, and regularly assessing other unobservable variables in the economy (output gap, equilibrium real exchange rate, etc.).

IV. TRANSPARENCY AND MONETARY POLICY COMMUNICATION

4.1. Objectives and main principles of monetary policy

Article 151 of the Constitution of the Republic of Uzbekistan establishes the independence of the Central Bank of Uzbekistan in the formulation and implementation of monetary policy.

In accordance with the Law “On the Central Bank of the Republic of Uzbekistan,” the Central Bank develops and conducts monetary policy with the primary objective of ensuring price stability. **Price stability is understood as maintaining a low and stable rate of inflation.**

The Central Bank has set a permanent inflation objective (target) of 5 percent and employs all instruments at its disposal, taking necessary measures to achieve this goal.

Ensuring the inflation target by the Central Bank helps preserve the purchasing power of households’ and businesses’ incomes and savings, enables them to plan long-term expenditures, and creates favorable conditions for stable and inclusive economic growth.

At the same time, persistently low inflation supports the inflow of stable investment into the country, contributes to a decline in interest rates through a reduction in the inflation risk premium, and lowers the economy’s vulnerability to external shocks amid strengthened confidence in the national currency.

Since 2020, the Central Bank of the Republic of Uzbekistan has been conducting monetary policy within the inflation-targeting framework based on the following principles:

An inflation target has been established, and all monetary policy measures are directed toward achieving it. In Uzbekistan, the medium-term inflation target is set at 5 percent. The target has been publicly announced to ensure that households, business entities, and financial market participants can take it into account when planning their activities and making decisions.

The target defines the targeted annual rate of change in consumer prices, that is, the overall change in the prices of goods and services purchased by households over a 12-month period.

In the operations of the Central Bank, achieving the inflation target is prioritized over other objectives, and all measures and decisions in the monetary policy framework are directed toward achieving this target.

Achieving the inflation target serves as the primary benchmark for economic agents to assess the Central Bank's performance and to form confidence in the conducted monetary policy. From this perspective, all decisions made in the macroeconomic sphere should be aligned with the inflation target.

The Central Bank's policy rate is considered the main instrument of monetary policy. It establishes the monetary conditions necessary to ensure that inflation evolves in line with the 5 percent target. Through the policy rate, the Central Bank influences interest rate dynamics in the economy and, consequently, domestic demand. By balancing domestic demand, the inflation target is achieved.

Meetings of the Central Bank's Board to review the policy rate are held eight times a year according to a pre-announced schedule.

The operational framework of monetary policy is independently developed and continuously refined by the Central Bank. In pursuing the inflation target, the Central Bank independently selects the instruments and approaches of monetary policy.

In this context, the Bank may manage interest rates, conduct open market operations, adjust reserve requirements, and undertake other measures as warranted by economic conditions. The operational mechanism of the implemented monetary policy functions on the basis of the policy rate and the interest rate corridor.

The operational objective of monetary policy is to ensure that short-term (overnight) interest rates in the money market are aligned closely with the policy rate. By actively using monetary policy instruments, the Central Bank manages the overall liquidity of the banking system and, in doing so, influences money market interest rates.

Decisions on monetary policy are based on comprehensive macroeconomic analysis and forecasts. Monetary policy affects price dynamics over time through a chain of various relationships. Therefore, when making decisions on the policy rate, the Central Bank's Board relies on macroeconomic analysis and forecasts to assess their impact on inflation and the economy.

Currently, the Central Bank primarily uses the Quarterly Projection Model (QPM) in the development of macroeconomic forecasts. In addition, a number of econometric and structural models are employed to compare forecast results and conduct research.

It should be noted that decisions on the policy rate are made under conditions of a certain degree of uncertainty. This is because macroeconomic forecasts are formed based on probable development scenarios, expected changes in global commodity and financial markets, and other factors.

For this reason, the Central Bank takes into account relatively stable trends of these factors and their impact on the inflation rate when making monetary policy decisions. The Central Bank continuously enhances its analytical and forecasting capabilities, considering both domestic and global economic developments and uncertainties.

The Central Bank conducts its exchange rate policy under a freely floating exchange rate regime. A freely floating exchange rate is considered a necessary condition for the effective implementation of monetary policy within the framework of inflation targeting. The Central Bank's participation in the domestic foreign exchange market is based on the principle of neutrality. In other words, interventions are conducted within the volume of gold purchased during the year and do not influence the fundamental trend of the exchange rate.

The exchange rate of the soum is determined by the balance of supply and demand for foreign currency in the domestic market. The Central Bank does not set any specific target for the soum exchange rate. The freely floating exchange rate, formed based on market supply and demand, functions as a "*shock absorber,*" limiting the transmission of external shocks to the domestic economy and serving as an important condition for maintaining macroeconomic stability.

Monetary policy is conducted transparently, and every decision is explained in detail to the general public. One of the main elements of the inflation targeting regime is the openness and transparency of monetary policy decisions.

Timely and clear communication of the monetary policy decisions to the general public is important in the formation of inflation expectations of households and business entities.

Ensuring a stable level of inflation within the target and increasing communication transparency will help to increase the credibility of the Central Bank among the population and, ultimately, improve the effectiveness of the implemented monetary policy measures.

4.2. Monetary policy communication

Under the inflation-targeting framework, monetary policy communication is considered one of the main instruments of the Central Bank. Through effective communication, the Central Bank strives to ensure that the inflation expectations of households, businesses, and financial market participants are aligned closely with the actual inflation rate, thereby influencing these expectations.

By implementing an effective communication policy, the Central Bank enhances transparency of its operations, builds confidence in monetary policy, increases accountability, and improves the transmission of monetary policy measures.

At present, the Central Bank of the Republic of Uzbekistan communicates the implemented and planned monetary policy decisions to the general public through press releases, analytical reports, monetary policy guidelines, infographics, and other publications, as well as through regular press briefings and media interactions.

In particular, monetary policy guidelines for the upcoming years, monetary policy reports, money market and liquidity reviews, consumer sentiment reports, business sentiment reports, real estate market analyses, labor market reports, and infographics on inflation expectations and perceived inflation, along with analytical and research materials, are regularly published through the Central Bank's communication channels.

Many countries that have successfully adopted the inflation-targeting framework conduct monetary policy communication primarily using a forward-looking approach, which aims to guide and manage households' and businesses' expectations of future inflation. The Central Bank is also improving the scope of available information in its publications, providing macroeconomic forecasts and details on monetary policy responses to those projections.

In addition, the Central Bank continuously works to improve monetary policy communication with both professional market participants and the general public.

In particular, the scope and quality of information published by the Central Bank have been enhanced, and efforts to expand the coverage of the target audience are being further strengthened.

Notably, this year, a practice of holding regular roundtable discussions and meetings with the media, bloggers, professional financial market participants, and other target groups on a variety of topics of interest has been established, which will be further refined going forward.

At the same time, direct collaborative links have been established with higher education institutions in the field of economics to conduct joint research, monetary policy and economic analysis studies, and other research activities.

Specifically, lectures, seminars, and open discussions on the Central Bank's policies under the inflation-targeting framework are currently being organized at universities and other educational institutions. These events contribute to enhancing young specialists' knowledge of ongoing reforms in the field of monetary policy.

In turn, these initiatives improve the transparency of monetary policy, enabling market participants and the general public to better understand and take into account monetary policy decisions when making their own decisions.

In addition, the use of clear and easily understandable language in the various publications issued by the Central Bank, aimed at the general public, business representatives, and other market participants, is considered one of the key principles for conducting an effective monetary policy communication strategy.

In international practice, the Flesch Readability Index[7] is widely used to assess the clarity of publications, and it is calculated as follows:

$$\boldsymbol{Flesch\ Readability\ Index\ (FRI)} = 206.835 - (1.015 \times ASL) - (84.6 \times ASW) \quad (1)$$

where *ASL* represents the average number of words in a sentence, and *ASW* represents the average number of syllables per word.

Based on the index, the Central Bank assesses the readability of its publications, including the "Monetary Policy Guidelines", "Monetary Policy Report", and other monetary policy-related materials, for different target groups (Table 1).

[7] **The Flesch Readability Index** is used to evaluate how easy or difficult a given text is to understand. The index ranges from 0 to 100, with values interpreted as follows: a score of 0-29 indicates very difficult text, suitable only for academic-level readers; 30-49 indicates difficult text, corresponding to a university graduate level; 50-59 is fairly difficult, at a college graduate level; 60-69 is considered standard and understandable by students aged 13-15; 70-79 is fairly easy for the average reader; 80-89 is easy and corresponds to conversational language; and 90-100 is very easy, comprehensible to children around 11 years old.

The assessment results indicate that the majority of these publications are written in technical language. This may, in turn, reflect that the Central Bank's communications are primarily targeted toward professional market participants and analysts.

In particular, while the readability of the Central Bank's press releases and monetary policy reports became relatively more complex during 2023–2024, the clarity of these publications has improved in 2025. Similarly, an increase in the readability of the Monetary Policy Guidelines was observed in 2024.

Table 1. Assessment results of Central Bank publications based on the Flesch Readability Index

Document / Publication	Flesch Readability Index score	Difficulty level	Target audience
Press Release	2023 – 36.08 2024 – 29.74 2025 – 30.26	Difficult Very difficult / Difficult	Professional economists and analysts
Monetary Policy Report	2023 – 30.09 2024 – 25.89 2025 – 28.53	Difficult Very difficult / Very difficult	Professional economists and analysts
Monetary Policy Guidelines	2022 – 22.18 2023 – 19.82 2024 – 22.65	Very difficult / Very difficult / Very difficult	Professional economists and analysts

Source: CBU calculations

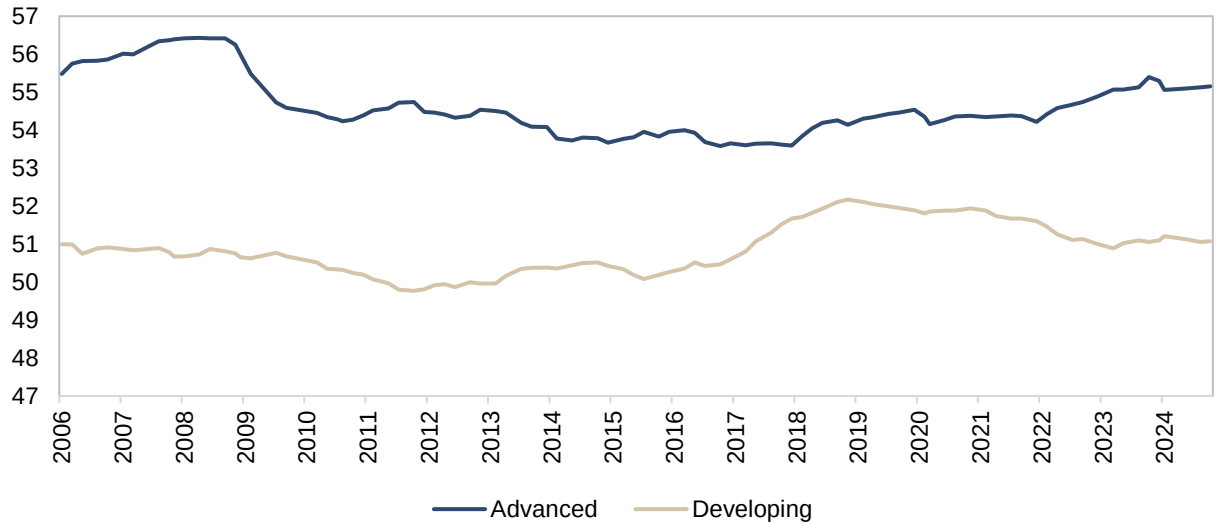
According to research conducted by specialists of the Bank of England, it is relatively difficult for the public to directly and accurately interpret central bank communications. This is largely explained by the fact that many published reports are written in a complex, technical language that is not easily understood by ordinary citizens.

The inability of the broader public to fully comprehend published reports or information, in turn, undermines trust in the central bank and adversely affects the effectiveness of monetary policy.[8]

In international practice, the comprehensibility of publications released by central banks varies depending on the level of economic development of countries. In developing economies, central bank communication tends to be somewhat more difficult to understand compared with advanced economies (Figure 1).

[8] Haldane, A. et al. 2020. "The 3 E's of central bank communication with the public". Bank of England, Staff Working Paper No. 847. January.

Figure 1. The relationship between development level and the Rudolf Flesch Reading Ease Index in countries that have switched to inflation targeting



Source: IMF calculations.

This pattern is explained by rising levels of financial literacy, the expansion of financial markets, and a significant increase in the volume of information flows as countries develop.

In the upcoming period, the Central Bank will further develop its communication policy and work to enhance its interaction with the broader public in several key areas.

First and foremost, the Central Bank plans to develop a medium-term "Communication strategy" for its communication policy.

This document will outline the key objectives and principles of monetary policy communication, define the communication channels and instruments to be used, and set out approaches for engaging with target audiences. Particular emphasis will be placed on ensuring that monetary policy analysis is forward-looking.

Second, the Central Bank intends to establish channels for receiving feedback from professional market participants and the general public through its main communication platforms (the official website and social media). This will allow the Central Bank to provide timely responses and share information addressing their questions and interests.

Third, the Central Bank aims to enhance its monetary policy communication and overall communication strategy by establishing cooperation with advanced foreign central banks and international financial institutions, facilitating the exchange of experience and best practices in this area.

In particular, by the end of 2025, the Central Bank plans to engage the IMF's technical assistance program under the "Central Bank transparency code." Within the framework of this program, the Central Bank's operations will be assessed against international standards of transparency, accountability, and credibility.

Fourth, the Central Bank's official website, its main communication channel, will be continuously enhanced based on the experience of leading international central banks. The primary focus will be on enriching the monetary policy section with comprehensive information and providing concise summaries of monetary policy publications directly on the website.

In addition, to enhance public knowledge of monetary policy, improve financial literacy, and support informed decision-making, the Central Bank will continue to produce and publish a variety of analytical materials on its official platforms, including videos, podcasts, infographics, and other similar content, with ongoing improvements to their quality.

APPENDICES

Appendix 1

Schedule of the Board meetings of the Central Bank of the Republic of Uzbekistan to revise the policy rate in 2026

In 2026, the meetings of the Central Bank Board regarding the review of the policy rate will be held based on the following schedule:

January 28;

March 18;

April 29;

June 17;

July 29;

September 16;

October 28;

December 16.

Following each Board meeting, a press release of the Central Bank is published on the official website of the Central Bank.

Also, a press conference will be held with the Central Bank management on the results of the main meetings on January 28, April 29, July 29 and October 28, and the “Monetary Policy Report” will be announced.

Appendix 2

Calendar of monetary policy publications of the Central Bank of the Republic of Uzbekistan for 2026

Publications	Frequency	Publication dates
Press release of a decision of the Central Bank Board on the policy rate	8 times a year	After each Board meeting of the Central Bank on the policy rate review: January 28; March 18; April 29; June 17; July 29; September 16; October 28; December 16.
Presentation at the press conference on the results of a Board meeting to review the policy rate and statement of the Chairman of the Central Bank	4 times a year	Within 3 days after each main meeting of the Central Bank Board to review the policy rate: by January 31; by May 2; by July 30; by October 29
Monetary policy report	quarterly	Within 20 days after each main meeting of the Central Bank Board to review the policy rate: by February 15; by May 15; by August 15; by November 15.
Conceptual Project of Monetary Policy Guidelines for 2027 and the period of 2028-2029	annual	Within 1 week after the last main meeting of the Central Bank Board to review the policy rate: by November 4.
Money Market and Liquidity Report	quarterly	In the first half of the month after each quarter: January; April; July; October.
Infographics on inflation expectations and perceived inflation	monthly	In the first half of the following month of the corresponding period

Consumer Sentiment Report	quarterly	In the second half of the following months: February; May; August; November.
Business Sentiment Report	quarterly	In the second half of the following months: February; May; August; November.
Analysis of the Real Estate Market	quarterly	In the second half of the month after each quarter: January; April; July; October.
Labor Market Report	quarterly	In the second half of the month after each quarter: January; April; July; October.

Appendix 3

The role of consumption composition across income groups in shaping perceived inflation

Although the inflation rate reflects the average change in prices in the economy, it often differs from the level of inflation perceived by households. This gap arises due to factors such as households' individual consumption baskets, limited attention, and their asymmetric responses to price changes.

When assessing inflation, consumers rely not on the broad-based consumption basket used in official price statistics, but rather on a limited set of goods that are most important to them and attract their attention. For example, in the United States, consumers' inflation expectations are predominantly shaped by the prices of dining services, new automobiles, and housing[9]. In Russia, the most influential items consist of frequently purchased food products and pharmaceutical goods[10]. In Poland, households typically form their views based on a narrow set of categories, primarily food, utility services, and clothing[11].

A number of studies also highlight that increases in prices tend to have a faster and stronger impact on households than price declines. In particular, since attention is primarily directed toward those items in the consumption basket whose prices have risen, perceived inflation typically forms at a level higher than headline inflation. When inflation accelerates, households register this change almost immediately; however, when inflation declines, the adjustment in perceived inflation occurs much more gradually.

At the same time, consumers tend to disregard minor price fluctuations and respond only to more noticeable changes. This form of rational inattention is explained by the time and cognitive effort required to track and process every small change in prices[3].

The perception of inflation also varies depending on the overall economic environment and the individual circumstances of consumers. In periods of high inflation, households tend to pay greater attention to price developments, whereas in low-inflation periods, most people tend to pay little attention. Perceived inflation also differs across consumers depending on factors such as age, income, place of residence, and level of education.

Understanding these characteristics is crucial for conducting effective monetary policy, as a significant portion of the population perceiving inflation to be higher than the official measure can negatively influence inflation expectations and complicate efforts to rein in inflation.

---

[9] Campos, Chris, Michael McMain, and Mathieu Pedemonte. 2022. "Understanding Which Prices Affect Inflation Expectations." Federal Reserve Bank of Cleveland, Economic Commentary 2022-06.

[10] Грищенко В., Кадрева О., Поршаков А., Чернядьев Д. "Оценка заякоренности инфляционных ожиданий для России." Analytical note. Bank of Russia, July 2022.

[11] Ewa Stanisławska, 2019. "Consumers' perception of inflation in inflationary and deflationary environment," NBP Working Papers 301, Narodowy Bank Polski.

When examining the gap between headline and perceived inflation, it is important to analyze households by income groups. This is because the composition of consumption expenditures is directly shaped by income levels. Low-income households allocate a significant portion of their budgets to basic needs, particularly food, utilities, and transport. In contrast, in the consumption baskets of higher-income households, the share of such expenditures is smaller, while services, cultural and leisure activities, and other secondary goods carry greater weight.

For example, if food prices rise by 15 percent over a year while all other goods and services increase by 5 percent, the overall inflation rate, i.e., the average indicator, may reach around 9.5 percent. However, in this scenario:

- **For low-income households,** the 15 percent increase in food prices – which constitutes the largest share of their expenditures – has a significant impact on total household spending, resulting in perceived inflation potentially exceeding 15 percent.

- **For high-income households,** where the share of non-food items and services is higher, this effect is smaller, and perceived inflation may be around 6-7 percent.

As a result, a gap emerges between official statistics and the inflation perceived by different segments of the population.

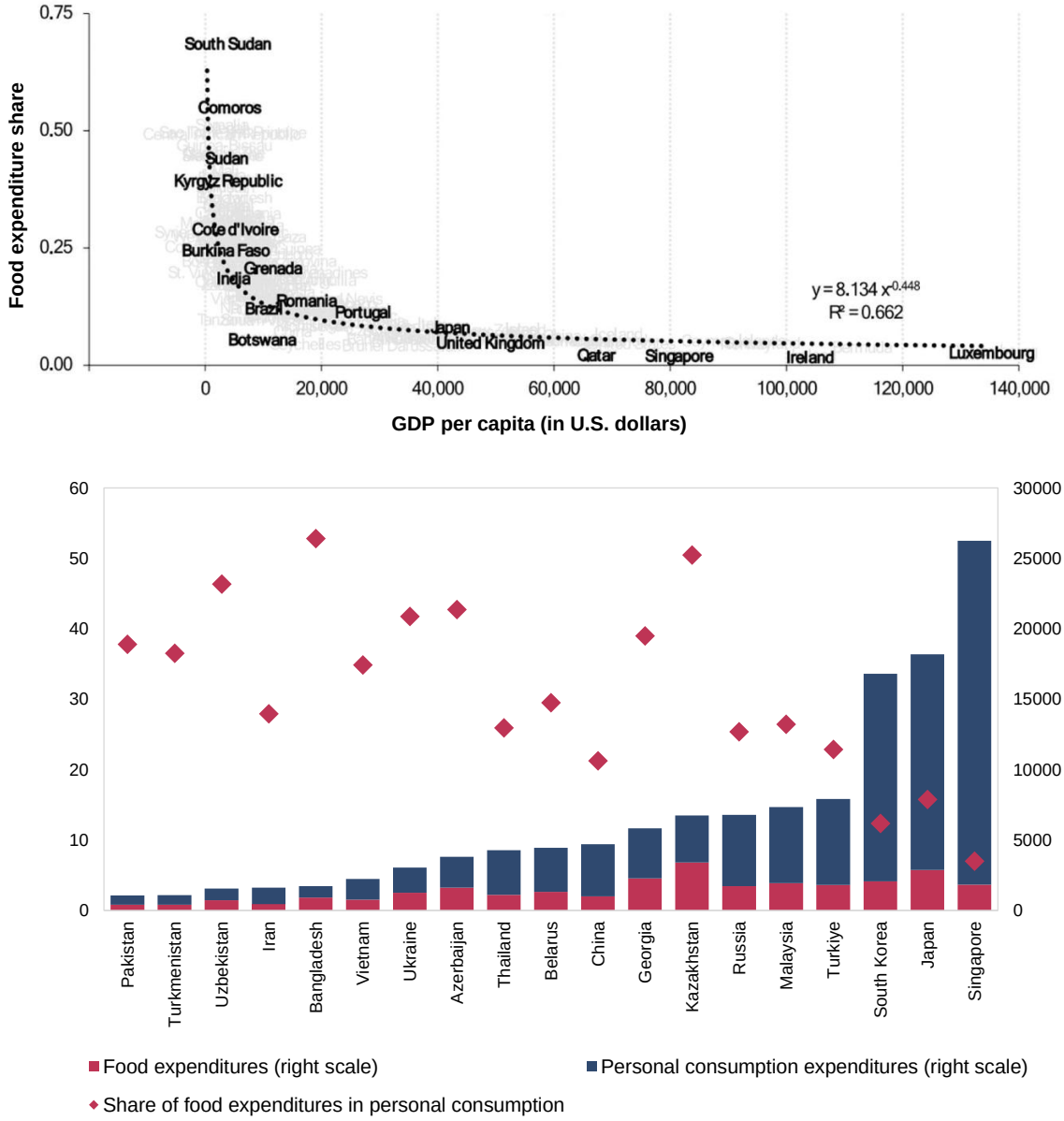
Economic theory describes a relationship known as “Engel’s Law,” according to which the share of expenditure on primary needs, such as food, declines as income rises. Several empirical studies have been conducted to assess the extent to which this law holds globally. In particular, research by Savant Nzayiramya et al. (2025) presents several important conclusions:

First, the higher a country’s level of economic development (GDP), the smaller the share of food expenditures in household consumption. According to the analysis, a 1% increase in per capita GDP leads to a 0.448 percentage point decrease in the share of food expenditures (Figure 1).

Second, in low-income countries, the share of food in household expenditures typically exceeds 40 percent, whereas in high-income countries, this share is often below 10 percent. The difference is even more pronounced when looking at marginal expenditures. In low-income countries, households allocate around 42 percent of additional income to food, while in high-income countries, only about 5 percent of additional income is spent on food. This indicates that households in developed countries have already met their basic food needs and can direct new income toward sectors that improve their quality of life.

Third, a high share of food expenditures makes households particularly vulnerable to price and income shocks. For families whose budgets are heavily weighted toward food, sharp increases in food prices or reductions in income can lead to significant social consequences.

Figure 1. The relationship between the share of food expenditures by country and GDP per capita.



Source: 1. Nzayiramya, S., Muhammad, A. & Baffoe-Bonnie, A. A global assessment of food and non-food spending: evidence from 173 countries and implications for food security. Agriculture & Food Security 14, 20 (2025).
2. USDA Economic Research Service (ERS). Data on Expenditures on Food and Alcoholic Beverages in Selected Countries, 2019-2023

The study also examined the price elasticity of consumption expenditures. Sensitivity to price changes is directly linked to a country's income level: in low-income countries, the price elasticity is estimated at around -0.70, whereas in high-income countries, it is approximately -0.30.

In this context, a 10% increase in food prices in low-income countries forces households to reduce consumption by approximately 7%. In contrast, in high-income countries, consumption declines by only around 3%. This indicates that food inflation exerts a considerably stronger impact on populations in low-income countries.

This naturally raises the question: why, despite being a vital necessity for low-income households, does an increase in food prices lead them to sharply cut consumption?

The main reason lies in the substantial differences in financial capacity and budget composition between the two groups. High-income households can offset price increases by reducing secondary expenditures, such as dining out, entertainment, or travel.

In contrast, low-income households lack this flexibility, as nearly their entire income is allocated to primary necessities. Consequently, when food prices rise, they have no alternative but to reduce their consumption.

Moreover, while high-income households have the option of switching to substitute products when prices rise, low-income households are more likely to remain in the cheapest product segment. In this segment, price increases leave few or no cheaper alternatives, and the only viable response is to reduce consumption.

To analyze how such differences manifest in the case of Uzbekistan, the results of the **Household Consumption Sentiment Survey** for 2024-2025 were examined (Figure 2).

For each income group, the share of respondents who made a purchase of a particular type of major item was calculated by dividing the number of respondents selecting that purchase type by the total number of participants in the corresponding income group. Since respondents could select multiple options simultaneously, the sum of shares for each group exceeds 100 percent. For analytical purposes, respondents were divided into three groups based on household income:

- **low-income households:** monthly household income below 5 million soums;
- **middle-income households:** monthly household income between 5 million and 10 million soums;
- **high-income households:** monthly household income above 10 million soums.

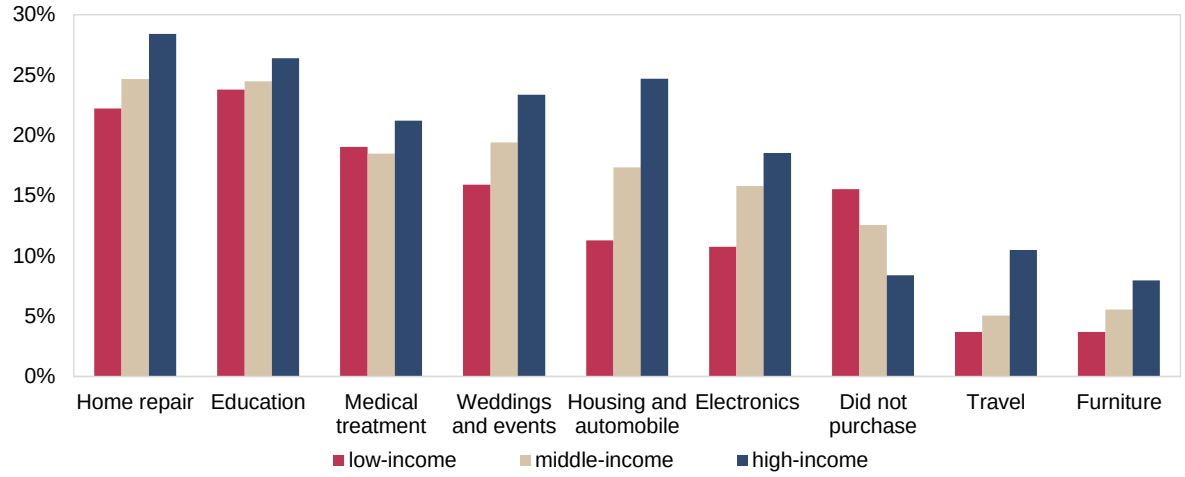
The analysis of response shares revealed significant differences in purchasing behavior across income groups. In particular, 16 percent of low-income respondents reported not making any major purchases in recent months, compared with only 8 percent among high-income households – half as much. This indicates that the spending of the low-income group is primarily directed toward daily necessities.

In contrast, high-income households tend to allocate their spending mainly to asset accumulation and enhancing their standard of living. Notably, the largest differences are seen in investments in capital assets such as housing and automobiles (25 percent), which is about twice the level of low-income households (11 percent).

Additionally, expenses such as travel (10 percent) occupy a significant share in the consumption basket of high-income households, considerably higher than that of low-income households (4 percent). Spending on home renovations (28 percent) and celebrations or events (23 percent) is also notably larger, highlighting the differences in living standards.

At the same time, some major expenses appear equally important across all income groups. Expenditures on education (24-26 percent) and healthcare (18-21 percent) show similarly high shares among all groups.

Figure 2. The composition of major purchases by income groups, *as a percentage of the total*



Source: CBU calculations

Such differences in consumption expenditures, in turn, influence households' sensitivity to price changes. To examine how groups with different consumption baskets perceive inflation, the results of the **inflation expectations survey** for 2023-2025 were analyzed across various income groups (Figure 3).

Unlike the previous survey, respondents in this survey were asked about their personal income rather than household income. Based on this, the following income groups were defined for the analysis:

- **low-income:** monthly personal income up to 3 million soums;
- **middle-income:** monthly personal income from 3 to 7 million soums;
- **high-income:** monthly personal income above 7 million soums.

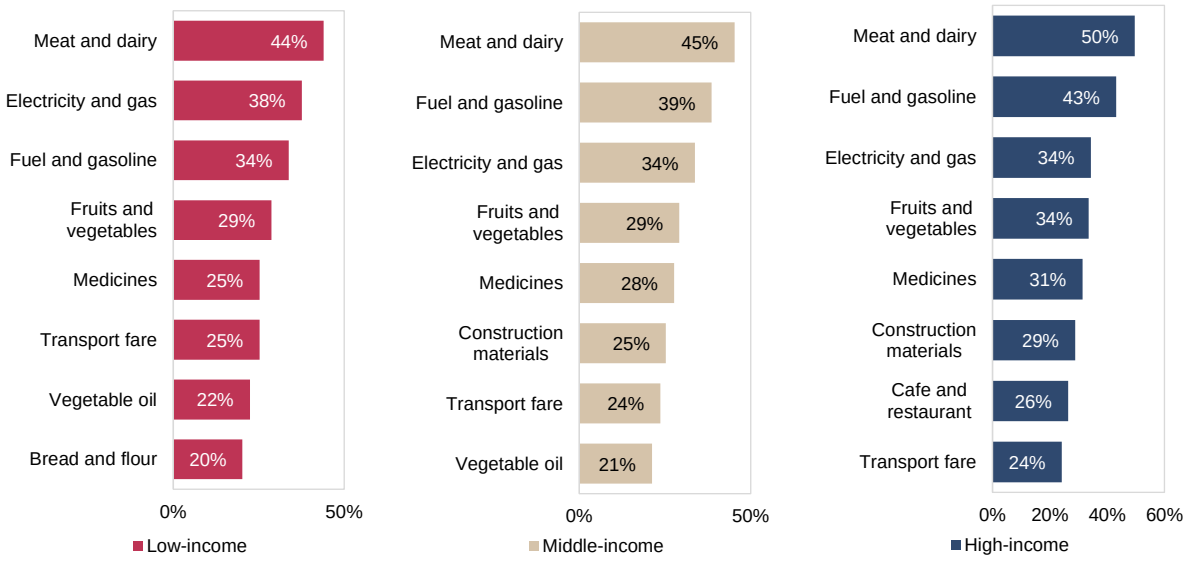
The results indicate that low-income households' perception of inflation is primarily linked to basic goods and services. For this group, after food, the most noticeable driver of inflation is utility services. Among low-income respondents, 38% reported increases in electricity and gas prices, a share higher than in other income groups. In addition, for universally important goods such as meat and milk (44%), the price increases of the cheapest sources of calories – such as vegetable oil (22%) and bread (20%) – were also relatively more strongly perceived.

For high-income households, inflation is more closely associated with personal transport expenditures, with 43 percent of respondents in this group citing an increase in gasoline prices. This figure is notably higher than that observed among low-income households (34 percent).

Furthermore, high-income respondents more frequently reported price increases in restaurants and cafes (26 percent), pharmaceuticals (31 percent), and construction materials (29 percent), indicating that these categories are more prominently perceived within their consumption basket.

Figure 4 presents the dynamics of perceived inflation across income groups alongside headline inflation. The chart shows that, for all income categories, perceived inflation has persistently exceeded the headline rate. At the same time, the highest level of perceived inflation is observed among high-income households.

Figure 3. Goods and services for which price increases were recorded by household income groups, *as a percentage of the total*

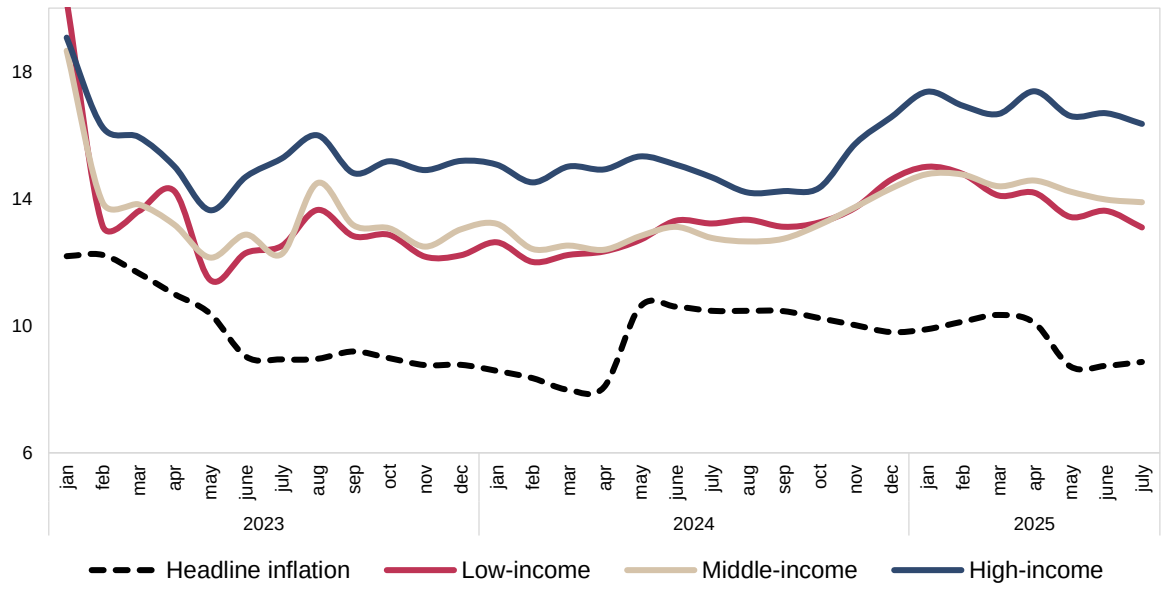


Source: CBU calculations

This outcome may reflect differences in the quality, type, and market segment of the goods and services consumed by each group. High and low-income households often purchase entirely different products that share the same name. For example, in the categories of food and pharmaceuticals, high-income households tend to prefer higher-quality, imported, or branded items. Prices in these segments typically adjust more rapidly and more sharply than those of lower-cost alternatives.

Similarly, while transportation costs for low-income households largely reflect the relatively stable fares of public transport, for high-income households, they are shaped by taxi services, where prices tend to fluctuate dynamically. In the housing and rental market as well, high-income households are more likely to choose centrally located, more expensive properties whose prices grow more rapidly.

Figure 4. Perceived inflation dynamics by household income groups, *in percent*



Source: CBU calculations

This suggests that perceived inflation depends not only on broad categories of goods and services, but also on the quality and type of products consumed within those categories.

Appendix 4

Forecasting Cash in Circulation: ARIMA Model

Cash in circulation[12] is one of the main and most volatile autonomous factors affecting the liquidity of the banking system. Changes in the volume of cash in circulation directly affect the correspondent accounts of commercial banks at the Central Bank. An increase in cash in circulation reduces banking system liquidity, while a decrease has an increasing effect. For this reason, forecasting cash in circulation enables the Central Bank to determine the size of liquidity-management operations and to regulate the banking system's liquidity effectively.

In the medium and long term, demand for cash is shaped by a range of factors, including increases in GDP, the inflation rate, interest rates in the economy, and the development of payment systems. As the economy grows and the supply of goods and services expands, demand for cash in circulation also rises (Figure 1). In the short term, demand for cash is mainly driven by seasonal factors and is considered to have a **high seasonality character** (Figure 2).

Since the Central Bank's monetary operations are primarily aimed at regulating liquidity in the short run, the Central Bank forecasts cash mainly for short horizons (1-1.5 months).

In international practice, two econometric approaches are mainly used to forecast cash in circulation: **Structural Time Series models** and **ARIMA models**.

In Structural Time Series models, series are decomposed and forecast into trend, seasonal and irregular components using the Kalman filter. In ARIMA models, forecasting is implemented by including conditional variables ("dummy variables") that capture various seasonal and calendar effects.

Figure 1. Cash in circulation, *bln soums*

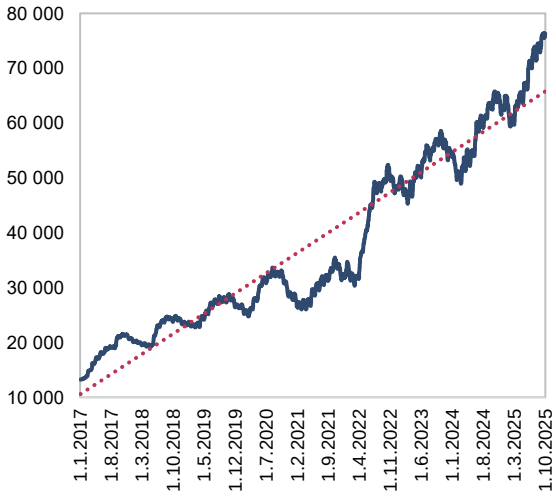
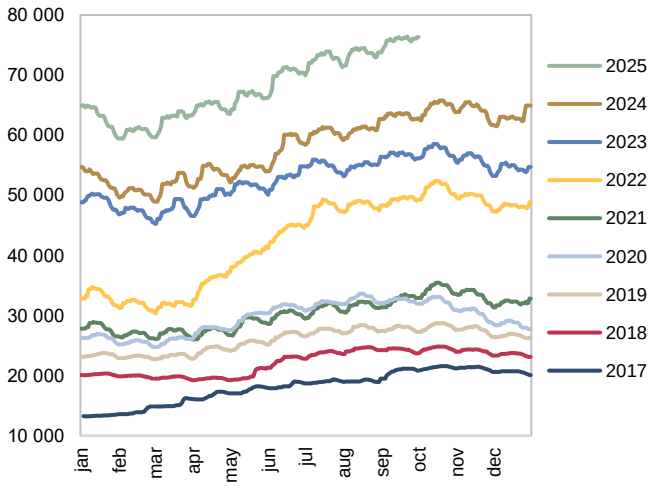


Figure 2. Cash in circulation by year, *bln soums*



Source: CBU data.

[12] The concept of cash in circulation includes cash issued by the central bank, but excludes cash held in central bank's vaults.

In forecasting cash in circulation, the Central Bank uses the ARIMA econometric model widely applied among many central banks. The ARIMA model consists of three parts — AR (auto regressive), I (integrated), and MA (moving average).

The AR part forecasts the next period as a function of previous periods. The MA part allows the forecast to account for the effects of permanent shocks and capture their persistence. The I part indicates the number of transformations needed to convert a non-stationary series into a stationary one.

In the first step, the series is transformed from non-stationary to stationary using a logarithmic function. This transformation focuses on percentage changes in the series and thereby allows forecasting for subsequent periods.

Weekly seasonality factors – changes in cash in circulation over weekdays – are assessed based on the seasonality across weekdays. Typically, a significant increase in cash in circulation is observed on Mondays and Fridays, while decreases are seen on Tuesdays and Wednesdays. The Friday increase is explained by ATM replenishment before the weekend so that households can withdraw cash; the reductions on Tuesday and Wednesday are explained by cash turnover deposits to bank cash offices (Figure 3).

Monthly seasonality factors – changes in cash in circulation over the month – are assessed based on monthly seasonality. In the first half of the month, cash in circulation increases due to wage, pension and other budget payments; in the second half of the month, cash decreases due to tax payments and other mandatory payments (Figure 4). Monthly changes in cash in circulation are represented by the following trigonometric functions:

$$d_t = \sum_{n=1}^{p}\left(a_n \cos\frac{2\pi n m_t}{M_t} + b_n \sin\frac{2\pi n m_t}{M_t}\right) \quad (1)$$

where d_t is the deterministic seasonal component, p is the maximum number of frequencies included in the model, m_t is the day of the month (1-31), M_t is the total number of days in the given month, n is the number of different frequencies used to model within-month effects, and a_n, b_n are coefficients.

Figure 3. Weekly seasonality in currency in circulation, *average change, percent*

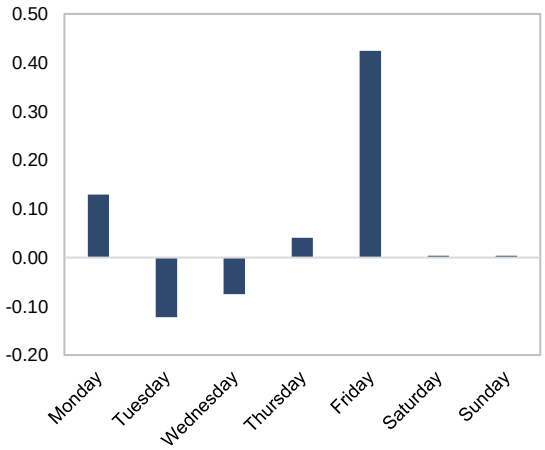
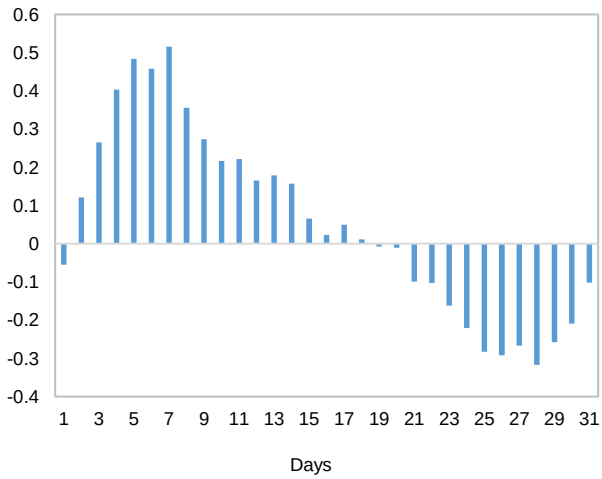


Figure 4. Monthly seasonality in cash in circulation, *average change, percent*



Source: CBU data.

Annual seasonality factors – assessed based on the changes in **cash in circulation** across the months of the year. Mainly, increases in cash in circulation are observed in Q2-Q3 and decreases in other quarters, which is explained by the significant increase in consumer activity during that period (Figure 5).

Holiday effects – assessed based on the seasonality of changes in cash in circulation in the days leading up to holidays. Holidays have a significant impact, with a noticeable increase in cash in circulation observed in the pre-holiday days (Figure 6). This is usually explained by the payment of holiday bonuses before holidays and the stocking of ATMs with more cash, as bank days are non-working days during holidays.

In addition to the above variables, sharp changes in the volume of cash in circulation are analyzed one by one, and other variables are included as necessary. If the high increase or sharp decrease cannot be explained by holidays or other variables after this, they are included as separate outlier variables.

After all variables related to the change in the volume of cash in circulation have been included, the ARIMA model is formed based on them and forecasting is performed. In the initial stage, forecasting is done in the form of comparing the forecast with the actual available data for that period, using data from previous periods, and the model is tested (Figure 7).

After the initial forecast check, the model is re-estimated with various econometric tests and the final forecasting equation is formed. The final formula has the following form:

$$\Delta \boldsymbol{L_{cic}} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1 AR(4)} + \boldsymbol{\beta_2 AR(6)} + \boldsymbol{\beta_3 AR(11)} + \boldsymbol{\beta_4 MA(1)} + \boldsymbol{\beta_n DV(1:n)} + \boldsymbol{\varepsilon} \quad (2)$$

where $\Delta \boldsymbol{L_{cic}}$ is the logarithmic difference of cash in circulation; *AR* autoregressive terms; *MA* – moving-average term; *DV* – dummy variables, and $\boldsymbol{\varepsilon}$ – error term.

Figure 5. Annual seasonality in currency in circulation, *average change, percent*

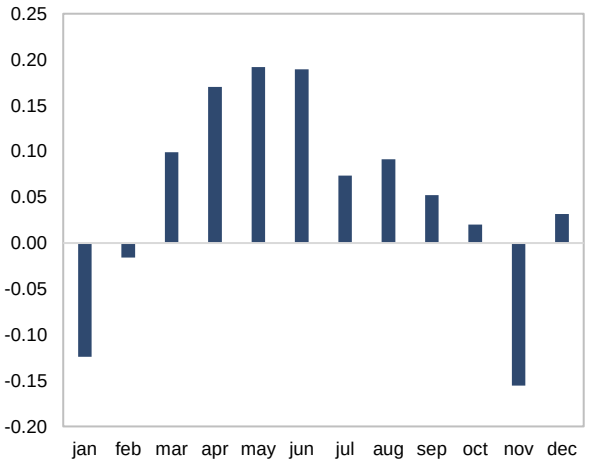
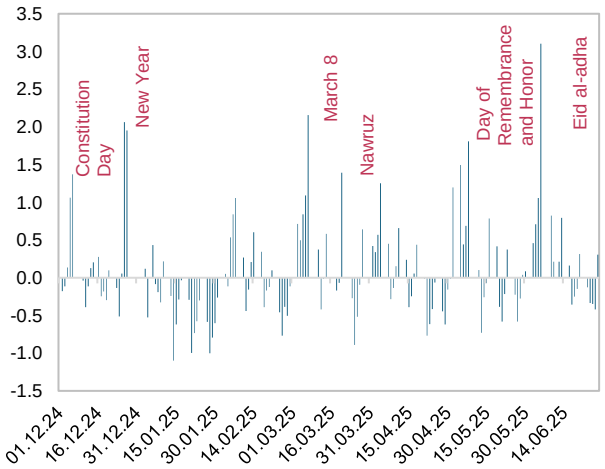
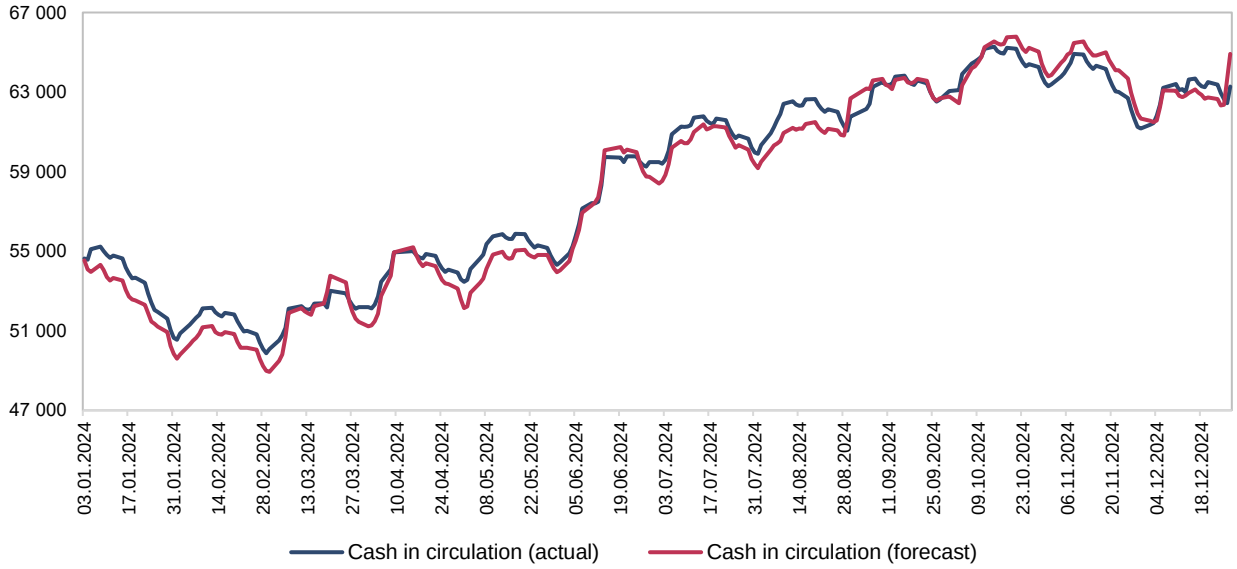


Figure 6. Pre-holiday seasonality in currency in circulation, *average change, percent*



Source: CBU data.

Figure 7. Cash in circulation, actual and forecast (*initial*), *bln soums*



Source: CBU calculations.

The number of **dummy variables in the model is 24**. As autoregressive variables, the model uses AR (4) – the change in cash value 4 days ago, AR (6) – the change in cash value 6 days ago, and AR (11) – the change in cash value 11 days ago. The impact of cash changes 4 and 6 working days ago on the change today is high, while the value from 11 days ago is mainly explained by the **repetition of seasonality**. The final model has the following final appearance (Table 1):

Table 1. ARIMA Model Results for Forecasting Changes in Cash in Circulation *(The Main Independent and Dummy Variables)*

Variables	Coefficient	Standard Error	T-Statistic	Probability
Wednesday	-0,2542	0,0444	-5,7262	0,0000
Thursday	-0,1085	0,0435	-2,4907	0,0130
Friday	-0,4438	0,0565	-7,8602	0,0000
January	-0,3785	0,0542	-6,9828	0,0000
June	0,2119	0,0451	4,6943	0,0000
November	-0,2704	0,0994	-2,7203	0,0067
a2 – trigonometric function coefficient	-0,1332	0,0274	-4,8668	0,0000
a3 – trigonometric function coefficient	-0,1393	0,0247	-5,6325	0,0000
a4 – trigonometric function coefficient	-0,0534	0,0214	-2,4934	0,0129
b1 – trigonometric function coefficient	0,4368	0,0327	13,3482	0,0000
b2 – trigonometric function coefficient	0,2127	0,0258	8,2320	0,0000
b4 – trigonometric function coefficient	-0,0450	0,0195	-2,3112	0,0211
NY_1 – New Year's Eve working day	1,1204	0,3045	3,6789	0,0003
WO_1 – Working day before March 8	0,3261	0,1134	2,8757	0,0042
NAV_1 – Navruz eve working day	1,0123	0,1123	9,0128	0,0000

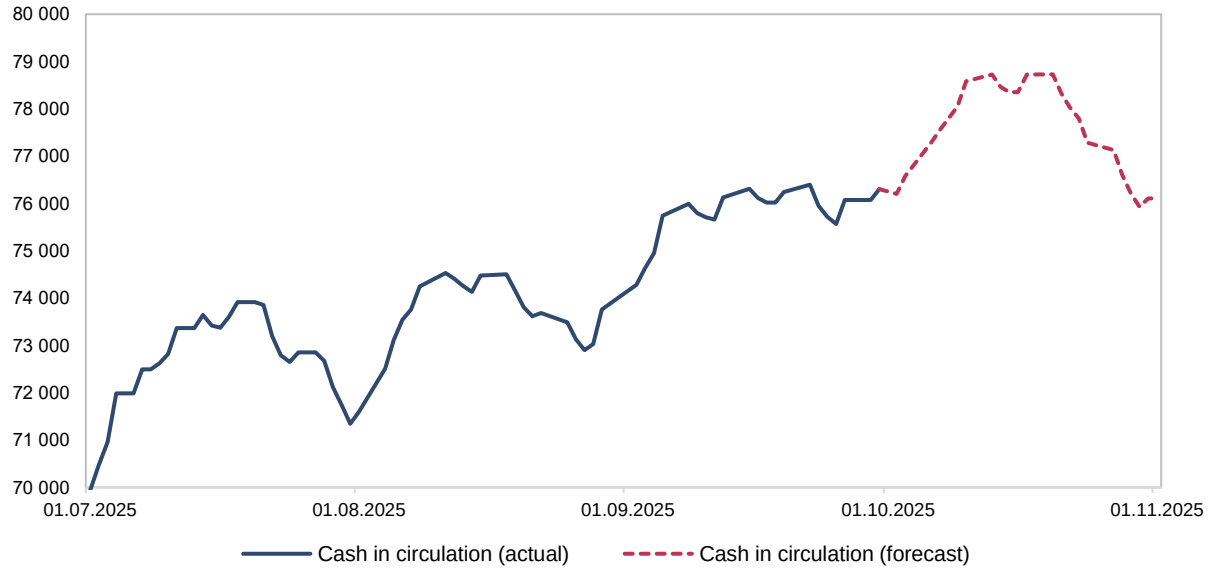
DMH_1 – Remembrance/Honor eve working day	-0,2504	0,1416	-1,7681	0,0775
IND_1 – Independence Day eve working day	0,9915	0,1946	5,0942	0,0000
FITR_2 – 2 working days before Eid al-Fitr	0,5794	0,1404	4,1258	0,0000
FITR_1 – 1 working day before Eid al-Fitr	0,8046	0,2495	3,2252	0,0013
ADHA_1 – 1 working day before Eid al-Adha	1,1347	0,1073	10,5776	0,0000
FEBRUARY - February	-0,1245	0,0635	-1,9609	0,0503
_2WD – two working days after holidays	-0,4505	0,0347	-12,9905	0,0000
LWD – last working day of the week	0,8532	0,0538	15,8515	0,0000
OUTLIER43 – variable explaining abrupt change	1,6473	0,6931	2,3766	0,0178
AR(4) – change 4 days ago	-0,0791	0,0446	-1,7738	0,0766
AR(6) – change 6 days ago	-0,0957	0,0475	-2,0160	0,0442
AR(11) – change 11 days ago	-0,1143	0,0441	-2,5889	0,0099
MA(1) - moving-average order 1	0,2402	0,0279	8,6176	0,0000

Source: CBU calculations.

In the final forecasting stage, cash in circulation is forecast mainly one month ahead, and final results are adjusted based on expert judgment.

At the end of each week, the difference between the forecast indicators and the actual data is determined, the model is estimated, and the factors that caused the deviation (if any) are analyzed. For example, the deviations between the forecast and actual indicators for September were as follows (Table 2):

Figure 8. Cash in circulation (forecast), *bln soums*



Source: CBU calculations.

Table 2. Deviations Between Cash in Circulation Forecast and Actual Indicators

Indicators	Value
Root Mean Squared Error (RMSE)	374.7
Mean Absolute Error (MAE)	285.2
Mean Absolute Percentage Error (MAPE)	0.38%
Mean Forecast Error (MFE)	-199.1

Although the ARIMA model is an **effective model for short-term forecasting**, it cannot capture unexpected shocks. Therefore, the model result requires continuous expert evaluation and improvement at regular intervals.

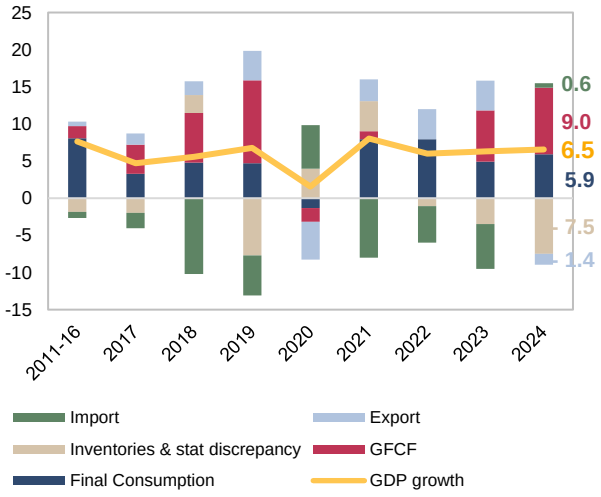
Appendix 5

The role of investments in the economy of Uzbekistan

Structural reforms in Uzbekistan's economy, which began in 2017, have created additional factors for economic growth. Alongside traditional consumption and public investment, private investments have also become a major driver of the economy.

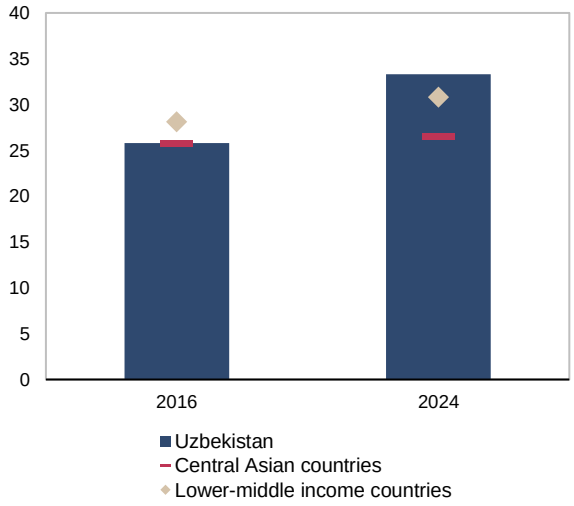
The liberalization of foreign trade and exchange rate policies, along with support for private sector development, has improved the overall business environment and significantly increased the inflow of both foreign and domestic investments. Although the 2020 pandemic and subsequent recovery processes negatively affected investment opportunities – amid global tight financial conditions, weak investment demand, and disruptions in supply chains, which reduced the share of investments in the economy – recent years have seen a positive trend in investment dynamics, making it one of the key drivers of Uzbekistan's economic growth. In particular, in 2023-2024, the contribution of investment in fixed capital to GDP growth averaged 8 percent, exceeding that of consumption (5.4 percent) and exports (1.3 percent) (Figure 1).

Figure 1. Contribution of GDP components to growth, 2011-2024[13]



Source: National Statistics Committee.

Figure 2. The share of investments in GDP [14]



Source: Asian Development Bank.

Role of Investments. The ratio of gross capital formation to GDP in Uzbekistan has increased significantly compared to 2016 (26 percent), reaching 33 percent by the end of 2024. This level is among the highest not only in Central Asia but also among countries with middle-to-low-income levels. The high share of investment is primarily directed toward productivity-enhancing areas, including industrial modernization, housing construction, and infrastructure projects implemented through public funding.

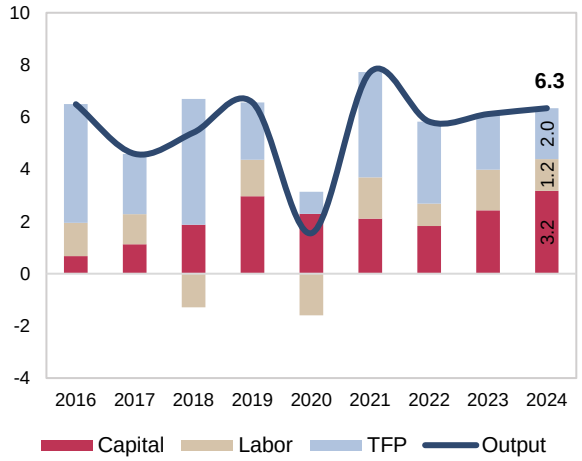
These expenditures, in turn, contribute to increasing the economy's potential and serve as a key factor supporting economic development.

When analyzing economic growth through production factors, recent years show that rising investments have steadily expanded the capital stock. Preliminary estimates indicate that the volume of capital resources has increased by 81 percent over the past eight years, and the ratio of total capital to GDP has improved from 2 times in 2016 to 2.4 times in 2024.

[13] Statistical discrepancy is included inside inventories

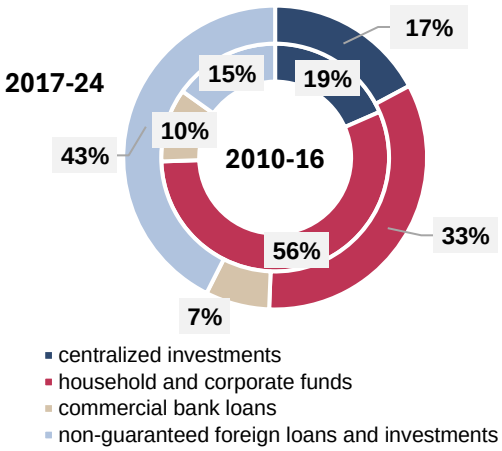
[14] For Kyrgyzstan, Tajikistan, and Turkmenistan, the 2023 indicator is used. Countries with lower-middle income are those classified as such by the World Bank.

Figure 3. GDP composition by factors of production, 2016–2024



Source: CBU calculations

Figure 4. Sources of financing for investments in fixed capital, 2018 and 2024



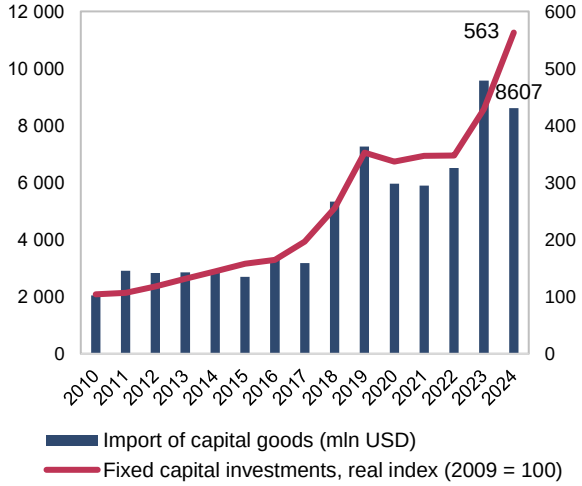
Source: National Statistics Committee.

This reflects the faster growth of investment relative to production. Under conditions of high investment growth, it is crucial to develop human capital and increase investment in sectors with low labor productivity to ensure that production efficiency rises at a corresponding pace.

Significant qualitative changes are also occurring within the investment structure. While investment financing was primarily sourced from public funds during 2010-2016, in 2017-2024, on average, 43 percent of total investments (Figure 4) came from private and foreign sources. By the first half of the current year, two-thirds of investments were financed through private and foreign investment and credit.

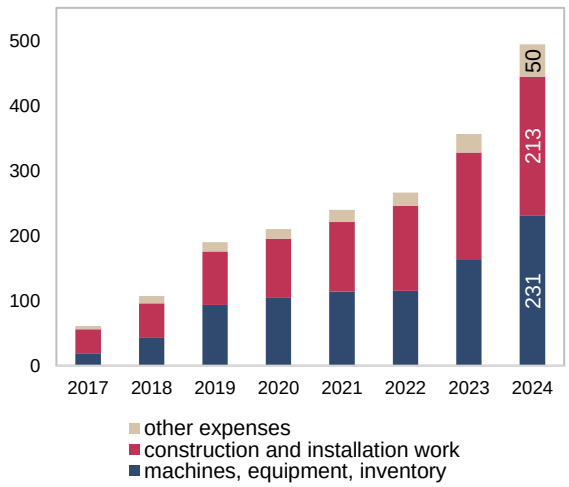
The sharp increase in foreign financing can be explained, on one hand, by the expanded access to credit from financial institutions, and on the other hand, by the improving investment climate in the country and growing confidence among foreign investors. In particular, in 2024, foreign direct investment (FDI) accounted for 61 percent of the total foreign investment and credit component.

Figure 5. Import of capital goods and real investments in fixed capital, million USD



Source: National Statistics Committee.

Figure 6. Technological composition of investments in fixed capital[15]**, *trillion UZS***



Source: National Statistics Committee.

[15] The 2024 indicator is based on preliminary (unrevised) data. Data for 2010–2017 are not available

The growth of investment in fixed capital is largely driven by an increase in the import of machinery and equipment (Figure 5). The inflow of such capital goods typically brings new knowledge, skills, and additional efficiency-enhancing factors.

Expenditures on machinery, equipment, and tangible circulating assets account for nearly half of total investment in fixed capital, while a similar share is directed toward construction and installation works (Figure 6).

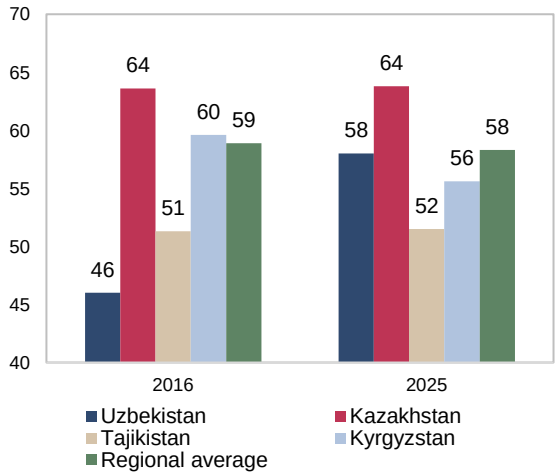
Foreign direct investment (FDI). In recent years, Uzbekistan has experienced a significant increase in economic freedom, approaching the regional average (Figure 7). The improving business environment in the country has contributed to the growth of FDI, which is considered to enhance production efficiency. The share of net FDI in GDP, as measured through the balance of payments, increased from 1.7% in 2010-2016 to an average of 2.5% in 2017-2024. This level is relatively high compared to other Central Asian countries but lower than in South Asian countries (Figure 8). The assets created through the absorption of these investments – including buildings, structures, and capital equipment – accounted for an average of 2% of GDP in 2010-2016, rising to 10% by 2024.

In the first half of 2025, 195 trillion UZS (or USD 15.1 billion) of foreign investment and credit was directed toward the creation of fixed assets, with the largest shares allocated to manufacturing (32%), electricity and gas supply (18%), and the mining industry (13%).

Analysis of investment dynamics financed from foreign sources. Following the global financial tightening observed since 2022, borrowing costs in both foreign and domestic currency increased in Uzbekistan. Specifically, the average interest rate on foreign currency loans for legal entities rose from 7% to 10.5%, while the domestic currency equivalent increased from 21% to 23%. As a result, firms' investment activity financed through internal funds or commercial bank loans slightly declined (Figure 9).

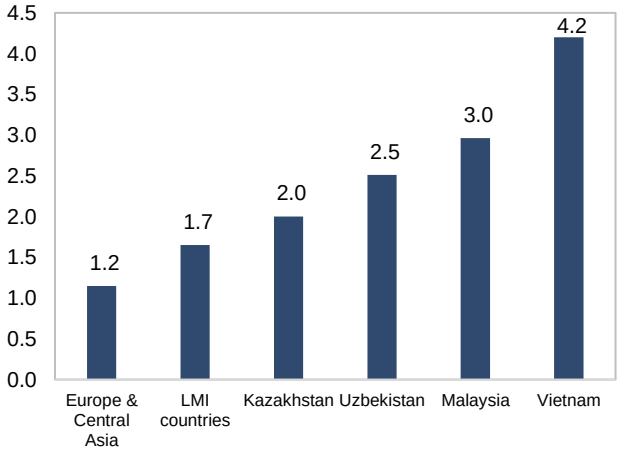
Between 2022 and 2024, the ratio of foreign investment and loans attracted to finance fixed capital to GDP showed a notable increase. On the one hand, this can be explained by the restoration of investment flows from investors to developing countries to pre-pandemic levels, and on the other hand, by the high demand for external loans and credits from state-owned enterprises.

Figure 7. Economic Freedom Index



Source: heritage.org

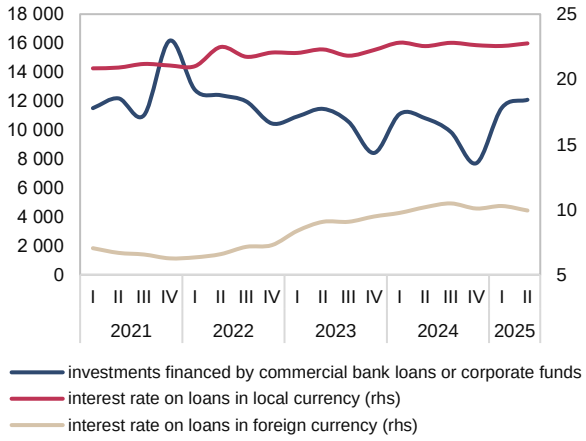
Figure 8. Share of FDI in GDP, 2017–2024, average value, %



Source: World Bank

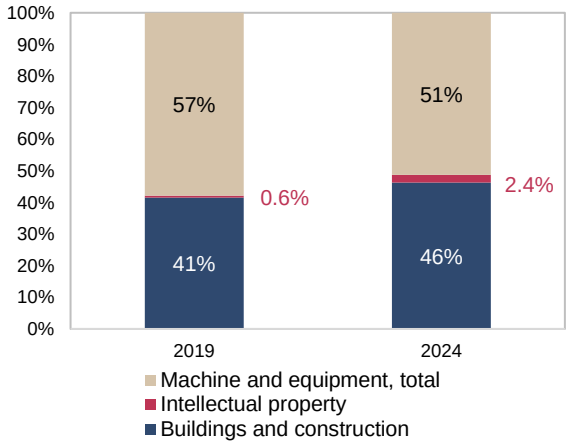
Investments in long-term and innovative activities. To ensure high and stable growth rates for Uzbekistan, it is necessary to increase investments in long-term and innovative activities. Between 2019 and 2024, investments in intellectual property products rose to 2.4 percent of total fixed capital investments. Further increasing the share of these investments would enhance export potential, diversify the domestic market, and provide a competitive advantage in the global economy, thereby contributing to faster economic growth.

Figure 9. Interest rate on loans and investments financed by commercial bank loans or enterprise funds, *billion UZS, %*



Source: CBU, National Statistics Committee

Figure 10. Composition of investments in fixed capital by types of fixed assets, *%*



Source: National Statistics Committee

Appendix 6

Coordination of monetary and macroprudential policies and their complementary significance

After the global financial crisis of 2007-2009, perspectives on the relationship between price stability and financial stability changed fundamentally. Prior to the crisis, most economists and experts generally considered that ensuring price stability in the economy would, by itself, suffice to maintain financial stability. However, the global financial crisis demonstrated that while price stability is necessary for financial stability, it is not sufficient. Consequently, following the crisis, the importance of macroprudential policy aimed at preventing systemic financial risks has increased in central bank operations. This has placed particular emphasis on the alignment of monetary policy and macroprudential policy.

The central bank's monetary policy is primarily aimed at ensuring low and stable inflation and encompasses instruments such as the policy rate, open market operations, and reserve requirements. The effectiveness of monetary policy is assessed based on both the level of inflation and inflation expectations.

Macroprudential policy is a framework aimed at maintaining the safety and stability of the entire financial system, reducing system-wide risks, and preventing financial crises. It helps curb the buildup of risks such as excessive borrowing, rapid credit growth, or sharp increases in asset prices.

Why does price stability not guarantee financial stability?

The stability of goods and services prices is very important, as it protects the incomes and savings of the population from inflation. However, stable consumer prices do not always imply the safety of the financial system. There are several reasons for this. In particular:

1. Rapid growth of asset prices and credit

Sometimes, while consumer prices – such as those for food or clothing – remain stable, the prices of assets like housing, land, or stocks rise very quickly. This situation can encourage investors (households, financial institutions, or firms) to take excessive loans to purchase these assets, creating a bubble in asset prices. When the bubble bursts, the likelihood of a financial crisis sharply increases, even if inflation remains low. (For example, in 2008 in the United States, inflation was low, but housing prices had risen excessively. As a result, the housing price bubble formed and burst, triggering a global financial crisis.)

2. Increase in risk appetite during periods of low interest rates

Over extended periods of price stability, low interest rates encourage banks and investors to shift from low-yield safe assets to higher-risk assets in search of greater returns. As a result, risks accumulate within the system, increasing its vulnerability, so that even minor shocks can lead to significant losses.

3. Gaps in the supervision of non-bank credit institutions

Not all lending in the economy is carried out through traditional banks. Alongside commercial banks, other financial institutions also engage in lending activities, such as consumer credit, installment sales with or without interest, and other forms of credit.

However, since these institutions are not directly influenced by monetary policy instruments, tightening of monetary conditions has little effect on their lending volumes. As a result, hidden risks can accumulate in the economy. This means that even when inflation is low, systemic hidden vulnerabilities may continue to rise.

4. Financial innovations and inclusiveness

The use of financial innovations and broader access to financial services by the population is generally a positive development for the financial system[16]. It enhances economic efficiency and supports the growth of the financial sector. However, these innovations can also introduce new risks that are not addressed in existing regulations.

Typically, new technologies and products evolve rapidly, while regulation lags behind. Such regulatory delays can amplify the development cycle (boom-bust cycle) and potentially create crisis risks in the future.

Therefore, when new participants or technologies join the financial market, it becomes increasingly necessary to continuously monitor the potential new risks they may introduce.

The coordination of monetary and macroprudential policies

In international practice, there are different views on whether central banks should respond to asset price bubbles or refrain from intervening, which can generally be divided into two groups.

The first group of economists argues that central banks should not respond to asset price bubbles. They contend that there are so many types of assets in the economy that it is practically impossible to identify bubbles in their prices. Using monetary policy tools against asset bubbles would affect not only the prices of overvalued assets but could also have negative consequences for the entire economy. For example, raising the policy rate could reduce overall demand and slow down economic growth. Economists in this group emphasize that the damage caused by an asset bubble can be mitigated and the economy restored after the bubble bursts through soft/expansionary monetary policy.

The second group of economists, on the contrary, believes that central banks should actively respond to asset price bubbles, following the “leaning against the wind” approach[17].

Supporters of this view argue that even though identifying asset price bubbles is complex, ignoring this risk poses a serious threat to financial stability and failing to respond can lead to significant negative consequences.

According to this approach, when asset prices are rising very rapidly and credit expansion is excessive, the central bank should cautiously tighten the key interest rate or other monetary policy instruments. Such a policy aims to “cool down” an overheating economy, limit excessive risk-taking, and prevent the formation of large financial bubbles.

[16] Financial innovations refer to new products, technologies, and business models (for example, mobile banking and fintech). Financial inclusion refers to the broader access of individuals and small businesses to financial services.

[17] “Leaning against the wind” is an economic and monetary policy term that describes a central bank’s decision to tighten or ease monetary policy in response to sharp increases in asset prices or credit growth – even if inflation and output appear stable. When a central bank “leans against the wind,” it may raise interest rates (tighten policy) to curb excessive credit growth, asset price bubbles, or financial imbalances, even when inflation is below the target.

Moreover, this group of economists favors the active use of macroprudential policy tools to address asset price bubbles. Using these instruments allows targeted restriction of risk sources within the financial system, enabling the central bank to achieve its objectives without causing broad negative effects on the entire economy through interest rate adjustments.

Overall, monetary policy should aim not only to maintain low and stable inflation but also to support financial stability. A central bank may tighten its interest rate policy to prevent financial risks, even if this means allowing a slight deviation from the inflation target. This reflects a strategy of prioritizing long-term financial stability over short-term economic growth.

While monetary policy is the main tool for controlling inflation and managing the economic cycle, and macroprudential policy is the key instrument for preventing systemic risks in the financial sector, both policies play an equally important role in maintaining a stable financial environment. Experience from the post-global financial crisis period shows that meaningful results can be achieved only when monetary and macroprudential policies complement each other.

To keep the financial system safe, continuous supervision, responsible lending practices, and strong regulatory tools and measures are essential. An effective policy framework requires an integrated approach – combining inflation-focused monetary policy with active macroprudential oversight, robust microprudential regulation, crisis-management mechanisms, and institutional arrangements that support coordination across authorities.

Macroprudential policy not only helps identify and mitigate risks within the financial system in advance but also plays a key role in improving the effectiveness of monetary policy.

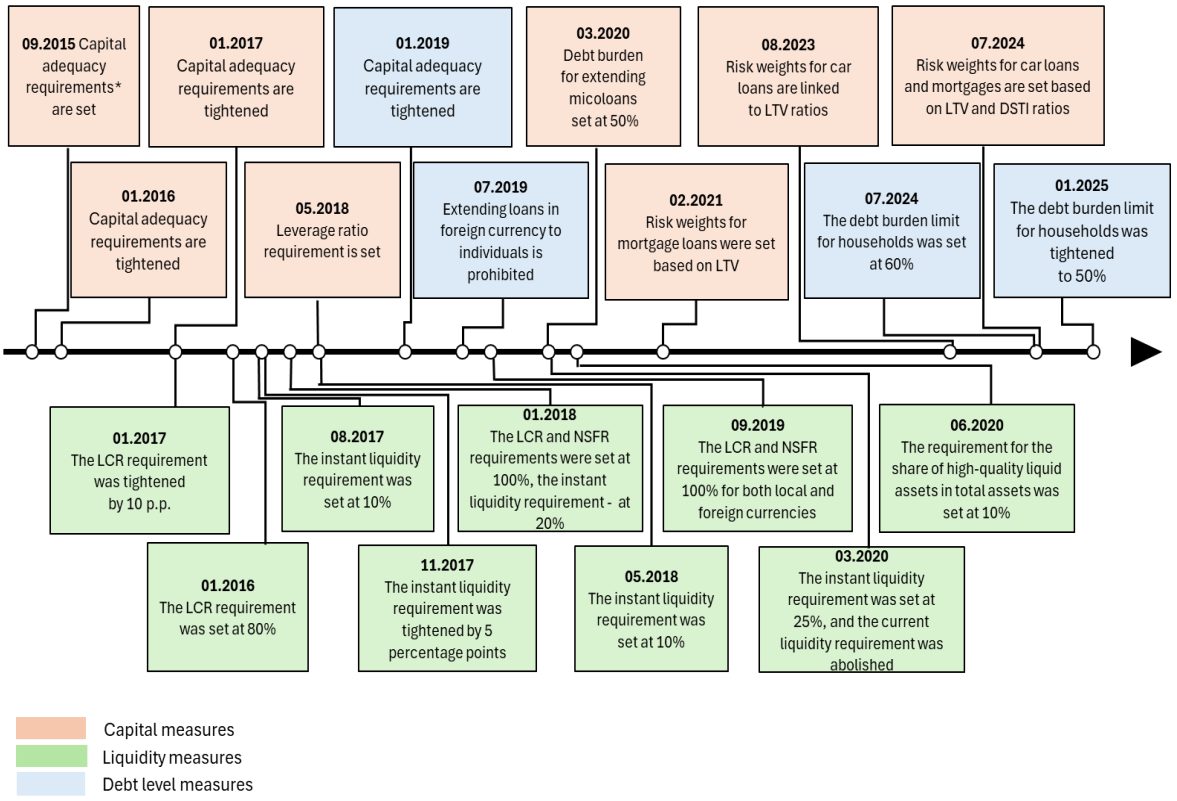
In particular, if macroprudential oversight is not well established, tightening monetary conditions may fail to curb rapid credit growth. When lending standards are not sufficiently enforced, the effectiveness of interest-rate tools diminishes.

Moreover, if systemic risks are not adequately addressed and public or household debt levels are elevated, the central bank may face constraints in using interest-rate instruments when inflationary pressures emerge. In such circumstances, raising interest rates to bring down inflation could heighten default risks across the economy.

Therefore, effective macroprudential supervision not only strengthens the financial system’s resilience to unexpected shocks but also enhances the transmission of monetary policy. Central banks must continuously monitor both price stability and financial stability indicators, maintain a broad set of policy tools, and be prepared to act with targeted macroprudential measures before emerging risks turn systemic.

In Uzbekistan, systemic risks that could negatively affect the country’s financial stability are continuously assessed, and corresponding policy responses are implemented. As the financial sector expands and credit volumes rise sharply, the scope of potential systemic risks in the economy is also increasing. In response, macroprudential policy measures aimed at mitigating these risks are being progressively strengthened and refined (Figure 1).

Figure 1. Key changes in macroprudential policy instruments applied in Uzbekistan *(as of January 1, 2025)*



Source: CBU

*Note: *Starting from 1 September 2015, the minimum capital adequacy requirements were initially set at 10% for regulatory capital, 7.5% for Tier I capital, and 6% for primary Tier I capital.*

Detailed information on the measures to prevent systemic risks and the rationale for their application can be found in the Central Bank's Financial Stability Reviews.[18]

[18] https://cbu.uz/uz/financial-stability/report/

Appendix 7

The role of the monetary policy stance in effectively controlling inflation

When inflationary pressures emerge, the central bank may sometimes wait for additional data to accumulate or delay tightening monetary conditions due to uncertainties surrounding the persistence of the shock. In such cases, balancing the need to reduce the risk of policy mistakes under high uncertainty with the need to respond promptly to inflationary pressures can naturally slow the decision-making process. Although in the short term this cautious approach may appear reasonable, in the medium term it can lead to negative consequences: elevated price pressures may become embedded in inflation expectations, increasing the persistence of inflation. As a result, confidence in the central bank's monetary policy could weaken, ultimately requiring even more forceful measures to restore price stability.

To analyze the effects of delays in monetary policy, a quarterly projection model is used to examine the economic impact of 1 percent inflation[19] and demand shocks under both active and delayed monetary policy scenarios.

Simulation conditions:

- ***Active monetary policy:*** *The monetary policy is tightened immediately when the shock occurs, with an increase in the policy rate, in line with the inflation-targeting mandate. This approach aims to anchor inflation expectations and stabilize the economy.*
- ***Delayed monetary policy:*** *A neutral policy stance is maintained for the first two quarters, after which tightening measures are gradually applied.*

Under an active monetary policy, the central bank's swift response quickly contains the effects of the shock, returning the economy to balance with relatively minor fluctuations.

When monetary tightening is delayed, the initial phase allows inflationary pressures to build, which later requires sharper corrective measures and increases the overall economic volatility.

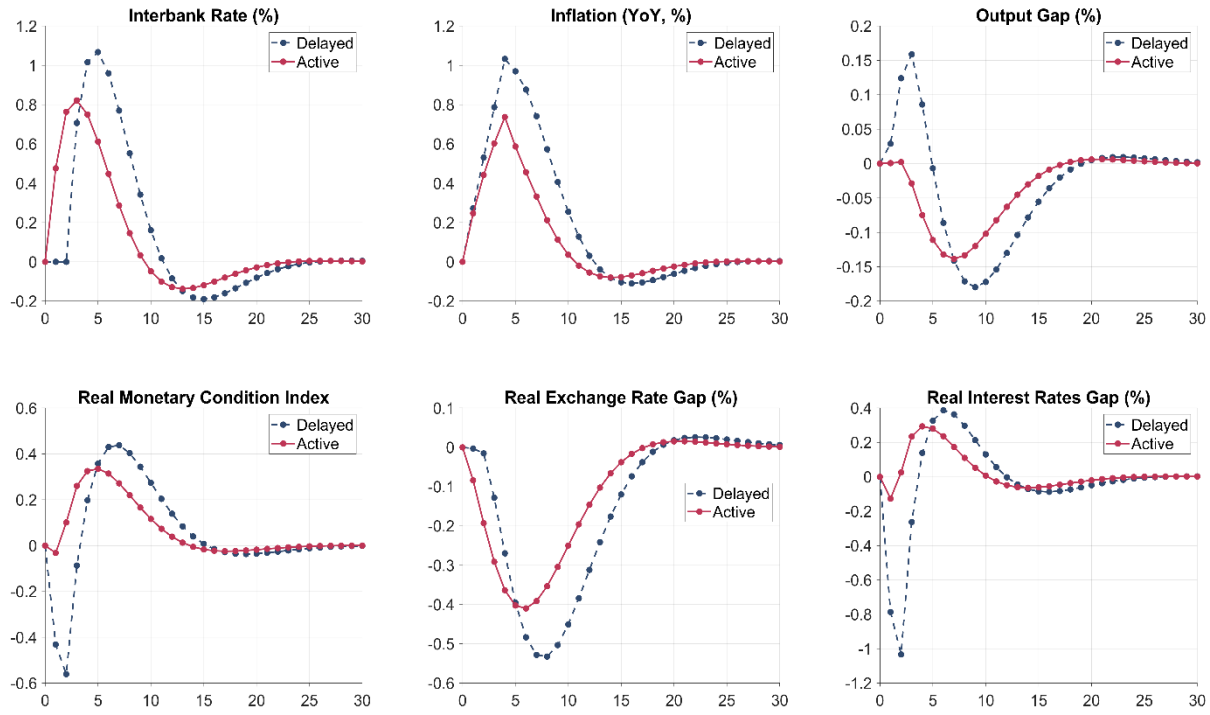
Impact of an inflation shock on the economy. As a result of the observed shock, inflation rises above its initial level in the first quarters. By the end of the four quarters following the shock, under an active monetary policy, inflation is 0.75 percentage points above baseline, while under a delayed monetary policy, it is 1.05 percentage points above baseline. Inflation expectations evolve differently under the two scenarios. The central bank's delayed actions weaken the signals of tightening, which amplifies secondary effects on inflation and causes the inflationary process to persist for a longer period.

Interest rate channel. Under the delayed policy scenario, the interest rate channel is almost inactive during the first two quarters: the interbank rate changes very little, leaving the cost of financial resources unchanged and allowing aggregate demand pressures to persist. In contrast, under an active monetary policy, the policy rate is increased by 0.5 percentage points in the first quarter and gradually raised to 0.8 percentage points by the end of the year, which restrains spending and stabilizes aggregate demand.

[19] Inflation shock – a shock that directly affects the dynamics of inflation as a result of changes in supply factors.

Under the delayed monetary policy scenario, high inflation combined with an unchanged nominal interest rate results in a persistently negative real interest rate differential during the initial quarters. In contrast, under an active monetary policy, the real interest rate differential is tightening, taking positive values. The real interest rate differential gradually rises under active policy, consistently restraining demand, whereas delayed policy requires a sharp increase in the policy rate later to moderate the accumulated inflationary pressures.

Figure 1. Impulse response functions of selected macroeconomic indicators under active and delayed monetary policy in the event of an inflation shock.



Source: CBU calculations

Within the two analyzed scenarios, the divergence in the real exchange rate further amplifies the differences in monetary conditions. Specifically, under an active monetary policy, relatively higher interest rates, coupled with stronger capital inflows, lead to an appreciation of the national currency, resulting in a year-end real exchange rate differential of - 0.3 percentage points. In the delayed policy scenario, the real exchange rate differential develops somewhat later but more strongly due to higher inflation, reaching - 0.4 percentage points by year-end.

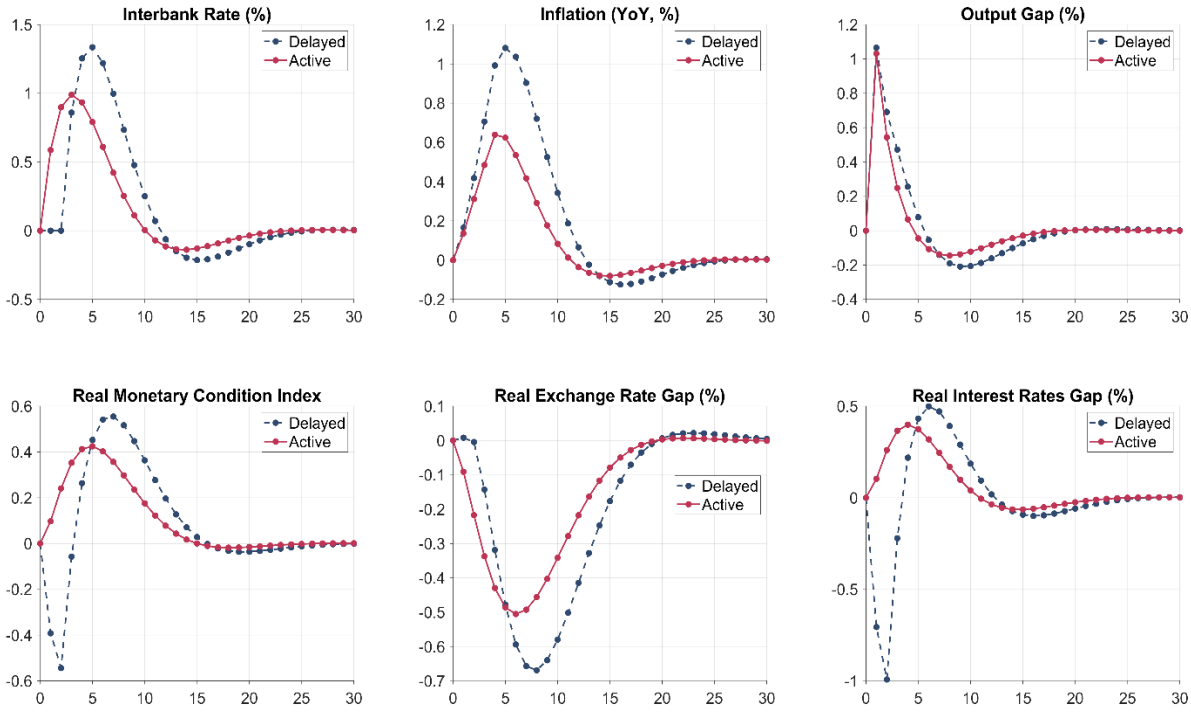
The real monetary conditions index reflects the overall tightness or accommodative stance of monetary policy based on the developments in the real interest rate and the real exchange rate differential. Under an active monetary policy, the index tightens faster than its neutral level, rising by 0.4 percentage points by the fourth quarter, signaling the central bank's policy aimed at curbing inflation.

Under the delayed monetary policy scenario, due to negative real interest rate and real exchange rate differentials, the real monetary conditions index remains negative during the first three quarters, exerting an expansionary effect on aggregate demand.

In contrast, under an active policy, monetary conditions tighten in a timely manner, leading to a short-term and moderate decline in the GDP gap. The central bank's swift actions curb the impact of the shock, bringing the economy back to balance with relatively smaller fluctuations. In this process, higher interest rates slow down investment and consumption growth.

In the delayed scenario, expansionary monetary conditions push aggregate demand above the neutral level, resulting in a positive GDP gap by the end of the year. In the initial stage, the delayed measures allow demand pressures to build up, which later requires sharper adjustments and increases the overall economic fluctuations.

Figure 2. Impulse response functions of selected macroeconomic indicators under active and delayed monetary policy in the event of a demand shock



Source: CBU calculations

Impact of a demand shock on the economy. As a result of a demand shock, the GDP gap increases by 1 percentage point in the initial quarter under both active and delayed monetary policy scenarios. Because monetary policy measures affect aggregate demand with a certain lag, different policy actions correspond to nearly the same GDP gap in the initial quarter. In subsequent periods, however, the evolution of aggregate demand differs under the two scenarios. The central bank's delayed actions weaken the signals of policy tightness, which amplifies the increase in the GDP gap. Consequently, the positive GDP gap persists for a relatively longer period, but the tightening phase of the delayed monetary policy eventually leads to a deeper decline in the GDP gap.

In the case of delayed monetary policy, the interest rate channel keeps the cost of financial resources stable during the first two quarters, sustaining demand pressures. From the third quarter onward, the central bank sharply raises the policy rate by 0.8 percentage points, and by 1.4 percentage points by year-end. Under an active monetary policy, the interest rate increases by 0.6 percentage points in the first quarter and is gradually raised up to 1 percentage point over the next three quarters.

During the analysis period, the real exchange rate deviation in both scenarios is negative due to high inflation, indicating that in real terms the national currency appreciates relative to its neutral level.

The real monetary policy conditions index remains tight relative to its neutral level throughout the simulation period under an active monetary policy, rising by 0.4 percentage points in the fourth quarter and ensuring conditions that restrain inflationary pressures. Under a delayed policy, the initial quarters show a negative real interest rate gap due to rising inflation and the nominal rate remaining at its neutral level. This results in overall monetary conditions being in an accommodative phase, boosting aggregate demand. To counter the accumulated demand and inflationary pressures under the delayed policy scenario, a stronger tightening of monetary conditions becomes necessary. Consequently, monetary conditions, initially accommodative during the first three quarters, shift sharply into a tightening phase from the year-end, amplifying economic fluctuations.

According to the analysis, delaying monetary policy measures by two quarters in response to a 1 percent inflation shock increases inflation by 3 percentage points and the GDP gap by 0.3 percentage points over three years. Similarly, delaying monetary policy measures in response to a 1 percent demand shock raises inflation by 3.6 percentage points and the GDP gap by 0.4 percentage points over the same period.

This analysis shows that under any demand or supply shocks that push up inflation, the implementation of an active monetary policy is crucial for ensuring price stability and achieving moderate economic growth in the medium term. At the same time, such an approach strengthens economic agents' confidence in the central bank's policy and helps effectively anchor inflation expectations.

GLOSSARY

Administratively regulated prices	are prices for certain types of products (goods, services), which are not determined by market mechanisms (supply and demand), but rather are administratively regulated through government agencies, organizations and enterprises.
Anchoring inflation expectations	is linking inflation expectations of the population and business entities for the next medium-term period to a certain quantitative indicator (inflation target).
Balance of payments	is a statistical report which reflects all economic transactions between residents and non-residents for a certain period of time.
Consumer demand	is a part of the aggregate demand related to consumer goods and services in the economy.
Consumer Price Index (CPI)	is an indicator of the change in the general level of prices for goods and services purchased by the population for consumption. The CPI is calculated as the ratio of the sum of prices of these goods and services in the current period to the prices of the previous (base) period.
Core inflation	is inflation calculated without taking into account changes in the prices of certain goods and services (fruits and vegetables, fuel, some types of passenger transport, communication services, housing and communal services, etc.) which are under the influence of seasonal and administrative factors.
Cross-border money transfer	is the transfer of funds to or from the country through international money transfer systems.
Currency intervention of the Central Bank	is the participation of the Central Bank in the foreign exchange market by selling and purchasing foreign currency in order to sterilize the excess liquidity in the banking system caused by the purchase of monetary gold by the Central Bank, as well as to prevent sharp fluctuations in the exchange rate of the national currency.
Current account	is a section of the balance of payments of the country which reflects the flow of goods, services, primary and secondary income (wages of employees, return on investments and others) between residents and non-residents.
Deposit auctions	are operations of the Central Bank to attract funds from the correspondent account of commercial banks into deposits at auction interest rates (usually for one or two weeks) to manage the overall liquidity of the banking system and to temporarily withdraw excess liquidity from the banking system in conditions of structural liquidity surplus.
Economic cycle	is a natural form of economic development, in which the increase in production, employment, GDP growth is replaced by periods of recession.
Financial market	is a system of economic relations arising in the process of the exchange of economic resources.

Financial stability	is a state of the financial system, in which it is capable of effectively performing its functions of ensuring the redistribution of resources and managing financial risks, characterized by the absence of excessive volatility in the financial market (and its segments), continuity of settlements, as well as the ability to eliminate the effects of negative shocks and recover from stress.
Inflation expectations	are assumptions of the population and economic entities regarding the inflation rate for the nearest period. Based on inflation expectations, producers and consumers, sellers and buyers determine their future investment, credit, financial and pricing policies, estimate income, expenditure and expected profits.
Financial system	is a totality of financial organizations and financial markets, providing the formation and use of funds from the state, organizations, and the population through various financial instruments. In this system, financial institutions (markets and financial organizations) redistribute limited financial resources from one economic entity to another.
Gross domestic product deflator	is a change in the overall level of prices for goods and services produced and consumed in a country over a period of time.
Inflation inertia	is a tendency of inflation to return slowly to its long-term (equilibrium) level after the shock, which deviated it from its long-term level.
Inflation target	is a pre-announced target of inflation that provides the basis for long-term economic growth and price stability.
Inflation targeting regime	is the monetary policy regime, in which the Central Bank declares a medium-term target for the inflation rate and focuses all its efforts on bringing current inflation to the target by applying monetary instruments.
Interbank money market	is a system of organizing and conducting short-term (usually up to one year) exchange trades for placing and raising funds in the national and foreign currencies.
Interest rate corridor	is a system of bringing short-term interest rates in the money market closer to the Central Bank’s policy rate (target interest rate); the upper bound of the interest rate corridor is the Central Bank's lending rate to commercial banks (usually the overnight rate), while the lower limit is the Central Bank's deposit rate for commercial banks.
Investment demand	is the demand of business entities for physical capital objects (cars, equipment) and services used to maintain or expand their activities. Investment demand is a part of the aggregate demand in the economy.
Liquidity of the banking system	is the balance of funds on correspondent accounts of commercial banks in national currency opened with the Central Bank of the Republic of Uzbekistan.
Machine learning	Machine learning is a branch of artificial intelligence (AI) and computer science that focuses on the use of data and algorithms to imitate the way that humans learn, gradually improving its accuracy. This method has the advantage of providing a relatively accurate forecast using a large database.

Macroprudential policy	is a set of proactive measures aimed at minimizing systemic risk in the financial sector or specific segments thereof.
Monetary policy	is a part of macroeconomic policy conducted in order to ensure price stability in the domestic market. Monetary policy is implemented to maintain the volume of liquidity in the banking system, interest rates and other monetary indicators at a target level using monetary instruments.
Monetary factors of inflation	are inflationary factors that can be directly influenced by the Central Bank's monetary policy instruments in the medium term.
Open foreign currency position	is a quantitative inequality between foreign currency assets and foreign currency liabilities of a credit organization
Output gap (GDP gap)	is a difference between actual GDP and potential GDP. A positive GDP gap is referred to as an inflationary gap. This means that the growth rate of aggregate demand exceeds that of aggregate supply, which can cause inflationary pressure. In contrast, a negative GDP gap leading to deflation is called a recessionary gap.
Phillips curve	is a curve representing the relationship between the unemployment rate and inflation. The Phillips curve states that inflation and unemployment have an inverse relationship. Higher inflation is associated with lower unemployment and vice versa.
Policy rate	is the interest rate that determines the borrowing interest rate for commercial banks and the cost of loans for borrowers; changes in the policy rate affect interest rates in the interbank money market.
Recession	is a sharp decrease in production in the economy or a significant slowdown in economic growth.
REPO operations	are transactions of selling government securities by commercial banks to the Central Bank under a repurchase agreement for short-term borrowing or transactions of selling securities to commercial banks for the purpose of managing the Central Bank's money supply and bank reserves *(with the government securities serving as collateral).*
Reserve requirements of commercial banks	are funds deposited by commercial banks at the Central Bank to comply with the mandatory reserve requirements of the Central Bank. The minimum level of mandatory reserves maintained the Central Bank is determined by the regulations of the Central Bank, taking into account the objectives of monetary policy, the type and term of deposits and other liabilities of banks. Mandatory reserves for each category of funds are equal for all banks.
Stagflation	is high inflation coupled with low economic growth.
Systemic risk	unlike the risks associated with the single financial market or group of participants, it is the risk of collapse of the entire financial system or financial market activity.
Time lag	is a measure of the impact of one of economic event on another dependent economic event with a specific time lag; the time interval between the occurrence of two or more related events

Transmission channels of the monetary policy	are the channels through which monetary policy decisions influence price dynamics and the economy. The process of gradual transmission of the policy rate change and a signalling of its future trajectory from financial market segments to the real economy, and eventually to the inflation rate. Interest rate changes are transmitted to the economy through the following main channels: interest rate, credit, currency, asset prices and expectations.
Trend	is the main tendency of the change in an indicator. Trends can be represented by various equations – linear, logarithmic, power, etc. The actual type of trend is determined by statistical methods or by smoothing the time series of its functional model.
Trimmed inflation	is inflation calculated by excluding the 10 groups of goods (services) with the highest and lowest price increases respectively.
Yield curve	in economics and finance, is a curve showing how interest rates (yields) on a particular debt instrument (such as government securities) change over time. The yield curve is considered an important economic indicator and plays a central role in communicating monetary policy decisions to the economy. It is a source of information expressing investors' expectations regarding macroeconomic indicators such as future interest rates, economic growth and inflation.