CENTRAL BANK OF THE REPUBLIC OF UZBEKISTAN

MONETARY POLICY REVIEW

Quarter IV, 2021

Tashkent 2022

CONTENTS

INTRODUCTION

At the meeting on January 20, 2022, the policy rate of the Central bank was left **unchanged** at the level of **14 percent per annum**, in order to achieve inflation forecasts for the current year, to maintain monetary conditions that slow prices and support savings, at the background of high economic growth dynamics.

Inflation and inflation expectations. At the end of 2021, inflation was at the intermediate target level of **10 percent**.

The main factors that created the inflationary environment over the past year were a significant increase in food and energy prices. The rise in prices is explained, on the one hand, by global inflation trends and, on the other hand, by reasons related to competition and supply in the domestic market.

The **core inflation** rate also fell **to 8.8 percent** by the end of 2021, the lowest level in the last five years.

According to a survey conducted in December last year, **inflation expectations** of the households and entrepreneurs **for the next 12 months** shifted to a downward trend after the upward trend in September-November and amounted to **15.7** and **14.9** percent, respectively.

At the same time, respondents cited rising gasoline prices, transportation costs, rising prices for basic foodstuffs and imported goods as the main factors of inflation expectations.

Economic activity and aggregate demand. Overall, last year was a year of economic recovery after a sharp decline in 2020. According to preliminary data, GDP grew **by 7.4 percent** in real terms in 2021.

Fiscal expenditures directed to the economy and loans from commercial banks were the main factors supporting economic and investment activity.

While loans issued to the economy by commercial banks last year increased **by 31 percent** compared to 2020, the loan repayment rate improved significantly **to 71 percent**. Loans to individuals also grew **by 42 percent,** serving to support the household demand for consumer goods and mortgages.

According to estimates, the impact of high fiscal stimulus in 2021 will continue in 2022, and from the second half of the year, economic growth rate will approach its long-term trend, namely the potential growth rate.

External economic conditions. The year 2021 was shaped by the acceleration of global inflation as a result of rising food and fuel prices and the tightening of monetary conditions in many developing countries in response. At the same time, inflationary processes, which were initially recognized as temporary, suggest that at the end of the year, against the background of uncertainties and pandemic risks, prices may be under pressure for a longer period of time.

Although there were no significant fluctuations in the currencies of major trading partners (except Turkey) over the past year, inflation in them has been sharp.

At the end of 2021, the depreciation of the sum was **3.4 percent,** the lowest level in three years.

In this regard, the increase in export revenues and cross-border remittances **by 34 percent** in 2021, respectively, was a factor supporting the supply of foreign exchange in the domestic FX market and contributed to a **1.6 times** increase in total supply in the market.

Monetary conditions. By the end of 2021, the situation in the money market was formed under relatively tight conditions, with **“Uzonia”** and **“Uzwia”** indices averaging around **13 percent**. During the year, the dynamics of interest rates in the money market reflected the almost **doubling** of interbank operations and a sharp increase in the activity of monetary instruments.

In general, the activation of monetary operations in liquidity regulation over the past year, in turn, has led to a significant increase in costs and liabilities of the Central Bank.

The weighted average interest rates offered by banks on **term deposits** in the national currency in December amounted to **20.2 percent** for individuals and **15.1 percent** for legal entities, which created a positive difference from inflation expectations.

This, in turn, contributed to a **1.5 times** increase in the total term deposits in local currency last year, including **1.7 times** for individuals’ deposits.

In the last months of 2021, interest rates on loans in the national currency was also balanced, within the corridor **of 20-22 percent,** which has been observed since the beginning of the year.

In particular, in December, the weighted average interest rates on short-term loans in the national currency amounted to **21.2 percent** and **20.5 percent** on long-term loans.

Forecast and risks. According to the baseline scenario of macroeconomic development, this year the Central Bank intends to maintain relatively tight monetary conditions.

In the context of ongoing global inflation, rising prices for raw materials and energy resources in foreign markets, the pandemic situation, the risks associated with the slowdown in global economic growth suggest that the inflation rate will be in the range of **8-9 percent** by the end of this year.

It is also projected that real GDP growth in 2022 will be around **5.5-6.5 percent.** At the same time, the past fiscal stimulus directed to the economy in 2020-2021 will be one of the main factors supporting economic activity in the first half of 2022.

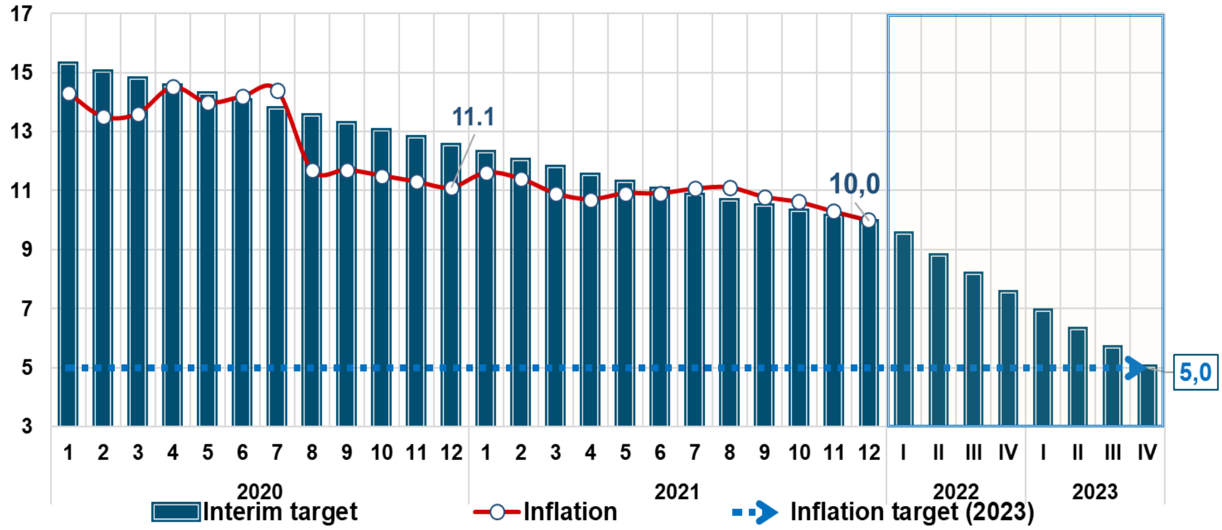
The current monetary conditions are calculated **in accordance** with the forecasts of macroeconomic indicators, and in the future, as the inflation forecast decreases, there may be opportunities **to cut nominal interest rates,** keeping real interest rates unchanged.

I. INFLATION RATE AND FORECASTS

1.1. Analysis of inflation dynamics and its components

In December 2021, the consumer price index increased by **1.3 percent** *(December 2020 - 1.6%)*. Overall, the annual inflation rate slowed to **1.1 percentage points** from the corresponding period of 2020 and at the end of the year it was formed within the target set for 2021 at **10 percent** *(Figure 1.1).*

Figure 1.1. Inflation target and its trajectory *(annual percentage)*



Source: *State Statistics Committee data and Central Bank forecasts*

Last year, the growth of prices for non-food products and services slowed to **7.8** and **7.7 percent,** respectively, that was one of the main factors contributing to the decline in annual inflation.

Although the annual indicators of food prices were formed in a declining dynamics *(15.3% in December 2020, 13% in December 2021),* they served as a major driver of headline inflation *(5.5 percentage points).*

In Q4 2021, the quarterly growth of food products and services was lower than in the corresponding period of 2020, while in non-food products, on the contrary, the increase of prices accelerated slightly.

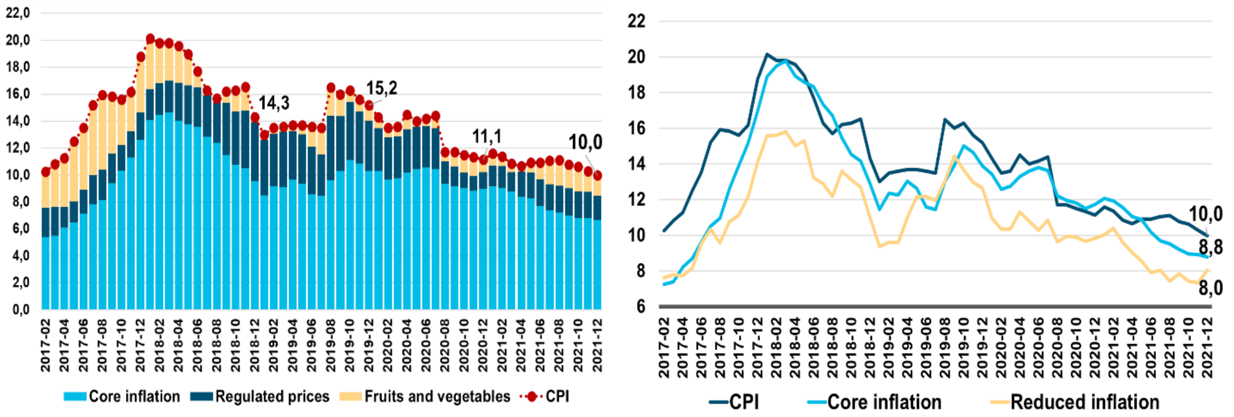
This was due to the significant rise in gasoline prices in the domestic market, moreover in the context of logistics problems, the increase in production and delivery costs had a rising effect on the prices of most non-food products until the end of the year.

Core inflation and reduced inflation

The central bank's core inflation rate had a declining trend during the year, reaching **8.8 percent,** the lowest level in five years. At the same time, the contribution of core inflation to overall inflation slowed **to 6.7 percentage points** *(Figure 1.2).*

It should be noted that the slowdown in core inflation on an annualized basis can be explained by the fact that **the fundamental trend** in prices of most of its food and non-food products, as well as services, was declining.

Figure 1.2. Dynamics of core and reduced inflation, *annual*



Source: *Central Bank calculations based on data from the State Statistics Committee*

Also, the reduced inflation rate in December was slightly faster than in previous months, at **8 percent** on an annualized basis. The gap between overall and reduced inflation has narrowed **to 2 percentage points**, indicating that the volatility of consumer prices is gradually declining.

Food inflation

In Q4 2021, the increase in food prices amounted to **6 percent.**

Increase in the prices for fuel and transportation in the world market, climate changes, lower-than-expected crops, rising food prices, labor shortages and pandemic-related delays in deliveries and production due to increasing demand led to high price growth in world markets, resulting in the formation of **maximum level of the decade**.

At the same time, in the context of vaccination, the gradual easing of quarantine measures, the recovery of economies, the gradual increase in activity in the tourism and services sectors began to put high pressure on prices from the demand side.

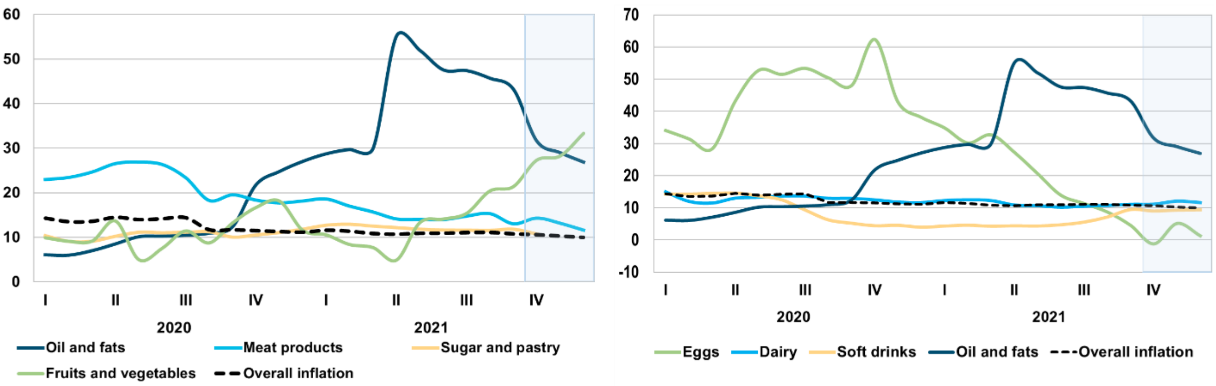
The large-scale impact of price increases, especially in developing countries, is explained by a higher share of food in the consumer basket of the population of developing countries.

In particular, according to the Food and Agriculture Organization of the United Nations (FAO), in 2021 food prices increased by a total **of 23.1 percent.** During the year, vegetable oils rose in price **by 36 percent,** sugar by **33.6 percent,** cereals **by 20.8 percent,** and meat and dairy products **by 17.4 percent.**

In turn, in the context of integration with the world market, these changes have a certain impact on the price situation in the domestic market.

The **stable formation** of meat prices compared to previous periods due to a significant increase in imports from Belarus in this quarter had a positive impact on the slowdown in consumer price growth.

Figure 1.3. Changes in food prices *(annual percentage)*



Source: *Central Bank calculations based on data from the State Statistics Committee*

At the same time, the rise in prices of wheat flour, macaroni, chicken meat, milk, eggs, sugar, fruits, including apples, grapes, vegetables and soft drinks above all put upward pressure on the overall inflation rate.

Meanwhile, there was the price **decrease** in **rice, lemons, bananas** and **carrots**.

It should be noted that one of the main factors of the rise in food prices in the IV quarter was an increase in prices for **fruits and vegetables** higher than in previous periods. In particular, while food inflation in October-December amounted to **6 percent,** the increase in food prices, excluding fruits and vegetables, was **2.3 percentage points** lower.

In 2021, the volume of the grain crops below the forecast due to drought in major trading partner countries, as well as restrictions on grain exports from these countries, served as a factor putting **upward pressure** on **wheat** prices.

Against the background of climate change, the main exporting country, Brazil, saw a decline in production due to drought and cold weather, which led to an increase in **sugar** prices in the world market.

It is expected that the recovery of the world economy will stimulate consumption growth. At the same time, the prices for **sugar** and **vegetable oils** are formed on the basis of world oil prices. If energy prices continue to rise, increased demand for ethanol may lead to a decline in sugar production in Brazil, and the extraction of biodiesel from soy may result in higher prices for other types of vegetable oils *(soy, palm, sunflower, rapeseed).*

In the context of declining fodder stocks, the reduction in the supply of barley, wheat and other fodder, as well as the introduction of bans on the export of large and small cattle and potatoes by Kazakhstan may have an impact on **meat** and **potato** prices in the domestic market.

The increase in **vegetable** prices can be explained mainly by the fact that they are exported in large quantities to foreign markets and domestic supply is limited. In the future, the prices of these products will be formed based on consumer demand in domestic markets and the supply of entrepreneurs, as well as the price situation in neighboring countries.

Non-food inflation

In October-December 2021, the growth of non-food prices amounted to **2.8 percent**, and the contribution of this component to inflation was **1.0 percentage point.**

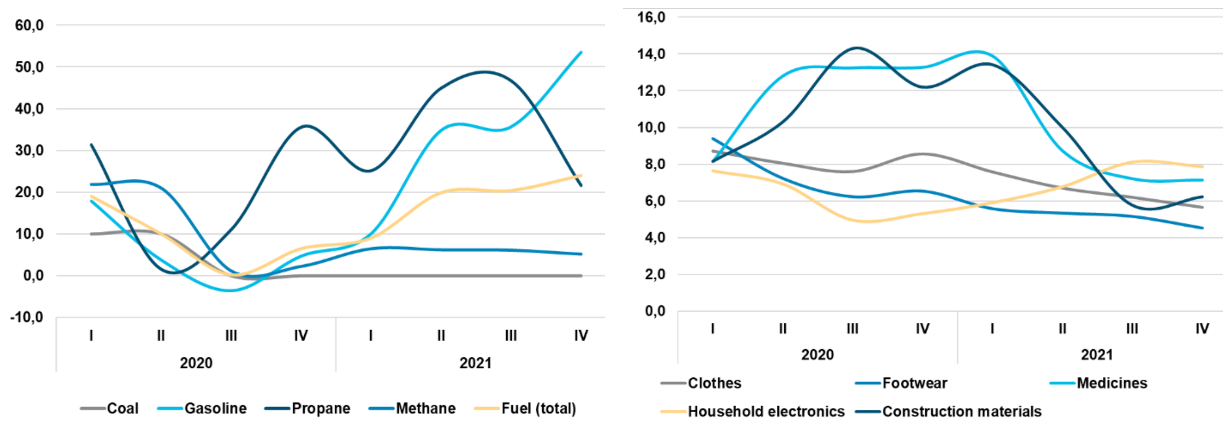
At the same time, the price increase in fuel for vehicles during the quarter amounted **to 9.8 percent**, and its contribution to inflation was **0.3 percentage points.** Herewith, the growth was mainly observed in gasoline prices, amounting **to 23.3 percent** for the last three months, while methane prices remained almost unchanged *(**0.2%** increase).* Propane fell by **9.8 percent** due to seasonality.

Brent crude oil rose an average **of 12 percent** in the world market during this period, leading to an increase in fuel prices in the domestic market.

In particular, given that the main part of gasoline AI-92 and higher is imported as finished product, it should be noted that the price of gasoline of these brands in the domestic market has risen significantly.

At the same time, the main consumer demand began to form for cheaper domestic brand AI-80 gasoline, that served to increase in price for this brand as well.

Figure 1.4. Changes in fuel prices *(annual percentage)*



Source: *Central Bank calculations based on data from the State Statistics Committee*

Although the World Container Index, an indicator of global shipping costs, has fallen by an average **of 8 percent** in the IV quarter, demand for cargo containers remains high while supply is limited.

Consumer demand for warm clothes has been increasing due to delays in import of goods from abroad and the cooling of the weather. These cases contributed to a **2.8 percent** increase in the price of clothing and footwear *(upward contribution of **0.32 percentage points**).*

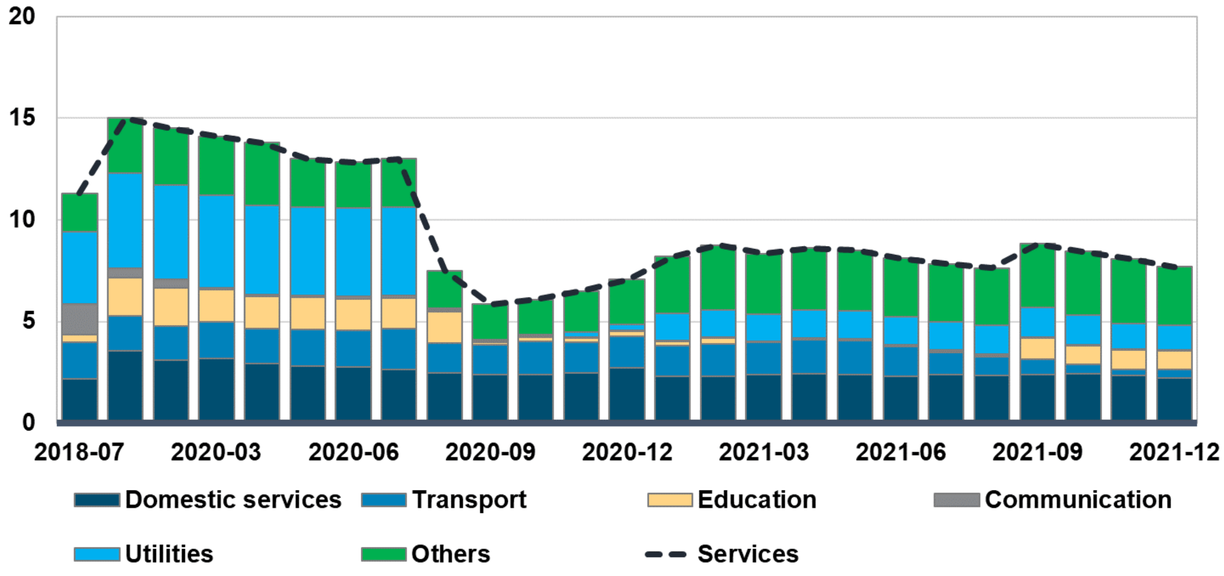
The negative effects of the shortage of raw materials for producers are also reflected in the prices of **construction materials (1.3%)** and **medicines (2.4%).**

In addition, **the lack of semiconductors** around the world and **supply delays** have led to an increase in the cost of electrical equipment by average **2.9 percent.**

Services inflation

During the period under observation, the growth in prices for services was **1.5 percent,** and the contribution of this component to inflation amounted to **0.3 percentage points.**

Figure 1.5. Change in services prices, *annual*



Source: *Central Bank calculations based on data from the State Statistics Committee*

At the same time, the growth was mainly observed in the delivery services *(5.6%),* its upward contribution amounted to **0.3 percentage points.**

Amid the increase in domestic prices for fuel, the price of passenger transportation services rose **by 2.6 percent** in the IV quarter.

Also, the rise in services prices in restaurants and cafes *(6.0%)* is directly related to the delayed impact of the raise in monthly wages in September and the increase in prices for some food products.

1.2. Inflation expectations of population and business entities

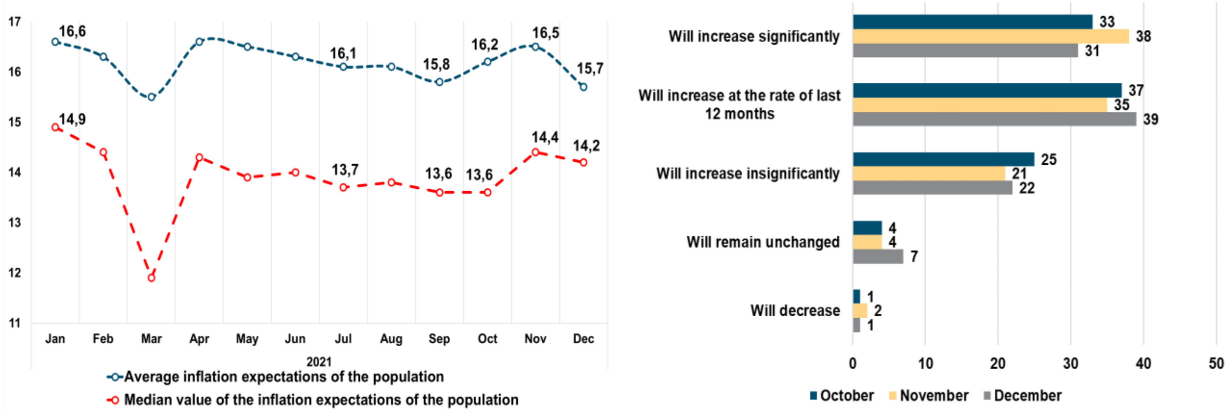
Inflation expectations of the population on price growth for the next 12 months in Q4 2021 witnessed a **changing dynamic**.

Having increased against the rising fuel prices in October, inflation expectations showed a declining trend in December. Inflation expectations[1] of the population for the next 12 months slowed to **15.7 percent** by December, while the median value[2] amounted to **14.2 percent** in the corresponding period *(Figure 1.6).*

[1] **Inflation expectations** are the ratio of the number of respondents who denoted a certain answer by different variants of inflation expectations to the total number of respondents (weighted average).

[2] The **median value** of inflation expectations is the value that divides the range of responses on future inflation by two.

Figure 1.6. Dynamics of inflation expectations of the population, *in percent*

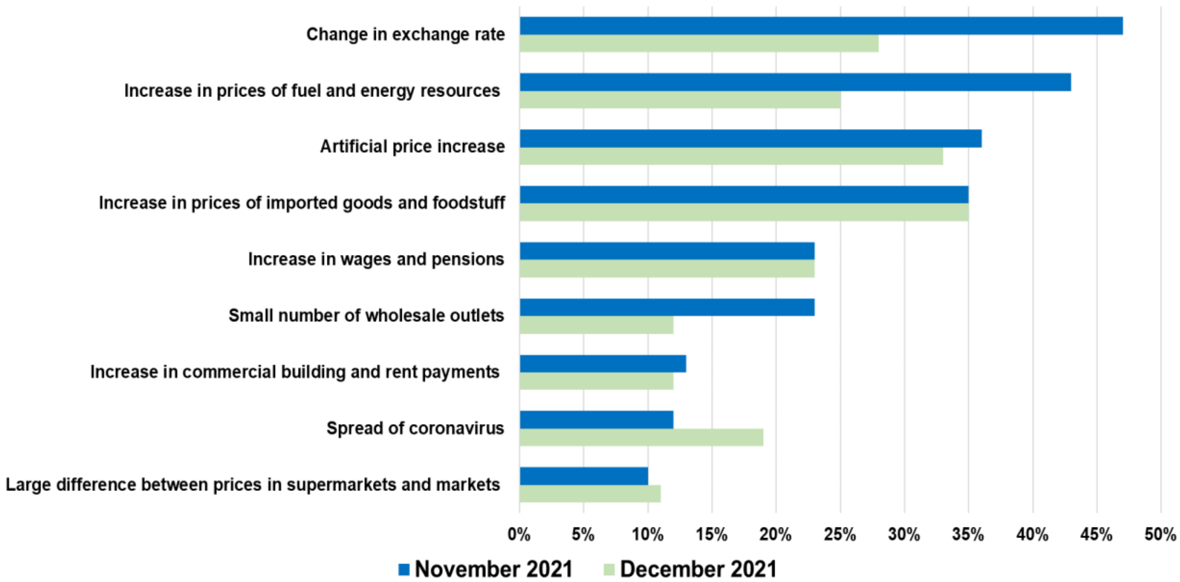


In October-December 2021, the proportion of respondents who denoted high price increases over the next 12 months declined, while at the end of the quarter, **39 percent** of respondents denoted prices would increase at the level of the previous 12 months over the following 12 months.

The population denoted **rising prices for imported goods and basic foodstuffs** *(35 percent)* as the main factor in future price increases *(Figure 1.7)*.

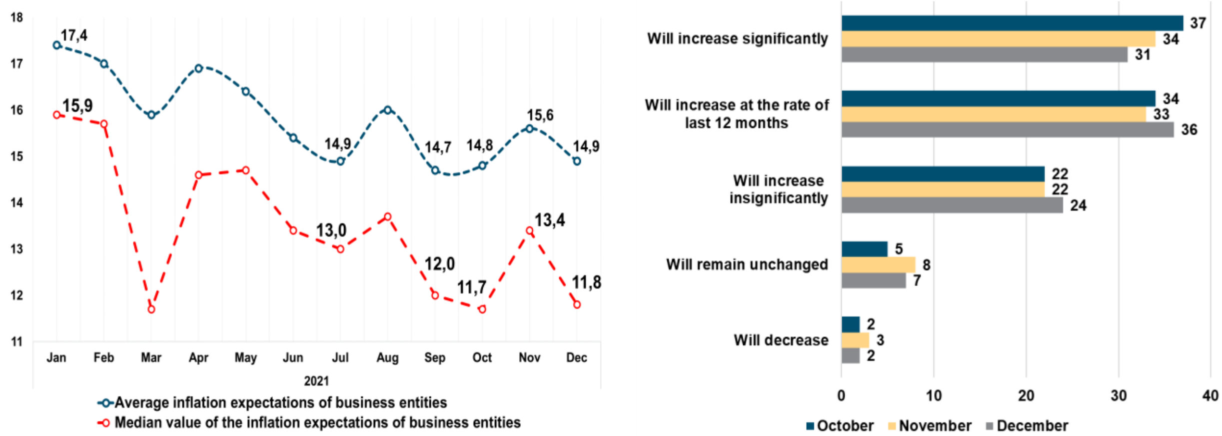
In addition, the share of the population expecting devaluation of the national currency *(28%),* increase in prices for fuel and transport *(25%)* and rise in housing and rent *(12%)* decreased by the end of the quarter. Emergence of new strains of coronavirus *(19%)* and differences between prices in supermarkets and markets *(11%)* put upward pressure on inflation expectations of the population.

Figure 1.7. Main factors of inflation expectations
(percentage of respondents)



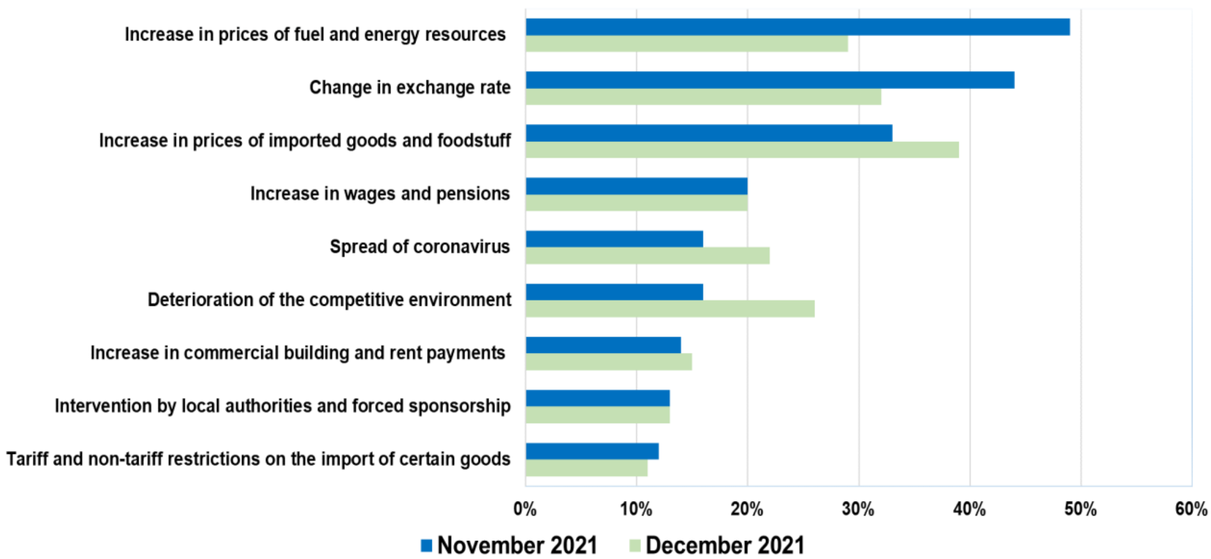
By the end of October-December 2021, the expectations of business entities for the next 12 months on price growth also showed volatile dynamics, approaching the value of the beginning of the quarter (14.9%) by December, and the median value formed around **11.8 percent** *(Figure 1.8).*

Figure 1.8. Dynamics of inflation expectations of business entities, *in percent*



As in the case of the population, in October-December 2021, the share of business entities that reported high price increases over the next 12 months decreased, while at the end of the quarter, **36 percent** of respondents denoted that over the next 12 months prices would rise at the level of the previous 12 months *(Figure 1.8).*

Figure 1.9. The main factors of inflation expectations
(share of respondents, in percent)



In the IV quarter of 2021, the share of business entities expecting a **rise in prices for imported raw materials and components** increased **from 33 percent to 39 percent** *(Figure 1.9)*.

Deterioration of the competitive environment in the economy *(from 14% to 26%)* and an increase in commercial building and rent payments *(from 14% to 15%)* were among the factors raising inflation expectations of businesses.

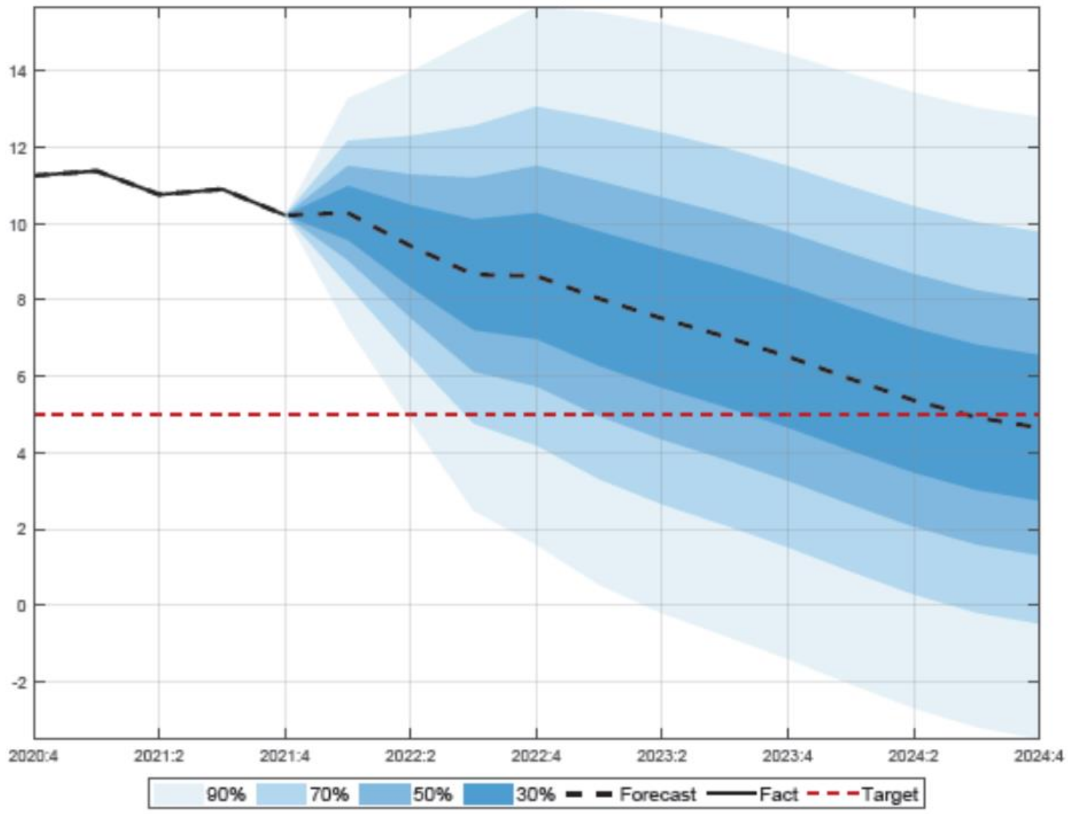
It should be noted that in the IV quarter of 2021 the share of the business entities noting the depreciation of the national currency *(from 44% to 32%)* and the rise in prices for fuel and transportation *(from 49% to 29%)* decreased.

1.3. Inflation forecast, risks and uncertainties

According to preliminary estimates, by the end of 2021, the annual inflation forecast is expected to amount to **8-9 percent**.

At the same time, "**relatively tight"** monetary policy that will be maintained until the end of 2022, the growth of the proportion of balance of loans to nominal GDP, measures to reduce the overall fiscal deficit **to 3 percent** of GDP, as well as **improving competition** in the consumer market and the government's efforts to reduce the non-monetary factors of inflation will help keep the annual inflation rate within the forecast.

Figure-1.10. Inflation forecast for 2022-2024 (*annual percentage***)**



Source: *Central bank*

At the same time, there are **risks and uncertainties** that will cause inflation to deviate from the forecast trajectory, and the pressure on consumer prices will continue this year.

These risks are mainly related to the **external environment**, and its change can result in a certain fluctuation of domestic prices.

Herewith, concerns such as the scale of the formation of aggregate demand and supply and its impact on inflation, the spread of the omicron variant, as well as **the subsequent evolution of the pandemic** are exacerbating existing uncertainties.

However, while large-scale vaccination, as well as the acceleration of booster dosing, serve to prevent the intensification of quarantine measures, while the slowdown in cross-border shipments in partner countries over time may lead to higher prices for some goods.

Given that in 2021 market regulation measures, export quotas and tariffs, pre-determination of selling prices, as well as supply chain disruptions in China have played an important role in price formation, rising producer and raw material prices and high shipping rates may also have an impact on inflation in 2022.

Given that high demand for basic foodstuffs by China in the second half of 2020 and the first half of 2021 has upset the balance of supply and demand in the world market, there may be further pressure on food prices in 2022 as demand **in the Chinese market** recovers.

Also, the high inflation rate in the major partner countries by the end of 2021, as well as the expectation that this situation will continue in 2022, raises concerns about maintaining pressure on domestic prices *(through import inflation).*

According to the international analysts, in the near future there will be a relative reduction **in external inflationary pressures.** This serves to stabilize the increasing effects of external factors on the prices of domestic consumer goods.

Box 1

Inflation rate in foreign countries and monetary policy measures aimed to reduce it

In 2021, in the context of unfavorable external conditions in a number of countries, high world food prices, supply chain disruptions, rising prices for transport, raw materials and energy, rapid recovery of domestic demand, high inflation expectations there was a relatively high inflation and since the beginning of 2021, **31 central banks** raised key rates.

Figure 1. Inflaton rate

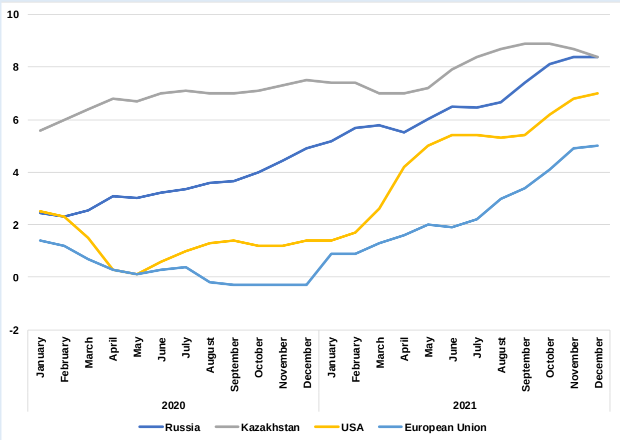
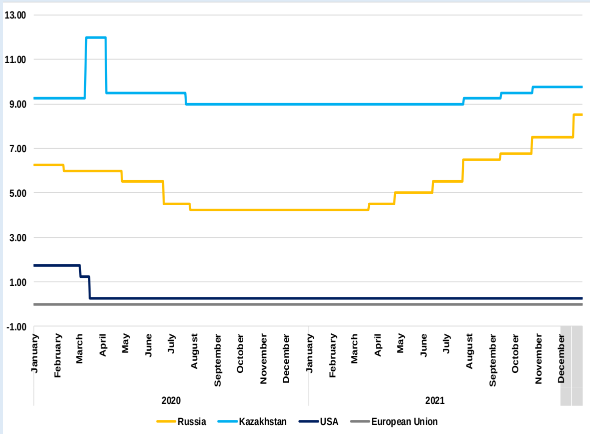


Figure 2. Key policy rate



European Union

Inflation in Europe peaked in December 2021 at a long-term high of **5 percent**. For almost the entire year, the inflation rate was formed above the target. The increase in inflation was mainly due to the sharp rise in energy prices, as in the above countries, and the faster recovery of demand than supply.

In addition, during the pandemic in Germany, a measure of VAT reduction *(standard VAT is from 19% to 16% and reduced VAT is from 7% to 5%)* was introduced to stimulate economic activity, including total consumption, while the base effects due to its expiration were one of the key factors driving inflation in 2021.

The Board of Governors of the European Central Bank kept the key policy rate unchanged in line with the monetary policy strategy to ensure that inflation falls below the target.

The Board of Governors will also actively implement all its monetary policy instruments in an appropriate manner and in any direction to ensure that inflation is stable at **the 2 percent target** level in the medium term.

It is currently unclear how long it will take for inflation to return to the target level. However, during 2022, price pressures are expected to ease due to the stabilization of energy prices, the normalization of the balance of consumer demand and supply, and difficulties in global supply chains.

Over time, a gradual return of the economy to full capacity and further improvement of the labor market will support faster wage growth. Long-term inflation expectations have stabilized since October, approaching two percent in recent months. These factors lead to inflation approaching the target level in the medium term.

USA

Inflation in the USA rose sharply in 2021, reaching its highest level in forty years in December - **7 percent**.

As a result of effective vaccination efforts and strong political support during the year, economic activity and employment indicators improved, and the sectors most affected by the pandemic began to recover.

However, during the summer months, a sharp rise of cases of coronavirus slowed economic recovery. The imbalance of supply and demand associated with the pandemic and economic recovery led to a significant increase in prices in some sectors.

During the year, the Board Committee decided to maintain the target range of the federal rate at 0 to 0.25 percent. It is expected that it will be advisable to maintain this target range in the future until labor market conditions reach a level that meets the Committee’s forecasts for full employment and inflation growth.

The Federal Reserve also reduced monthly purchases of assets as part of quantitative easing measures by the end of the year and decided to stop this practice completely by **the beginning of March** this year.

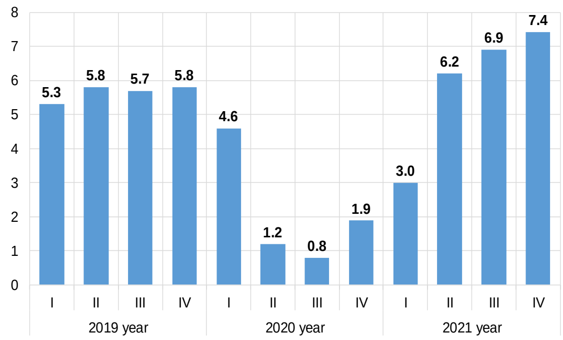
II. INTERNAL MACROECONOMIC CONDITIONS

2.1. Recovery of economic activity and key macroeconomic indicators

In the economy of our country in the IV quarter of 2021, the recovery phase of the economic cycle is coming to the end, and the economy is approaching its long-term growth trend (*Figure 2.1*).

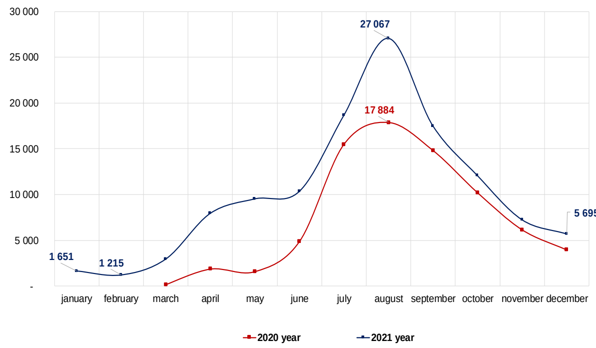
As a result of active vaccination processes, the pandemic situation stabilized significantly in the IV quarter of 2021, and the number of new cases decreased slightly (*Figure 2.2*).

Figure 2.1. Real GDP growth *(in %)*



Source: *State Statistics Committee*

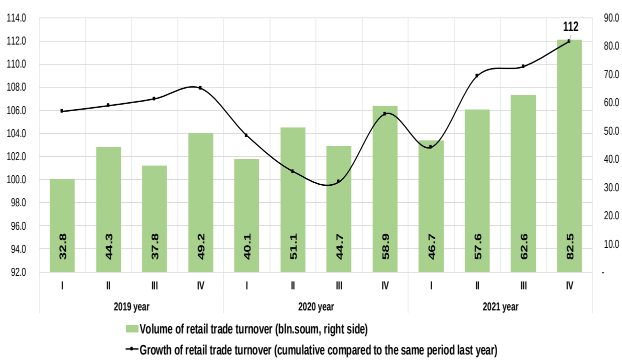
Figure 2.2. Number of new cases of coronavirus



Source: *The Ministry of Public Health*

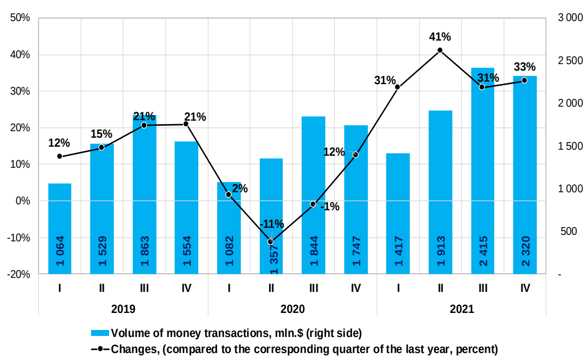
Economic activity was also reflected in the increase in revenues from trade and paid services, transactions through the banking system, remittances and exports, and in 2021 **the retail turnover** increased by **12 percent** compared to 2020 (*Figure 2.3*).

Figure 2.3. Volume of retail turnover



Source: *State Statistics Committee*

Figure 2.4. Cross-border remittances



Source: *Central bank*

In addition, **the volume of cross-border remittances** in the IV quarter of 2021 amounted to **2.3 bln**. **USD** *(an increase of 33% compared to the corresponding quarter of 2020),* **8.1 bln. dollars** from the beginning of the year *(an increase of 34% compared to 2020)* and was one of the factors supporting the consumption and investment activity of the population (*Figure 2.4*).

In 2021, real GDP growth amounted to **7.4 percent**. In particular, industrial production grew by **8.7 percent,** contributing **1.9 percent** to GDP growth (*Figures 2.5-2.6*).

At the same time, the real growth of market services in the economy increased by **19.2 percent**, which contributed **2.7 percent** to GDP growth. This high growth was due to the recovery of economic activity in 2021, the stabilization of the pandemic situation compared to 2020, and the low base effect.

Agriculture and construction contributed **1.9 percent** and **0.5 percent**, respectively, to GDP growth.

Figure 2.5. GDP growth

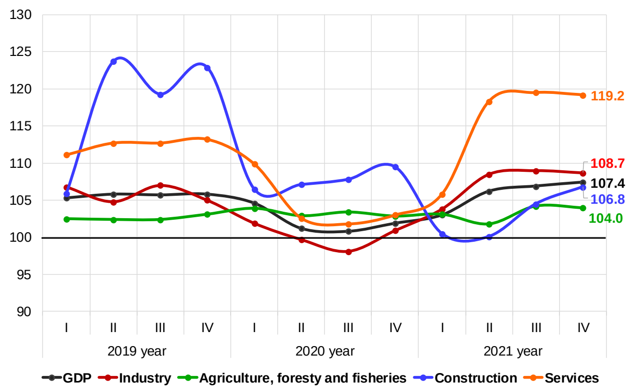
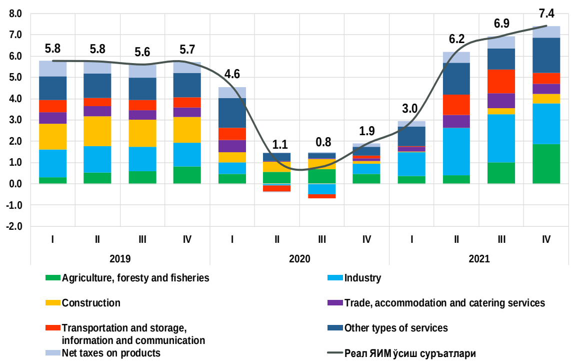


Figure 2.6. The share of industries in GDP growth



Source: *State Statistics Committee*

At the end of 2021, the real growth of **investments in capital formation** amounted to **5.2 percent.**

At the same time, the volume of centralized investments decreased by **3.6 percent** compared to the same period last year, while the volume of decentralized investments increased by **7.4 percent** and was one of the factors supporting investment activity (*Figure 2.7*).

In 2021, as a result of the recovery of economic activity in the private sector, a double increase of salaries in the public sector during the year, real incomes of the population increased by **12.1 percent** compared to 2020. The average salary in the country increased by **10 percent** compared to December 2020 and amounted to **3.2 mln. sum** (*Figure 2.8*).

Figure 2.7. Fixed capital investments

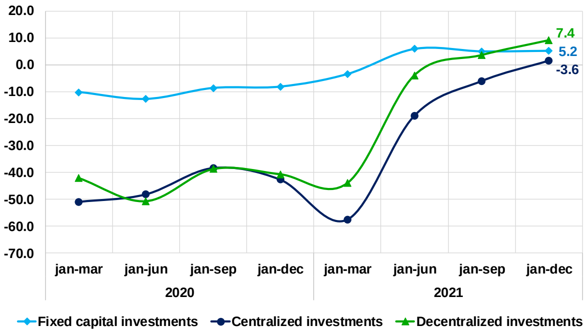
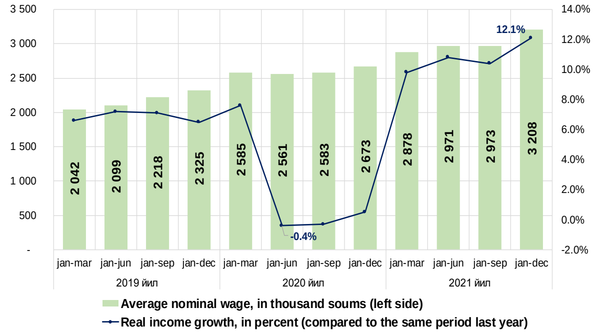


Figure 2.8. Population income growth and average nominal wages



Source: *State Statistics Committee*

Under the influence of the above factors, the volume of consumer goods production in 2021 increased by **13.5 percent**, food production by **16.9 percent**, and non-food production by **11.6 percent** (*Figure 2.9*).

Last year, loans to the economy increased by **31 percent** compared to 2020. High economic activity also had a positive impact on loan repayments, and loan repayments increased in all groups of economic entities compared to 2020 (*Figure 2.10*).

Figure 2.9. Changes in the volume of consumer goods production

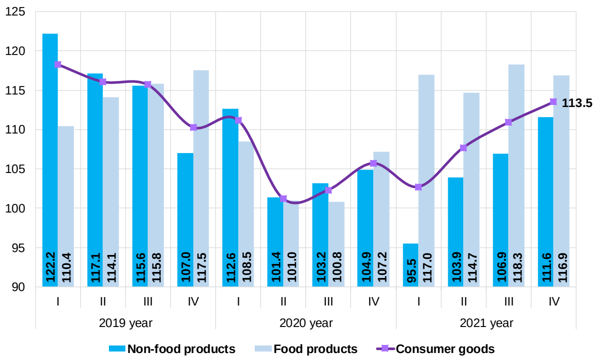
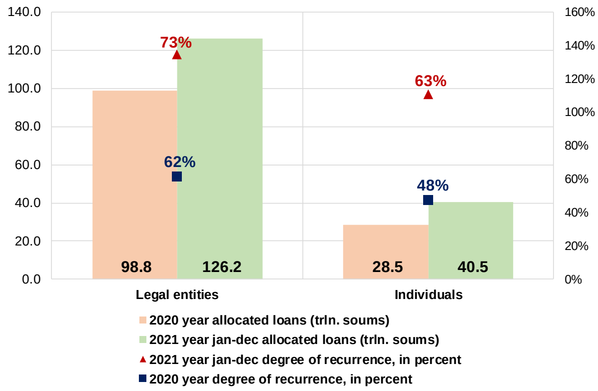


Figure 2.10. Loans to the economy, *trln soums*



Source: *State Statistics Committee*

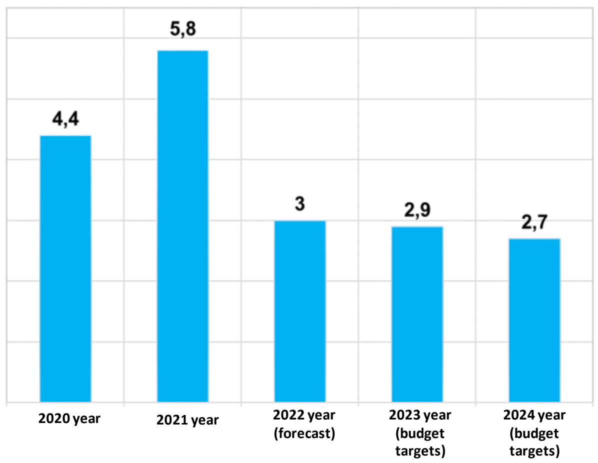
Source: *Central bank*

2.2. Fiscal conditions and expectations

In 2021, Uzbekistan, like all countries, continued to provide fiscal stimulus to the economy in order to overcome the negative consequences of the pandemic.

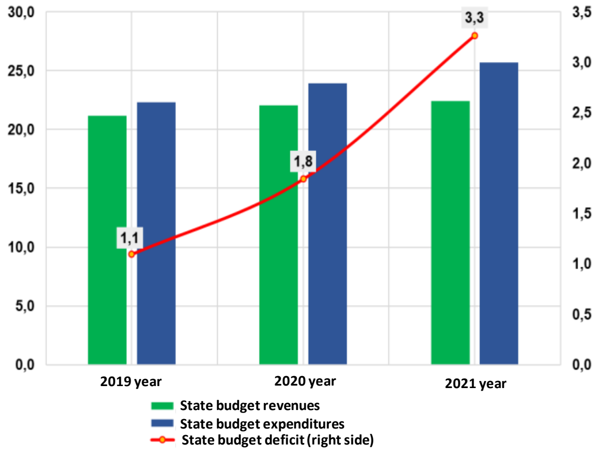
According to preliminary estimates, the ratio of the consolidated budget deficit to GDP in 2021 is expected to be **5.8 percent**, while the state budget deficit will be **3.3 percent** of GDP.

Figure 2.11. Consolidated budget deficit
(as a percentage of GDP)



Source: *The Ministry of Finance*

Figure 2.12. State budget revenues and expenditures
(as a percentage of GDP)



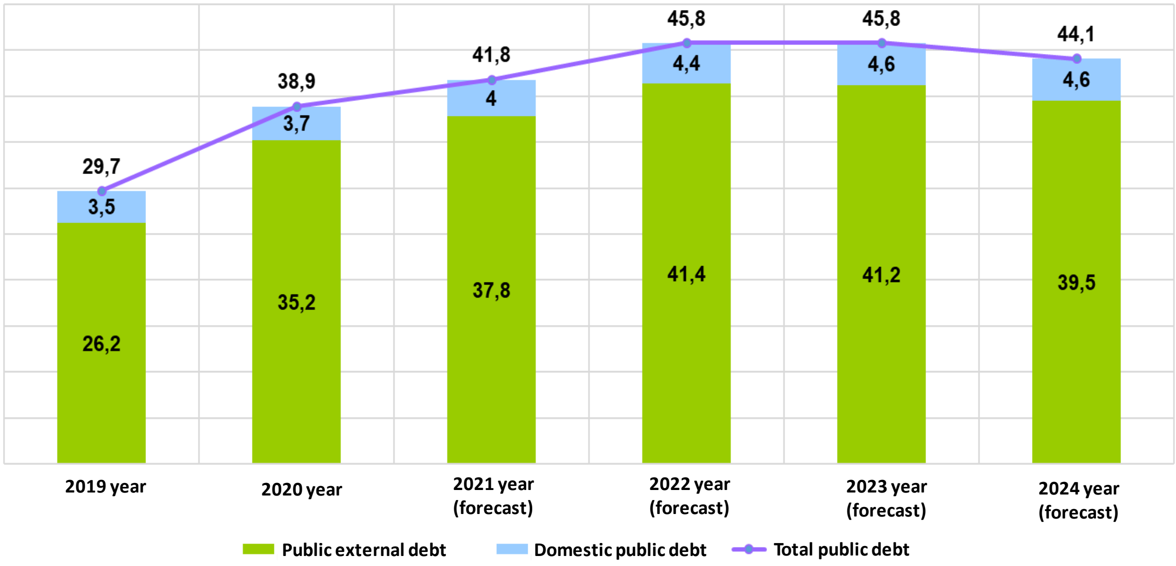
Source: *The Ministry of Finance*

Execution of state budget revenues in 2021 amounted to **164.7 trln. sum** exceeding the initial forecast by **17.5 trln. sum**. The increase in state budget revenues is explained by the recovery of economic activity, income growth and improved tax administration.

At the same time, the state budget expenditures **reach 188.7 trln. sum** increasing by **22.8 trln. sum** compared to the approved parameters for 2021. State budget expenditures increased in order to continue the ongoing socio-economic reforms in the country, further strengthen macroeconomic stability, reduce the negative impact of the pandemic and improve the welfare of the population (*Figure 2.12*).

According to the Ministry of Finance, the process of gradual fiscal consolidation in the economy will begin in 2022, and by the end of 2022 the total fiscal deficit is expected to be around **3 percent** of GDP. This, in turn, will help ensure macroeconomic stability and reduce inflationary pressures.

Figure 2.13. Public debt dynamics *(as a percentage of GDP)*



Source: *The Ministry of Finance*

In 2021, in order to finance the budget deficit and further develop sectors of the economy, the state attracted domestic and foreign debt. According to estimates, by the end of 2021, the ratio of total public debt to GDP is expected to be **41.8 percent**, including **37.8 percent** of external public debt and **4 percent** of domestic public debt.

Despite the growth rate of public debt, it does not exceed the high level of public debt *(60% of GDP)* set by the Law of the Republic of Uzbekistan “On the State Budget for 2021” *(Figure 2.13).*

In accordance with the Law of the Republic of Uzbekistan “On the State Budget for 2022”, it is expected that the volume of new agreements signed by the state this year to attract foreign debt will amount to **4.5 bln. USD**, including **2.5 bln. USD** to finance the state budget deficit, **2 bln. USD** to finance investment projects. The net volume of government securities issued on behalf of the Republic of Uzbekistan is planned to amount to **6.0 trln.** UZS.

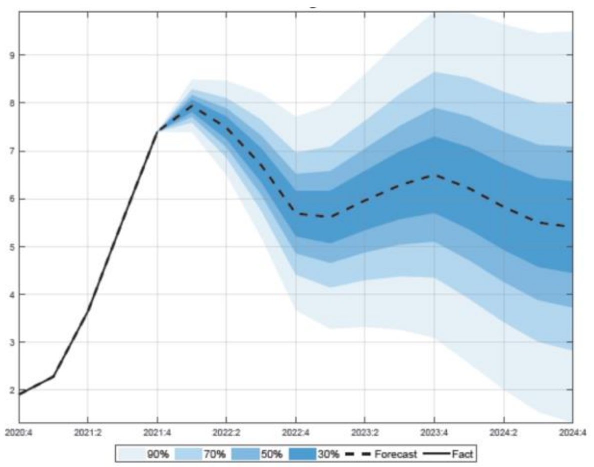
In order to effectively manage public debt and ensure the fiscal stability of the state, public debt is projected to remain at an acceptable level in 2022 and decline in subsequent years.

2.3. Macroeconomic development forecasts

Based on the statistics for the IV quarter of 2021, the Central Bank revised its medium-term forecasts on macroeconomic development.

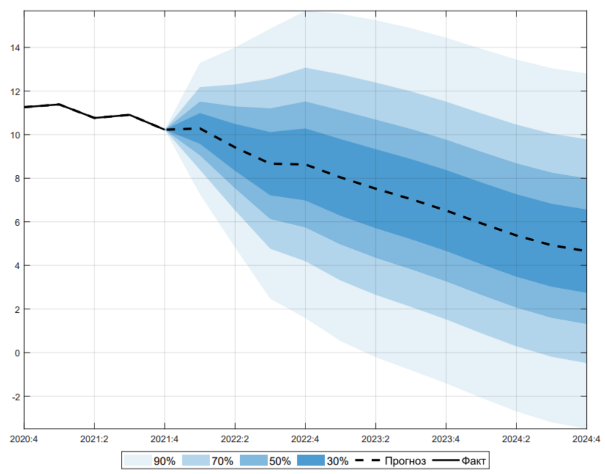
According to it, real GDP growth in 2022 is expected to be around **5.5-6.5 percent** under the baseline scenario outlined in the “Monetary Policy Guidelines for 2022 and 2023-2024” (*Figure 2.14*).

Figure 2.14. GDP growth forecast



Source: *Central bank*

Figure 2.15. Inflation forecast



Source: *Central bank*

In the updated forecasts, the **8.0-9.0 percent** inflation forecast for the baseline scenario for 2021 was left unchanged (*Figure 2.15*).

In 2022, the growth rate of the balance of loans to the economy is projected at the level of growth of nominal GDP (17-19%).

Box 2

Labor market and wages dynamics in Uzbekistan

By the end of Q3 2021, the total number of employed people in country had reached **13.6 million** and amounted to almost **91 percent** of the economically active population. Also due to the pandemic situation, the number of registered unemployed had been rising since Q3 2020, and by the end of Q3 2021 the number of unemployed was close to **92.5 thousand** *(Figure 1).*

Figure 1. Labour market dynamics

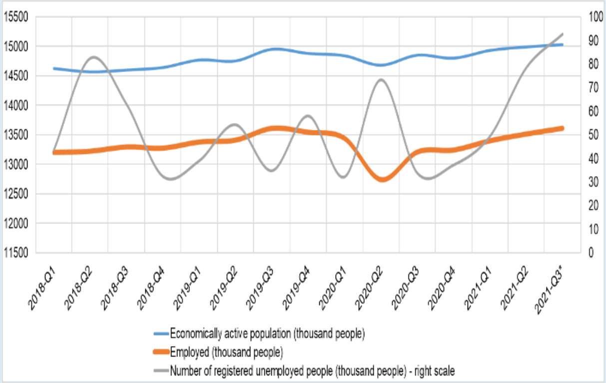
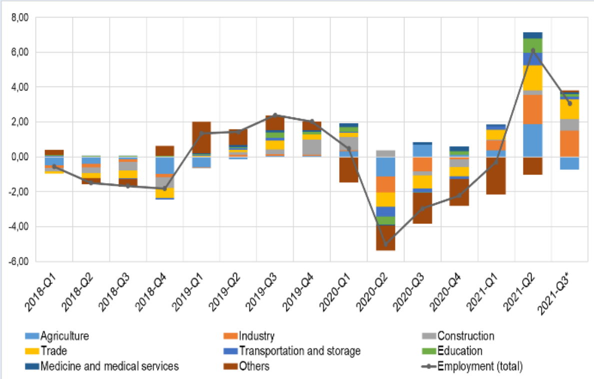


Figure 2. Sectoral contribution to employment growth *(pp.)*



Source: *State Statistics Committee*

At the same time, the number of people employed in the private sector amounted to **11 million** people (*an increase of 3.7% compared to the same period last year*), which is **81 percent** of the total number of employees. The number of people employed in the public sector amounted to **2.6 million** people, an increase of 0.5 percent compared to the corresponding period of 2020.

Agriculture (26.8% of total employment), industry (14%) and trade (11.1%) had the largest sectoral share in the employment structure. Employment in all sectors, except agriculture, increased compared to 2020.

While the employment growth rate in Q3 2021 was **3.1 percent** compared to the corresponding period in 2020, the contribution of industry (1.5 pp.) and trade sector (1.1 pp.) was high (*Figure 2*).

Given the sustained growth of economic activity and GDP growth, the number of employed is expected to increase in the coming quarters.

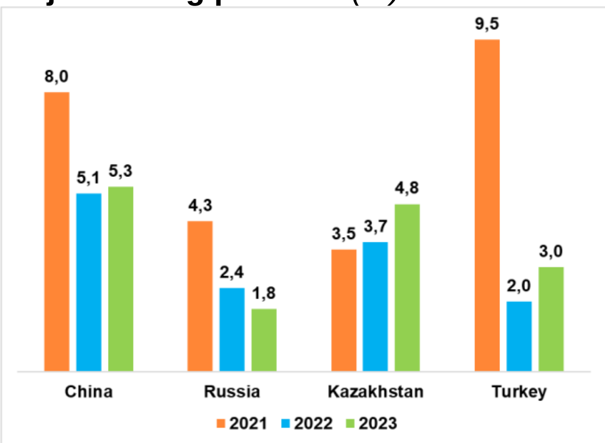
III. EXTERNAL ECONOMIC CONDITIONS

3.1. External demand and uncertainties in the global economy

In the Q4 2021, the global economic recovery has slowed slightly amid the ongoing pandemic, uncertainties and risks associated with the spread of the new omicron variant, as well as rising global inflation, reduced government stimulus, logistical and trade challenges.

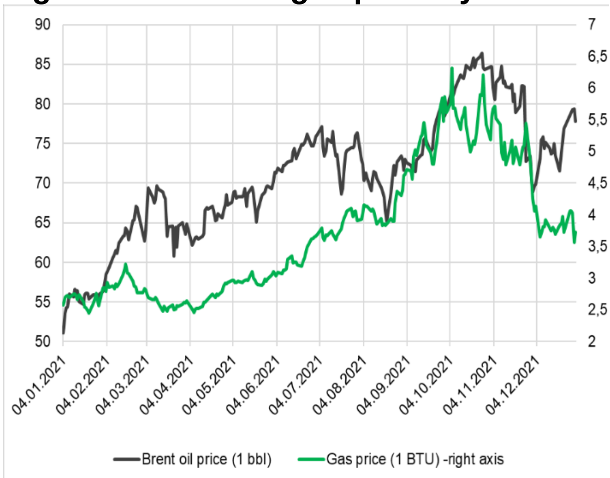
According to updated forecasts by World Bank, real GDP growth in 2021 is expected to be **5.5 percent**. At the same time, the economic growth rates of major trading partners have been revised for the coming years (*Figure 3.1*).

Figure 3.1. Economic growth rates of major trading partners *(%)*



Source: *Global Economic Prospects. World Bank, January 2022*

Figure 3.2. Oil and gas price dynamics



Source: *tradingeconomics.com*

The Chinese economy is expected to make a significant contribution to global economic growth in 2022. According to China's State Bureau of Statistics, the country's real GDP growth in 2021 amounted to **8.1 percent**. The main drivers of the economic recovery were production growth and exports.

However, growth slowed to an annualised **4 percent** in Q4. This decline was due to the spread of coronavirus in some parts of the country, temporary travel restrictions, a slowdown in investment in the real estate sector as well as the introduction of strict measures in the financial market.

Amid the lingering effects of the pandemic in China, declining exports and increased regulatory pressure in some sectors of the economy, **growth is projected to slow down** in 2022 (to a potential level of around 5-5.5%).

According to preliminary estimates, economic growth in Russia is expected to amount to **4.4-4.5 percent**. Economic growth was the result of a steady recovery of domestic demand, rising exports and energy prices (oil and gas) *(Figure 3.2).*

Growth of the Russian economy is expected to slow down in 2022 due to a tightening of monetary policy, a return to compliance with the “budget rule”.

The growth of the **Turkish** economy is projected at a high level (9-9,5%) as a result of the easing of monetary conditions in 2021 year.

According to calculations by international financial institutions, economic growth in Turkey is expected to slow significantly in 2022. The effect of high inflation in 2021 on private consumption may be greater than net export earnings. In addition, the expectations for attracting investment into the country are worsening due to falling interest rates and increased uncertainty.

2022 continues to be characterised by high risks and uncertainties. The pandemic, limited global external supply and growing threats to global inflation and financial stability are identified as key factors of the slowdown in economic activity.

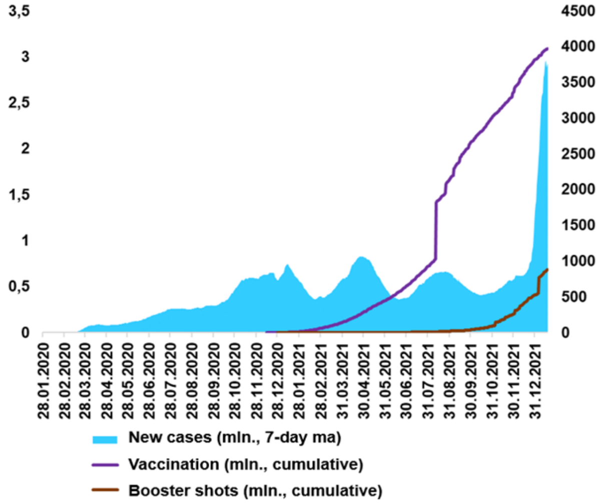
On the one hand, the rapid pace of vaccination processes may improve global growth prospects in 2022 and 2023, alongside with global production returning to pre-pandemic levels. On the other hand, there is also a risk that the emergence of new variants and the effectiveness of existing vaccines may not be sufficient to stop the spread of the virus (*Figure 3.3*).

A return to pre-pandemic levels will determine the recovery of global demand as well as prices for key commodities, especially energy sources. According to OPEC, global oil demand is expected to increase by **4.3 percent** in 2022 compared to 2021, with production reaching **100.8 million barrels.**

According to commodity market experts and analysts, risks that supply factors in the energy market may continue to put pressure on energy prices remain. Thereat, energy resources will remain as one of the main threats for the global inflation.

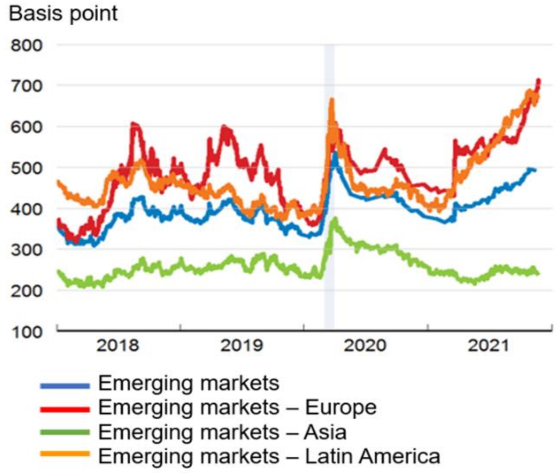
Inflation is another major uncertainty for the global demand. According to international analysts, consumer price inflation is likely to peak in most developed countries and emerging markets by Q1 2022 and decline gradually thereafter.

Figure 3.3. The pandemic and the vaccination process



Source: *Global Economic Prospects. World Bank, January 2022*

Figure 3.4. Spreads on government bond yields in local currency



Source: *OECD*

As inflation continues to accelerate, central banks may tighten their monetary policy earlier than expected.

Since the beginning of 2022, there has been an upward trend in government bond yields in emerging markets (*Figure 3.4*). However, there are also differences in yields on local and foreign currency bonds indicating that countries have currency risks.

If the currencies of developing countries depreciate, inflation will take longer to return to its targets. This, in turn, requires central banks to further tighten monetary policy and may hinder the recovery of external demand.

3.2. Inflation and exchange rates in major trading partners

Inflation in Russia, Kazakhstan and Turkey was **above target** in Q4 2021, while inflation in China continued to slow again after rising in November. In October-December, almost all trading partner countries tightened monetary policy raising key policy rates to lower inflation.

In 2021 many countries adopted monetary tightening measures. Bank of Russia increased its key rate by **4.25 percentage points** (1.75 percentage points in Q4), the central banks of Kyrgyzstan and Ukraine also raised policy rate by **3 percentage points** (0.5 percentage points in Q4), Georgia and Armenia by **2.5 percentage points** (0.5 percentage points in Q4) and the National Bank of Belarus by **1.5 percentage points** (*Table 3.1*).

Table 3.1. Monetary policy and inflation of major trading partner countries

Country	Inflation Target	Inflation Rate (annual)	Policy rate												
			I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual change
Russia	4	8,4	4,25	4,25	4,50	5,00	5,00	5,50	6,50	6,50	6,75	7,50	7,50	8,50	*4,25*
Kazakhstan	4-6	8,4	9,00	9,00	9,00	9,00	9,00	9,00	9,25	9,25	9,50	9,75	9,75	9,75	*0,75*
Kyrgyzstan	5-7	11,2	5,00	5,50	5,50	6,50	6,50	6,50	7,50	7,50	7,50	7,50	8,00	8,00	*3,00*
Turkey	5±2	36,1	17,00	17,00	19,00	19,00	19,00	19,00	19,00	19,00	18,00	16,00	15,00	14,00	*-3,00*
Ukraine	5±1	10	6,00	6,00	6,50	7,50	7,50	7,50	8,00	8,00	8,50	8,50	8,50	9,00	*3,00*
Armenia	4±1.5	7,7	5,25	5,50	5,50	5,50	6,00	6,50	6,50	7,00	7,25	7,25	7,25	7,75	*2,50*
Georgia	3	13,9	8,00	8,00	8,50	9,50	9,50	9,50	9,50	10,00	10,00	10,00	10,00	10,50	*2,50*
Belarus	5	9,97	7,75	7,75	7,75	8,50	8,50	8,50	9,25	9,25	9,25	9,25	9,25	9,25	*1,50*

Source: *Central Bank data of relevant countries*

It should be noted that, despite the high level of inflation, under the influence of external factors the Central Bank of Turkey has lowered the key rate by **3 percentage points** since the beginning of the year (*by 4 percentage points in Q4*).

Turkey's annual inflation rate continued to accelerate in October-December 2021, reaching an annual rate of around **36.1 percent** (the highest level since 2002).

Increases in transport costs (annual 53.7%), rising food and beverage prices (43.8%) and price increases in hotel, cafe and restaurant services (40.8%) played a main role in the high inflation. The country's producer index also showed an annual growth rate of 79.9 percent.

In 2021, the annual inflation rate in Russia and Kazakhstan amounted to **8.4 percent**. The main driver of price increases in these two countries was higher prices for food and non-food items, mainly fuel.

While the Central Bank of Russia has indicated that inflation will be around **4-4.5 percent** in 2022, the Central Bank of Kazakhstan expects inflation to reach the upper bound of the target range (6-6.5 percent) assuming no shocks.

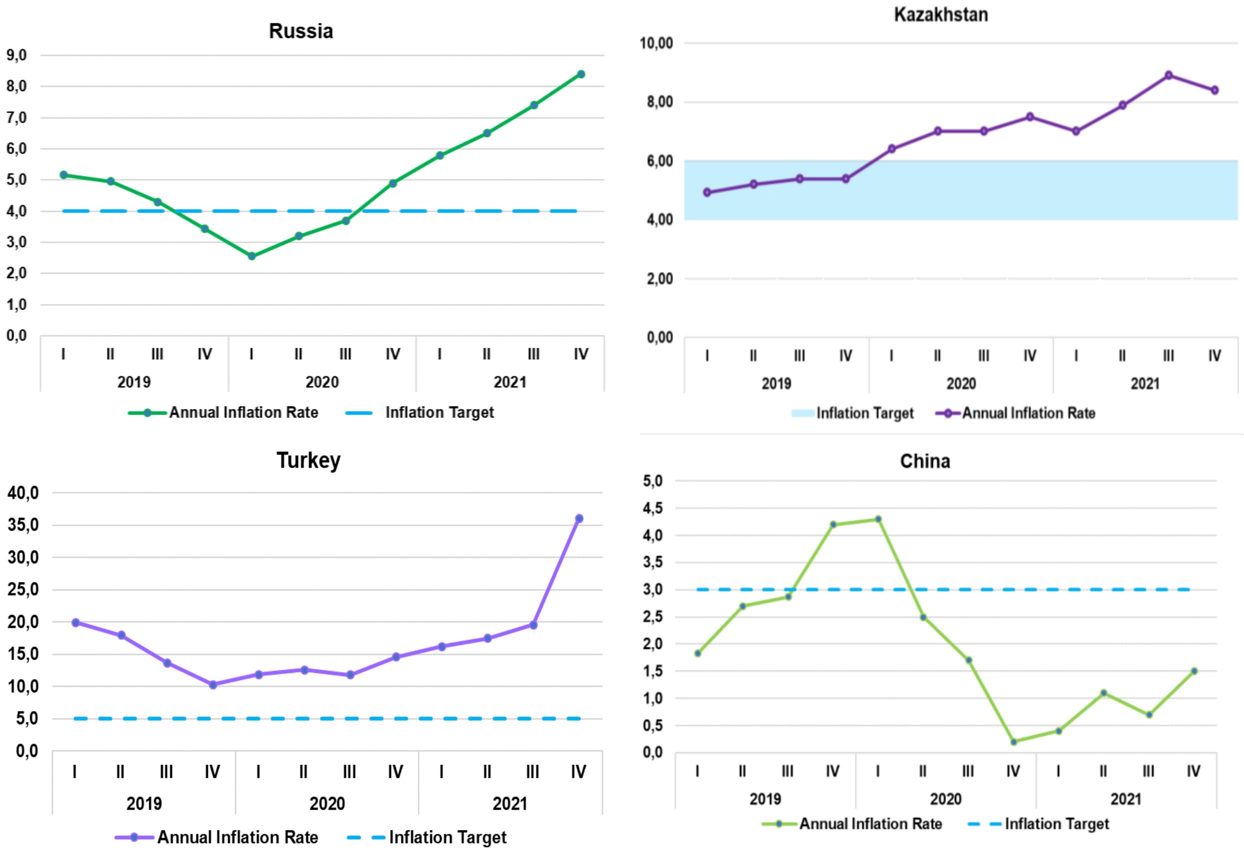
By the end of 2021, the annual inflation rate in **China** amounted to **1.5 percent**, decreasing by **0.8 percent** in November.

Despite a surge in cases in many countries in Q4 2021, the Chinese government managed to moderate the pandemic and keep the supply chain stable. This has helped keep prices in the economy stable. Economists predict that inflation in China will be around **2-2.2 percent** in 2022-2023.

China's producer price index fell by **3.2 percentage points** compared to October amounting to an annualized rate of **10.3 percent**. This was due to measures taken by the Chinese government to stabilize high commodity prices and improve energy supplies. Also, according to Bloomberg, the producer index is projected to be around **4 percent** in 2022.

Among the major trading partners, only China has a low annual inflation rate, while all other countries have a rising general price level (*Figure 3.5*).

Figure 3.5. Change in the consumer price index of major trading partners
(in % to the corresponding period of the last year)



Source: *Central Bank data of relevant countries*

The **Russian ruble** depreciated by **0.6 percent** in 2021 *(73.9 RUR per 1 USD at the beginning of the year and 74.3 RUR at the end of the year)* and remained stable throughout the year. One of the factors which supported the ruble was the recovery of global demand (including for raw materials) and the prices of energy resources, which were relatively stable in 2021. The raise of the key rate seven times since the beginning of 2021 reduced additional pressure on the ruble from demand side.

According to the Bloomberg consensus forecast, in 2022 the Russian currency is projected in the range of **71-72 rubles** against the US dollar. According to a macroeconomic survey conducted by the Bank of Russia, the exchange rate of the national currency may be around **72 rubles** in 2022.

Figure 3.6. Dynamics of the exchange rate of major trading partners
(to 1 US dollar)

Source: *Central Bank data of relevant countries*

The **Chinese yuan** appreciated by **2.8 percent** in 2021 *(6.53 RMB per 1 USD at the beginning of the year, 6.35 RMB at the end of the year)*. The main factors behind the yuan's appreciation were the inflow of foreign capital into the country and the growth of export rates.

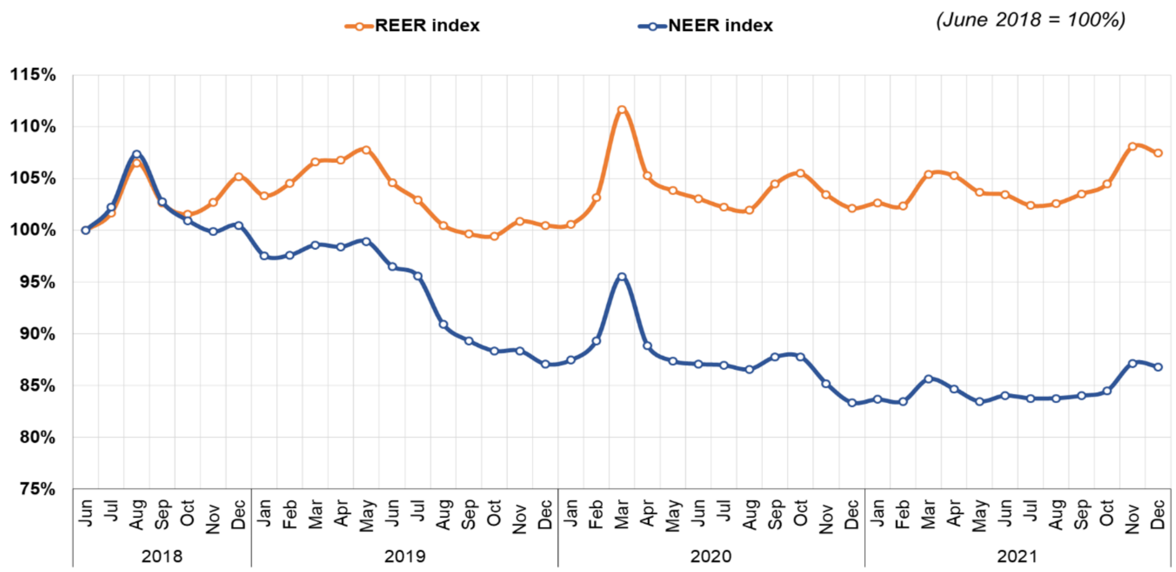
Last year, due to a rise in world oil prices, the **Kazakh tenge** depreciated by **2.6 percent** against the US dollar. The main reasons for the weakening of the Kazakh currency were the growth of imports and recovery of economic activity amid increasing consumer demand, as well as capital outflows from emerging markets.

In 2021, the **Turkish lira** depreciated by **81 percent** due to a reduction of the key policy rate from 19 percent in March to 14 percent in December, with a current account deficit because of high inflation, rising imports and a seasonal decline in tourism revenue in the fourth quarter.

In general, in 2021, the **exchange rates of the national currencies** of major trading partners, with the exception of the Turkish lira, were stable.

In turn, amid the weakening of national currencies of major trading partners and the formation of inflation in Uzbekistan above the level of partners inflation, the real effective exchange rate of the sum in October-December 2021 strengthened by **2.9 percent** (*Figure 3.7*).

Figure 3.7. Real and nominal exchange rate of the sum



Source: *Central Bank*

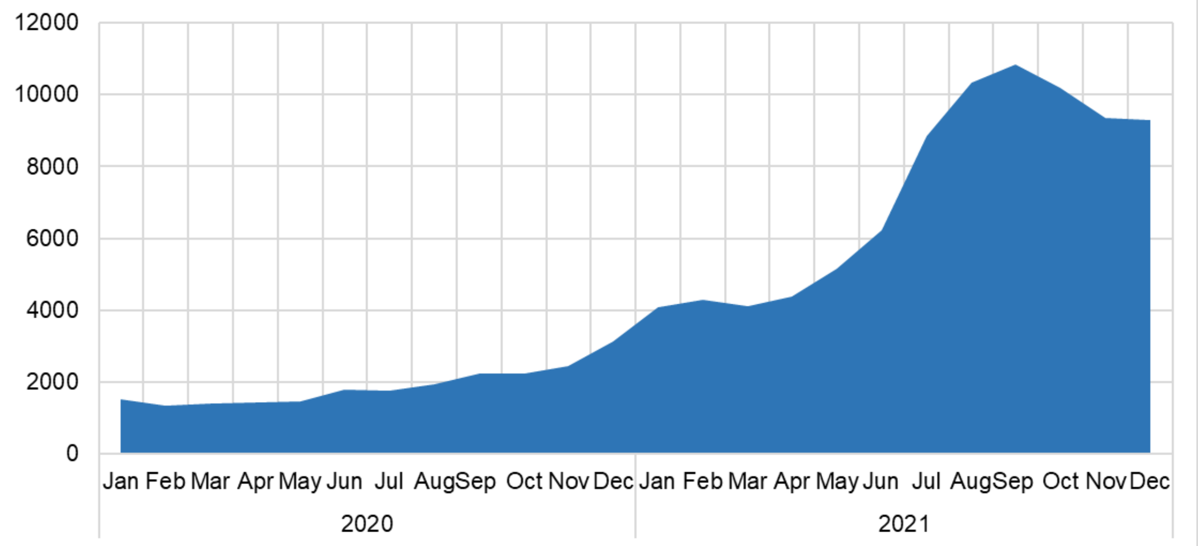
Box 3

Recovery of the global supply chain and cross-border movements

In 2021, the pandemic continued to cause disruptions in global supply chains as well as congestion at ports. As a result, freight rates increased significantly (*Figure 1*).

Supply chain disruption led to localization of production, reduction of supply chains and their reorientation to domestic markets.

Figure 1: Global Container Freight Index *(in US dollars)*



Source: *https://www.statista.com/statistics/1250636/global-container-freight-index*

Experts predict that in the short term, disruptions related to cargo ships, labor shortages, and supply and demand imbalances will continue. According to a Wall Street Journal survey, almost **45 percent** of economists expect global supply chains to improve in the second half of 2022.

In 2021, travel restrictions were softened due to increased vaccination as well as strengthened international cross-border coordination. In Q4 2021, the number of flights reached pre-pandemic levels. At the end of 2021, however, there was a further decrease in the total number of air travel due to the spread of the new variant of the virus (*Figure 2*).

World tourism rose by 4 percent in 2021 compared to 2020. According to preliminary estimates by the UN World Tourism Organization, the number of international tourist trips is still **72 percent** lower than 2019 before the pandemic.

In 2021, the economic contribution of tourism (tourism component in GDP) reached **1.9 trillion** US dollars (*1.6 trillion US dollars in 2020)*. However, it remains low compared to the pre-pandemic period *(3.5 trillion US dollars in 2019)*.

Figure 2. Number of flights

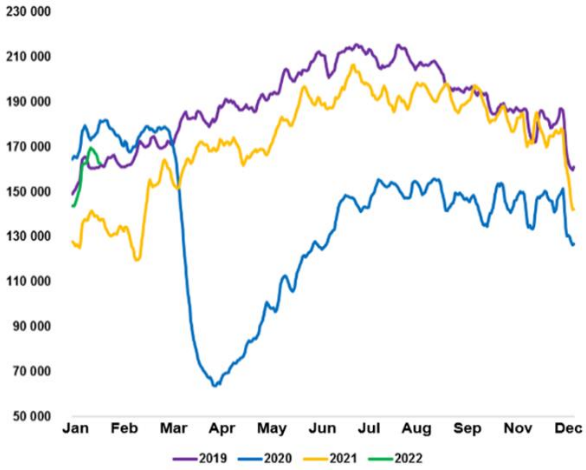
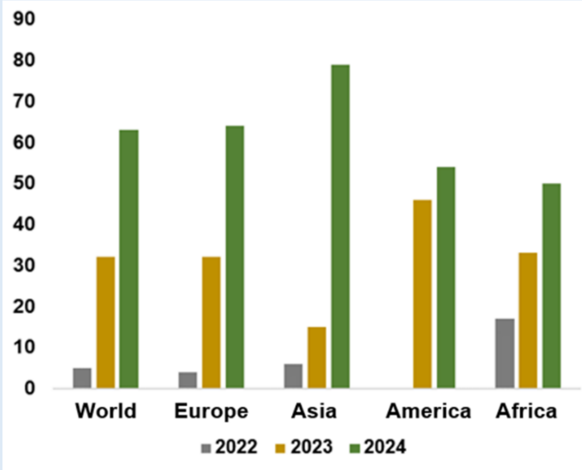


Figure 3: Survey results on tourism recovery *(in percent)*



Source: *https://www.flightradar24.com/*

Source: *https://www.unwto.org/*

According to the latest data by the expert group from UNWTO, the majority of specialists in the tourism industry (61%) see a positive prospects for 2022. Meanwhile, 5 percent of experts expect a recovery in the third quarter of 2022, a group of 32 percent expects potential growth only in 2023. Most analysts (63%) predict that international travel will return to 2019 levels in 2024 or later (*Figure 3*).

While a slower recovery of disruptions in global supply chains means that global inflation will be sustained over a longer period of time through the impact on aggregate supply, a slow recovery of cross-border movements will delay pre-pandemic rates of economic growth in countries whose economies are mainly dependent on tourism. That is to say, the future of supply chains and cross-border movements will largely depend on the global pandemic situation and the level of quarantine measures imposed by states.

IV. MONETARY CONDITIONS

In Q4 2021, amid the **unchanged** central bank key policy rate, annual inflation falling to an intermediate target level of **10 percent**, rising real interest rates on deposits and almost unchanged interest rates on loans, monetary conditions in the economy was formed at moderately tight level.

During this period there also was an increase in overall liquidity in the banking system, alongside with government spending exceeding revenues. Due to the active use of monetary operations, interest rates on money market transactions were fully within the Central Bank's interest rate corridor.

Meanwhile, the Central Bank's notes and liquidity operations increased during the quarter and served to reduce the impact of monetary factors on inflation by effectively absorbing additional liquidity from the banking system.

The exchange rate of the national currency also remained stable due to economic activity, including the recovery of export earnings, a significant increase in cross-border remittances and the balance of supply and demand on the domestic foreign exchange market.

In particular, the sum depreciated against the US dollar **by 1.4 percent** in nominal terms on quarterly basis and **by 3.4 percent** annually, while the real effective exchange rate strengthened. As a result, the exchange rate also played an important role in **lowering inflation** in the economy.

4.1. Interest rates in the economy

The lower annual inflation rate at the end of 2021 contributed to a **slight increase in the real value of the key policy rate,** which amounted to **3.7 percentage points** at the end of the year *(Figure 4.1).* The interbank money market interest rate, meanwhile, was around **13 percent** with slight fluctuations during the quarter.

In particular, the average quarterly interest rate was **13.1 percent**, forming a **0.9 percentage point** gap to the policy rate, which was explained by the high level of liquidity in the banking system *(Figure 4.2).*

At the same time, the change in monetary policy instruments in August helped **to balance** and **bring money market interest rates back into the Central bank's interest rate corridor**, and the planned changes for this year are expected to bring these interest rates **even closer to the key policy rate.**

Figure 4.1. The central bank's key policy rate

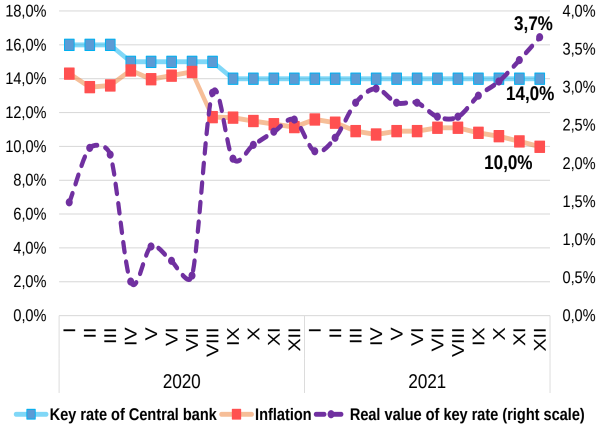
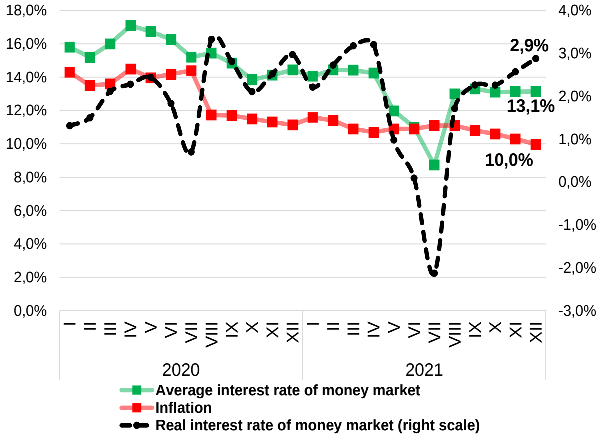


Figure 4.2. Interbank money market interest rates



Lower annual inflation also contributed to an increase in weighted average real interest rates on money market transactions during the quarter. In particular, the average interest rate on money market transactions in real terms amounted to **2.9 percent** in December, being sufficient to ensure **“moderately tight”** monetary conditions.

Also, the Central Bank and the Ministry of Finance announced a bond issuance schedule for the fourth quarter of 2021, which allowed commercial banks to plan liquidity management operations in advance.

At the same time, there was activity in issuing government securities, with a total of **10.2 trln.** sum of Central Bank notes and **1.4 trln.** sum of Ministry of Finance bonds issued during the quarter *(Figure 4.3).*

Figure 4.3. Issuance of government securities *(trln. sum)*

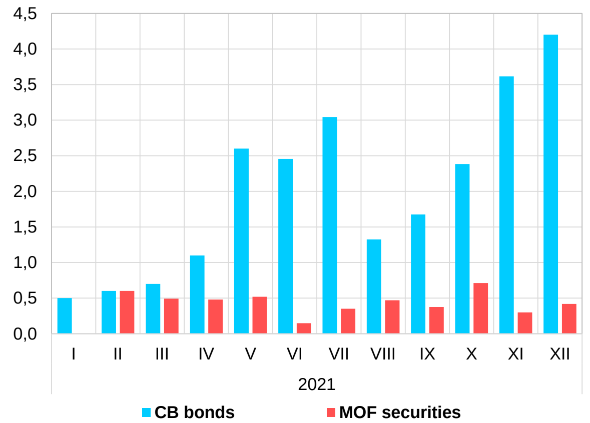
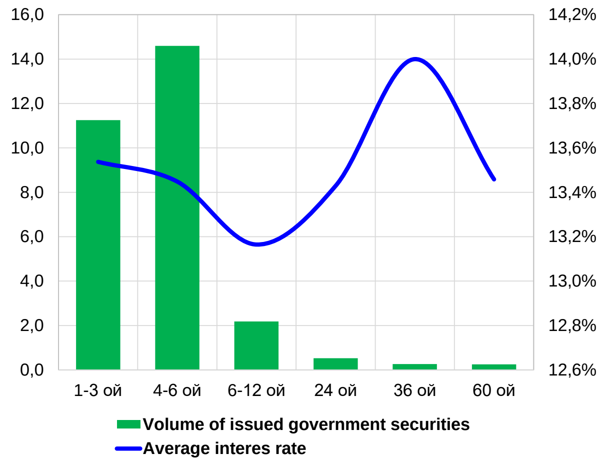


Figure 4.4. The yield curve for government securities



As of 1 January 2022, **12.1 trln.** sum of Central Bank notes and **4.7 trln.** sum of government securities by the Ministry of Finance were issued.

The weighted average interest rates for securities with different maturities (yield curve), was shaped depending on the overall liquidity position of the banking system at the time of issue and the demand of commercial banks in the primary market rather than on future macroeconomic expectations *(Figure 4.4).*

As a result of the start of a gradual transmission of “moderately tight” monetary conditions to the money market, there was an **increase in real interest rates** on time deposits and loans in the economy during the quarter.

Meanwhile, weighted average nominal interest rates on deposits of individuals in December amounted to **20.2 percent** and to **15.1 percent** on corporate deposits. *(Figure 4.5).*

Real interest rates on term deposits in national currency *(adjusted for inflation)* in December amounted to **9.3 percent** for individuals and **4.7 percent** for legal entities *(Figure 4.6).*

Figure 4.5. Nominal interest rates on term deposits in national currency

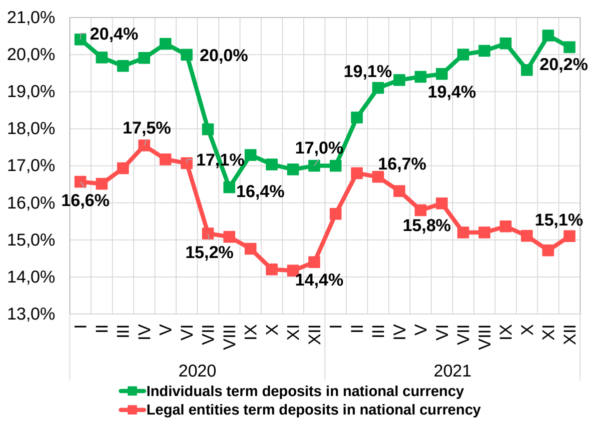
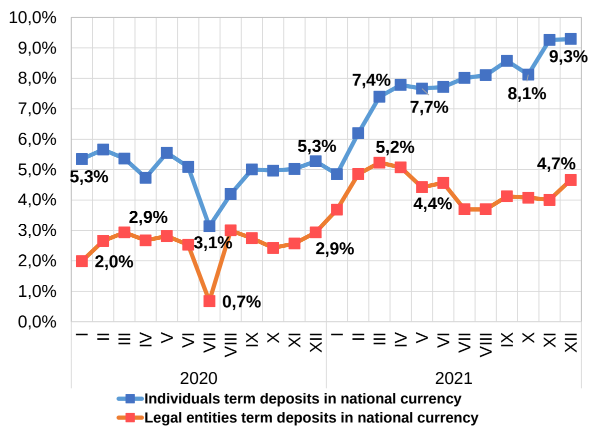


Figure 4.6. Real interest rates on term deposits in national currency



Real interest rates on individual deposits in the national currency formed **4-5 percentage points** above the inflation expectations of the population, that, in turn, was one of the main factors **increasing savings activity** and **balancing aggregate consumption.**

There interest rates on loans in national currency were also balanced during the quarter, forming within the **20-22 percent** corridor since the beginning of the year. In particular, in December, weighted average interest rates on short-term loans in national currency amounted to **21.2 percent** and to **20.5 percent** on long-term loans *(Figure 4.7).*

Figure 4.7. Nominal interest rates on loans in national currency

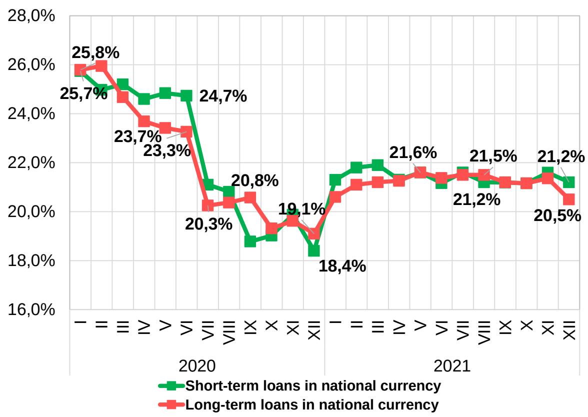
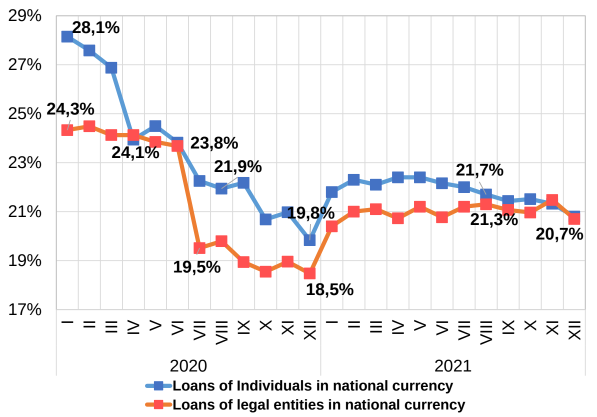


Figure 4.8. Nominal interest rates on loans in national currency



However, the fact that the weighted average interest rates on short-term loans are higher than those on long-term loans is explained by the availability of long-term loans at relatively low interest rates based on **government programmes** to support family businesses and mortgage loans.

In turn, weighted average interest rates in national currency amounted to **20.8 percent** on loans to individuals and to **20.7 percent** on loans to legal entities *(Figure 4.8).*

The balanced interest rates on loans and their reduction compared to the beginning of 2020 indicates that the efficiency of the interest channel of the transmission mechanism has increased. With a decline in inflation in future quarters, a **decrease in the central bank's key policy** rate and, consequently, a **cheapening of loans** in the economy may be expected.

4.2. Analysis of the dynamics of deposits and loans

In Q4 2021, the total money supply increased by **13.6 percent** to **140.2 trln.** sum. At the same time, the volume of cash in circulation during the quarter remained virtually unchanged and amounted to **28.7 trln.** sum in circulation, while their share in total money supply decreased **by 2.8 percentage points** (from 23.2% to 20.4%) *(Figure 4.9).*

Generally, in 2021, deposits in national currency increased by **37.3 percent** or **18 trln.** sum, while deposits in foreign currency increased by 31.5 percent (10.9 trln. sum).

There was a significant increase in total **individual deposits**, which was mainly due to rise of those in the national currency. In particular, in the fourth quarter, total individual deposits in banks rose by **13.4 percent** to **36.6 trln.** sum, while there was an increase **by 17.4 percent** (by 3.7 trln. sum) in deposits in national currency and by **5.7 percent** (or 0.6 trln. sum) in deposits in foreign currency rose *(Figure 4.10).*

Figure 4.9. Change in the money supply and its components *(trln. sum)*

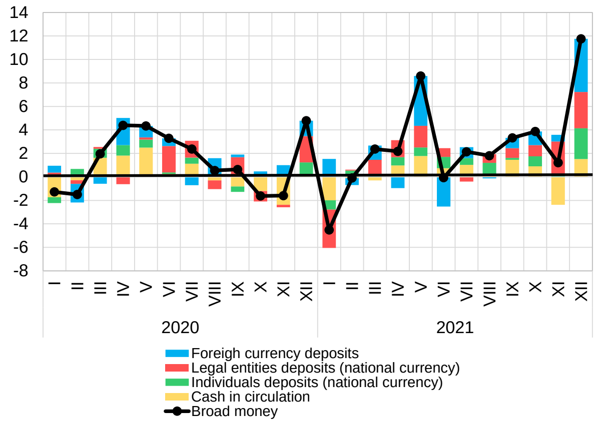
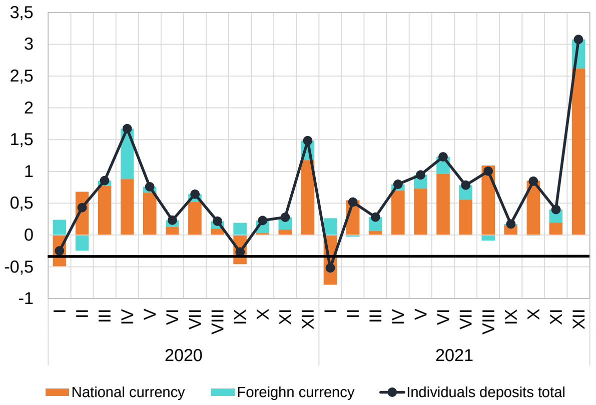


Figure 4.10. Change in individual deposits *(trln. sum)*



In general, in 2021 the total volume of deposits of individuals increased by **35.2 percent** (9.5 trln. sum) changing in line with the growth trends of the real incomes of the population.

Given the current real interest rates on deposits in national currency and the current stable exchange rate dynamics, high growth rates of individual deposits in national currency are expected to continue in the coming quarters.

Figure 4.11. Change in loans to the economy and its components *(trln. sum)*

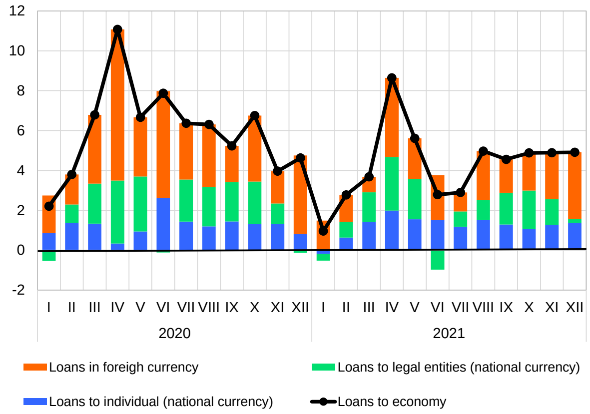
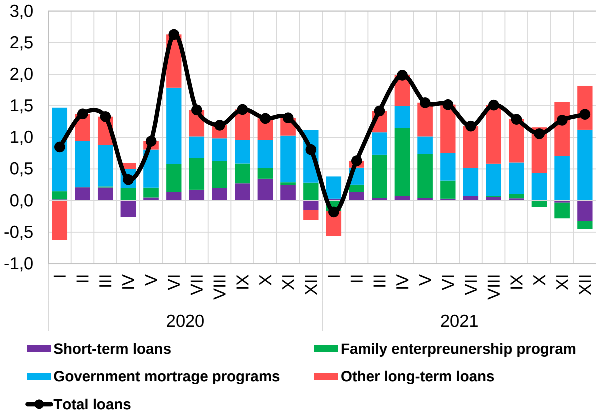


Figure 4.12. Change in the balance of loans to individuals *(trln. sum)*



In Q4 2021, the balance of **loans to the economy** rose **by 4.6 percent** (14.7 trln. sum) to **331.9 trln.** sum. At the same time, the annual growth rate of loans amounted to **18.4 percent,** which was almost 2 times lower than in 2020.

The volume of loans in national currency increased **by 4.3 percent** (7.1 trln. sum) over the quarter and **by 18.5 percent** (27.1 trln. sum) over the year, and its share in total loans was **52.3 percent** *(Figure 4.11).* Thus, the level of dollarisation of loans at the end of the year amounted to **47.7 percent,** which was one of the main factors reducing the effectiveness of monetary policy.

Loans to individuals grew **by 5.6 percent** (3.7 trln. sum) during the quarter and **by 26.6 percent** (14.6 trln. sum) on annual basis, having higher growth rate than total loans. This can be explained by active allocation of loans under Entrepreneurship Development and Mortgage Programme, as well as meeting the accumulated demand of population for individual loans during previous periods. At the same time, the share of the balance of loans to individuals in total loans amounted to 20.9 percent by the end of the year *(Figure 4.12)*.

Box 4

Growth of loans in the economy, the debt burden, the credit gap and its impact on macroeconomic stability

As a result of the accumulation of investment demand in the economy over the years, there was a high rate of growth in the volume of loans to the economy. In particular, in 2018-2019 the growth of loans was more **than 50 percent**; in 2020, the figure amounted **to 34.3 percent** *(Figure 1).*

Although the growth in the balance of loans fell **to 18.4 percent** last year, there was a high growth in the volume of loans to the economy. Specifically, in 2021 total loans amounted to 167 trln. sum, increasing **by 31 percent** compared to a year earlier *(Figure 2).*

Figure 1. Change in the balance of loans to the economy *(annual percentage)*

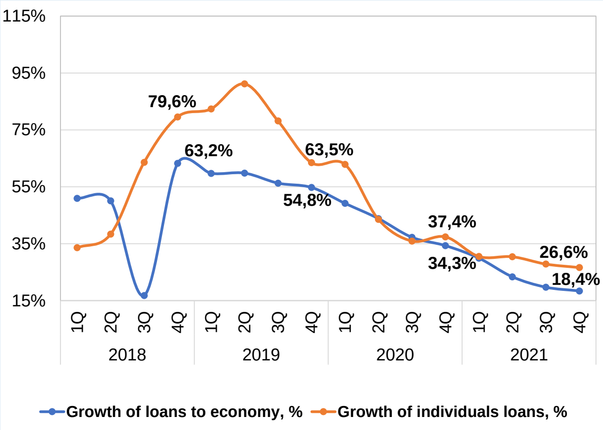
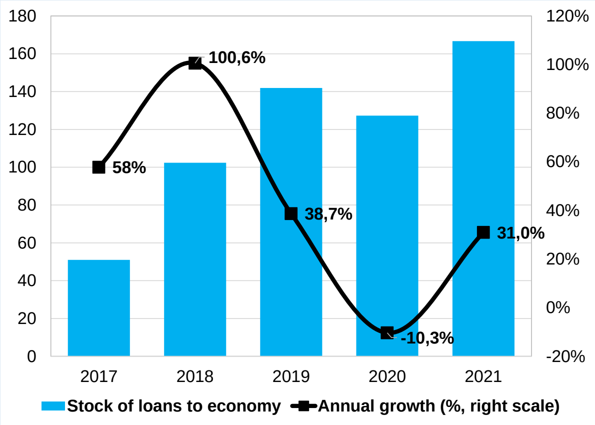


Figure 2. Volume of loans to the economy *(trln. sum)*



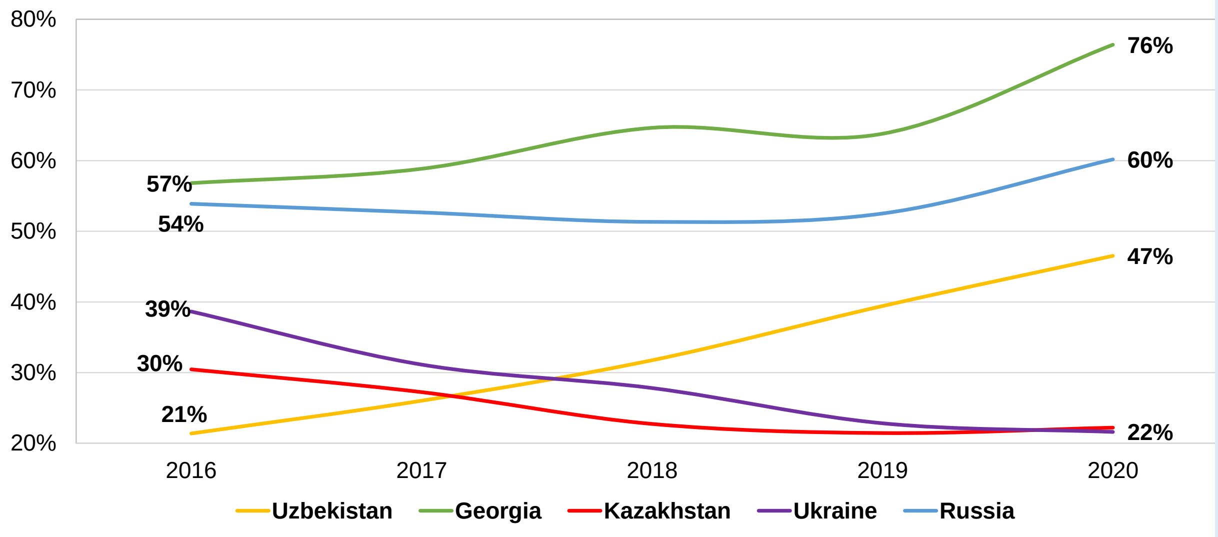
The slowdown in the growth rate of the balance of loans and their consistency with the growth rate of nominal GDP created conditions for a reduction in the pressure of monetary factors on the inflation rate. The slowdown is explained, on the one hand, by an increase in the loan **repayment rate** *(from 59% in 2020 to 71% in 2021)* and, on the other hand, by **a “high base” effect**.

In assessing the importance of loans to the economy, the **Credit-to-GDP ratio** is widely used. This indicator is also used by international experts as an alternative indicator of the debt burden of the economy. This indicator allows not only to assess the change in the volume of lending to the national economy, but also to compare it with other countries.

In particular, amid a sharp increase in loans over the last 5 years, the credit-to-GDP ratio in our country increased **by 26 percentage points** to **47 percent** by the end of 2020.

In comparison, in Russia and Georgia the ratio is higher than in our country, while in Ukraine and Kazakhstan the credit-to-GDP ratio has fallen to 22 percent over the last 5 years *(Figure 3).*

Figure 3. Dynamics of the credit-to-GDP ratio in Uzbekistan and some CIS countries
(annual percentage)



Source: *Central Banks of related countries*

The credit-to-GDP ratio largely depends on the degree of credit and financial saturation of the economy, the development of financial markets and other alternative debt instruments, the dynamics of the debt burden and a number of other macroeconomic indicators.

According to calculations, the credit-to-GDP ratio in the country amounted to **45.2 percent** in 2021, decreasing slightly compared to the previous year due to the high growth of nominal GDP *(22%)* and a relatively proportional increase in lending *(18.4%).* According to the central bank's medium-term macroeconomic forecasts, the credit growth rate in the coming years is expected to be in line with nominal GDP growth and the credit-to-GDP ratio will form in the range of **45-50 percent.**

In addition, the growth trend of the balance of loans to the economy and an indicator of the deviation of real growth from this trend - the credit gap - was calculated. This indicator allows us to study the credit cycle in the economy, showing whether credit growth is high or low compared to the long-term trend.

To determine the credit gap, monthly logarithmic data on loans balances for 2012-2021 were used and the trend and credit trend was calculated using the "HP filter"[3] *(Figure 4).*

The credit **gap** was **negative** in 2015-2017, while there was a sharp credit growth creating **a positive gap** compared to the trend in 2018-2020. The transition to a negative credit gap by 2021 is explained by the balanced growth rate of loans allocation to the economy. Nevertheless, this figure **does not show a reduction of loans to the economy**, given improved credit discipline *(Figure 5).*

[3] **The HP (Hodrick-Prescott)** filter is a mathematical tool used in macroeconomics, especially in real economic cycle theory, to separate the cyclical component of time series from the trend. This filter allows us to study long-term trends and short-term fluctuations in statistical indicators.

Figure 4. Growth trend of the balance of loans to the economy *(logarithmic value)*

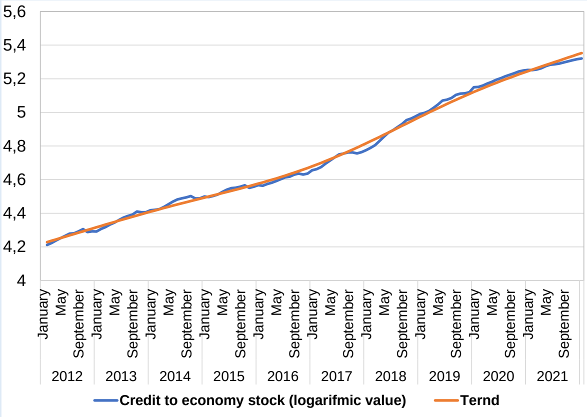
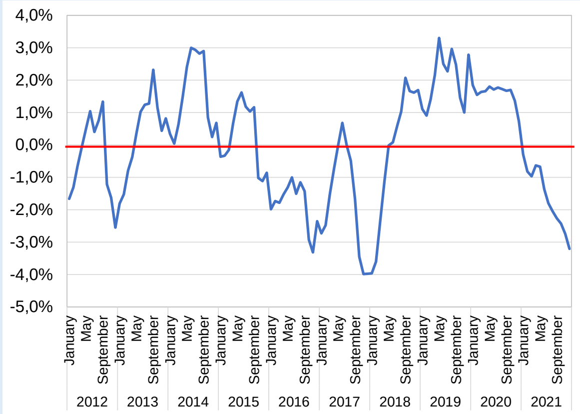


Figure 5. Credit gap *(in relation to trend, %)*



A commonly used indicator in determining the level of loans to the economy in foreign practice is the credit-to-GDP ratio gap (Borio and Lowe 2002). This indicator allows us to determine the deviation of the credit-to-GDP ratio from the long-run trajectory, thus normalising the volume of credit and ensuring the growth of the credit supply in line with the volume of economic growth (Figure 6).

Figure 6. Credit to GDP ratio gap (%)

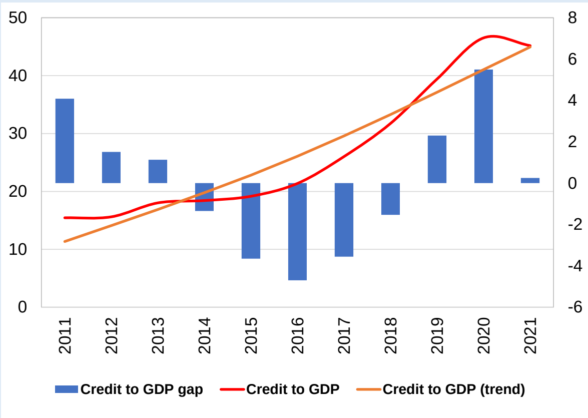
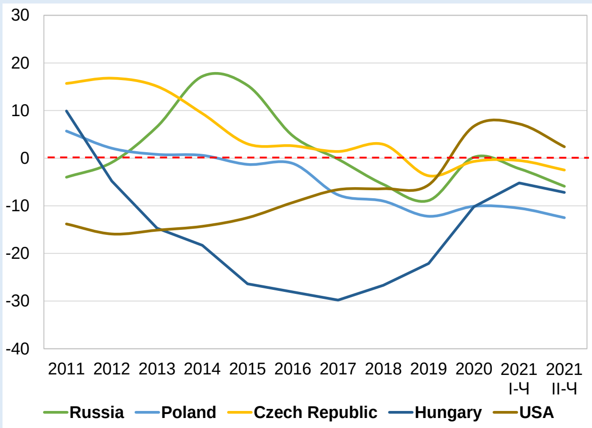


Figure 7. Credit-to-GDP ratio gap by country (%)



Source: *Central Bank*

Source: *Bank for International Settlements*

The credit-to-GDP ratio gap was calculated using the “HP filter” based on available statistics on the balance of loans over the last 11 years and data on nominal GDP.

Meanwhile, due to high loans growth in recent years, **the negative gap**, observed in 2014-2018, had turned into a significant **positive gap** in 2019-2020 and then it **closed** by 2021 in a pandemic.

While a positive gap contributes to inflationary pressures in the economy, this negative valuer indicates that insufficient funds are being allocated to the economy. In the future, the quality of the credit-to-GDP ratio calculation is also expected to improve as the reference period expands.

In foreign countries, the gap in the credit-to-GDP ratio is shrinking, and in most countries even a negative gap is emerging. Meanwhile, the growth in 2020 was due to the easing of monetary conditions to support the economy and a corresponding increase in lending, while the downward trend in 2021 was the result of tightening of monetary conditions against the background of global inflation *(Figure 7).*

The central bank regularly monitors the dynamics of loans to the economy, the supply and demand in the loans market and the interest rates generated by them, and takes systematic measures to ensure that loans growth matches that of nominal GDP.

Prepared by the Monetary policy department.

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