



Quarterly Macroeconomic Report

Expert Survey Results Q3 2022



Important Note

We have conducted our tenth quarterly survey on macroeconomic indicators among leading and distinguished economists (including those who have worked in central banks), professors of macroeconomics, representatives of international development institutions, commercial banks and brokerage firms to obtain a balanced picture of the factors that are most important for the economy of Kazakhstan.

The survey is focused on projections of the following macroeconomic indicators in time horizons of 1 to 5 years, including:

- the BRENT oil price
- USD/KZT, USD/RUB, RUB/KZT exchange rates
- inflation rate in Kazakhstan
- NBRK base rate

We understand that revealing experts' identities may affect their responses. In order to avoid such biases, we kept the survey confidential. The respondents' names and job titles were disclosed only with their formal permission.

The Quarterly Macroeconomic Report is a regular publication that provides a snapshot of the macroeconomic situation in Kazakhstan. The survey of respondents was conducted in mid-November 2022. All forecasted values, as well as text materials presented in the report for the Q3 2022 reflect the macroeconomic situation in Kazakhstan and in the world, taking into account the events that occurred in July-November 2022.



Introduction



Natalya Lim

Partner,
Eurasia Advisory Leader

“To do the impossible is not such a big problem, if you know where to begin”

Max Frei

It has already become a tradition to write a quote for each issue of our macroeconomic survey. And this time the short story "The Crow on the Bridge" by Max Frei was chosen: *“To do the impossible is not such a big problem, if you know where to begin”*. On the one hand, we all understand that the environmental problem is not the issue of one country, but the efforts of all of us at the global level. However, now, at the time of survival, each economy thinks about itself independently. In the 21st century of globalization, it was hard to imagine that the world would face a pandemic, and then a war in Ukraine and thousands of sanctions imposed on Russia... and the usual balance would be disturbed. Well, can we, as humanity, do the impossible? I believe we can, if everyone starts with themselves.

In this issue of the Q3 2022 Macroeconomic Report, we consider key indicators of the macroeconomic environment, their dynamics and impact on the economy of Kazakhstan.

The predictable macroeconomic environment is the most important factor in making decisions to strengthen and develop the economy. Time will show how Kazakhstan will cope with this, being in the thick of action. In the meantime, we rely on the forecasts of our experts.

We bring to your attention the ninth issue of the Quarterly Macroeconomic Report for Q3 2022, in which we reflected the respondents' answers under a neutral scenario (without shock reactions of the economy to geopolitical events), as well as the current impact of events in Ukraine on the macroeconomic indicators of the EAEU and CIS countries. The survey pool of participants is the same and includes reputable economists, financiers, and representatives of Kazakhstan's scientific community who shared their opinions on important macroeconomic indicators of the country: oil prices, USD/KZT, USD/RUB, RUB/KZT exchange rates, inflation rate and NBRK base rate.

Respectfully,
Natalya Lim

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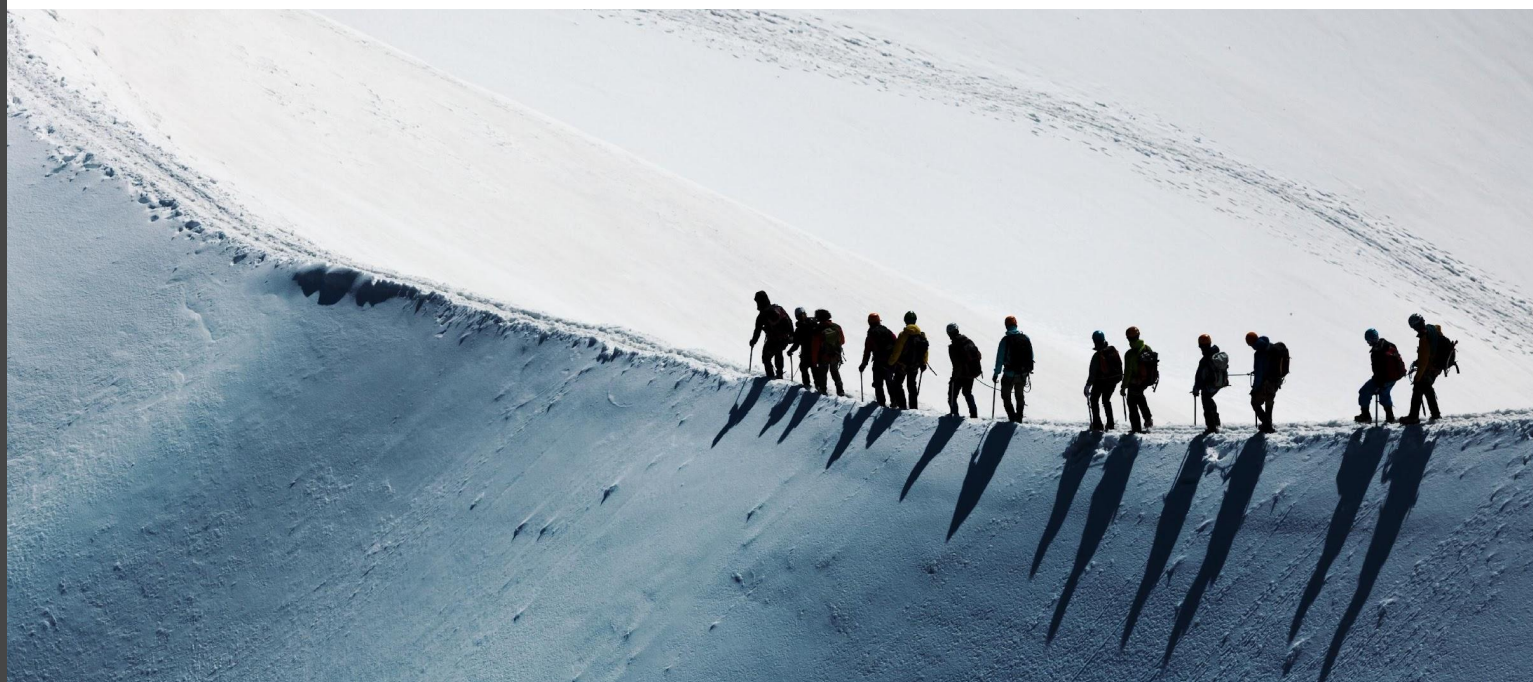
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Survey Overview and Objectives



Fourteen experts have agreed to participate in the survey. Many of the respondents provided us with detailed comments, which have formed the basis of the descriptive part of this report

In order to obtain a comprehensive and balanced picture, we invited experts from various fields. Our respondents include leading economists, professors of Macroeconomics and representatives of international financial institutions, commercial banks, and brokerage firms.

The experts were asked to answer questions regarding the impact of geopolitical, exogenous factors on the economy of Kazakhstan. Additionally, the respondents offered their forecasts for the price of BRENT oil, the USD/KZT, USD/RUB, RUB/KZT exchange rates, the inflation rate in Kazakhstan, and the base rate of the National Bank of the Republic of Kazakhstan in time horizons of one to five years. This horizon was chosen to obtain medium-term projections.

Through the survey, we derived forecasts for key macroeconomic indicators which often make up the basis of financial and economic models utilized by many companies (including commercial banks and investors). These forecasts are often used by economic departments to compare and calibrate baseline values used in such computations.

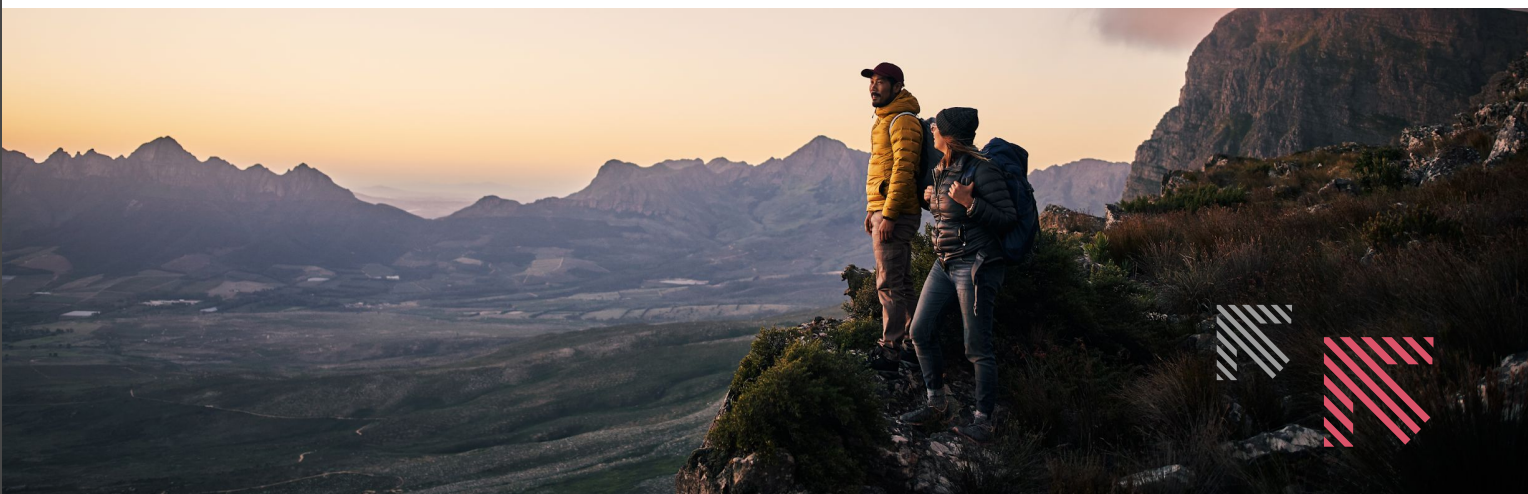
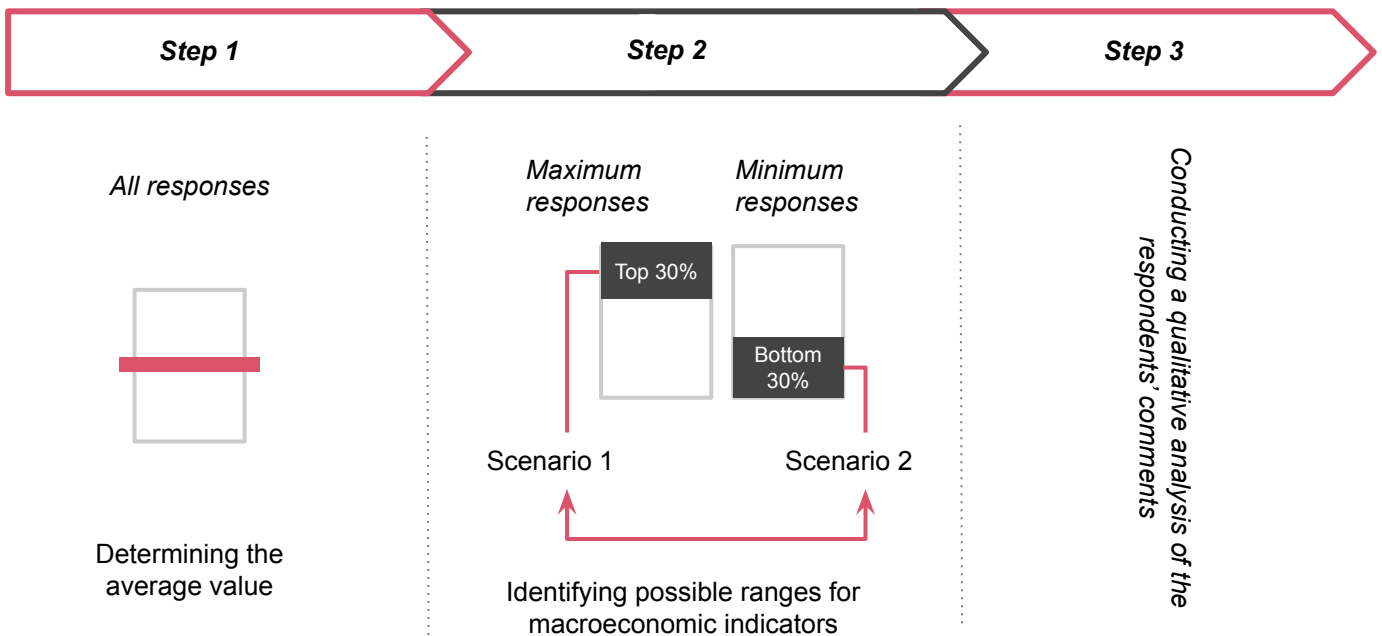
Conducted regularly, such analyses can improve the quality of computational models commonly used and facilitate a more flexible response to dynamic changes in the economic environment. In our practice, we have encountered situations when computational models, despite high levels of detailing and elaboration, did not provide the businesses with insights to make decisions, that could save company's equity.

With this survey, we hope to provide readers with a structured, systematic, and regularly updated array of data on macroeconomic indicators based on the best expert estimates in the market. The survey was conducted in mid-November 2022.



Our Approach to Analyzing Survey Results

As we analyzed the respondents' answers, we noticed quite significant differences in opinions. This happens frequently in studies where experts represent different fields (economists, traders, scientists, bankers, and financiers) and therefore have access to different sources of information. Aggregating opinions of financial market specialists as well as scientific experts and leading economists of Kazakhstan allowed us to evaluate probabilities of multiple scenarios for how the economy of Kazakhstan will develop. For these purposes, PwC Kazakhstan asked survey participants to provide their forecasts in the form of minimum and maximum possible values for questions where it was relevant (oil prices, exchange rates, inflation) and then analyzed the results in several ways. In addition to utilizing standard statistical methods, we took the top 30% of the maximum responses and the bottom 30% of the minimum responses to identify the most optimistic and most pessimistic development scenarios.



Key Findings:

Kazakhstan's Economy

Page 8

Stage of “recovery and growth”

64% of respondents believe that Kazakhstan is at the stage economic recovery and growth

Oil Prices

Page 11

Below \$110 per barrel

85% of respondents expect the price of Brent oil to be below \$120 per barrel during the next 12 months

Exchange Rates

Page 13

Up to 500

71% of respondents expect the USD/KZT rate to be no higher than 500 during the next 12 months

Inflation (CPI)

Page 17

Less than or equal to 15.5%

64% of respondents expect inflation to be less than or equal to 15.5% during the next 12 months

NBRK Base Rate

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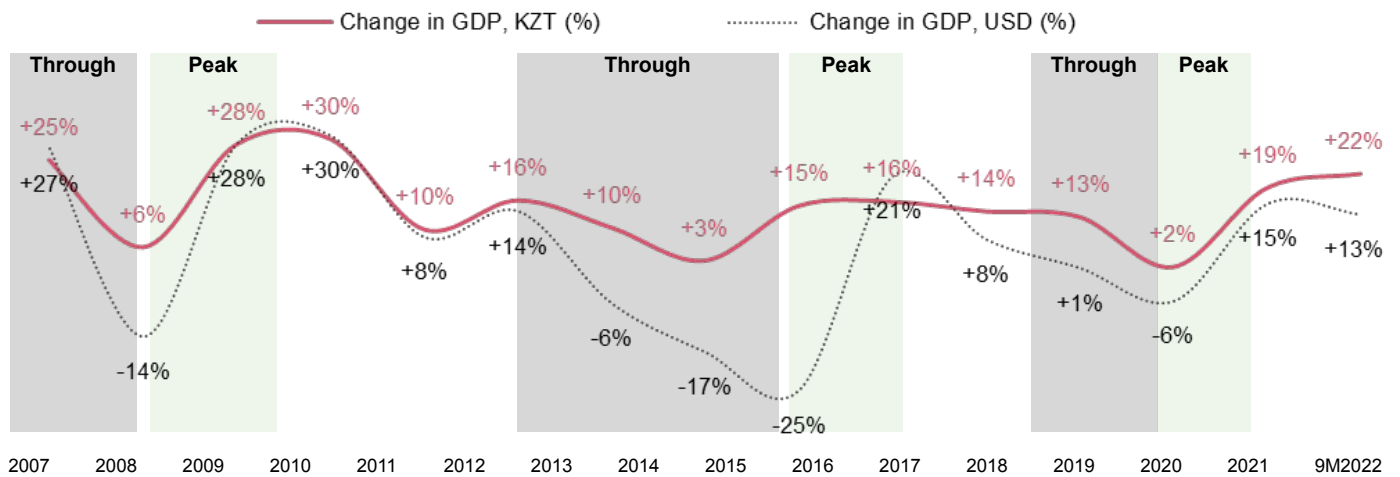
Less than or equal to 14.5%

77% of respondents expect the NBRK base rate to be less than or equal to 14.5% during the next 12 months

Economy and Investment Climate of Kazakhstan

In your opinion, what is the current stage of the economic cycle in Kazakhstan?

Figure 1. Changes in GDP by production method in KZT and USD (%)

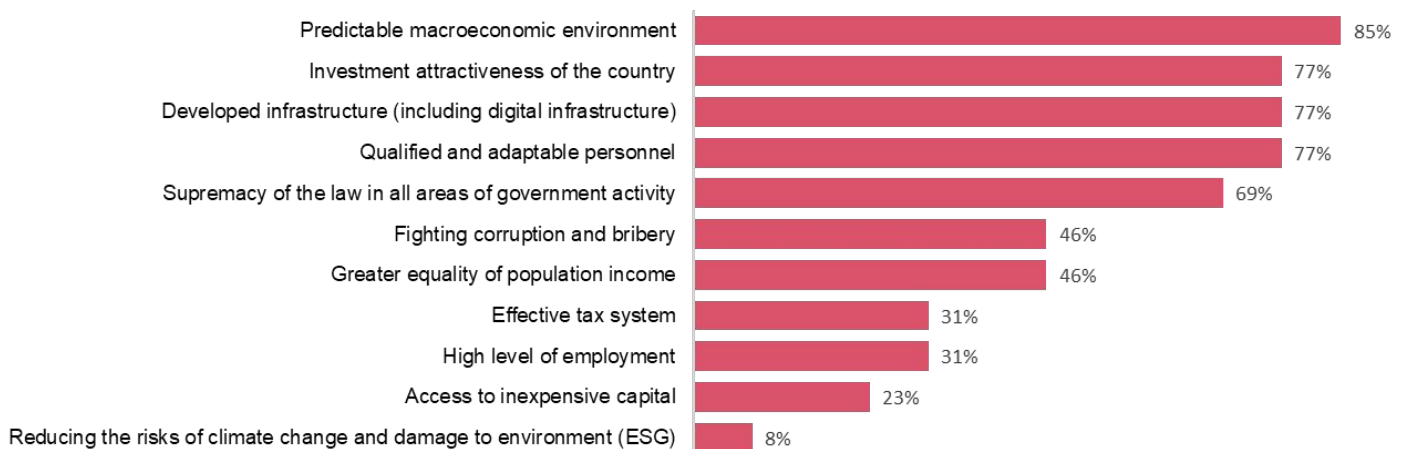


Source: PwC Kazakhstan Macroeconomic Report, Q3 2022. Based on stat.gov.kz data

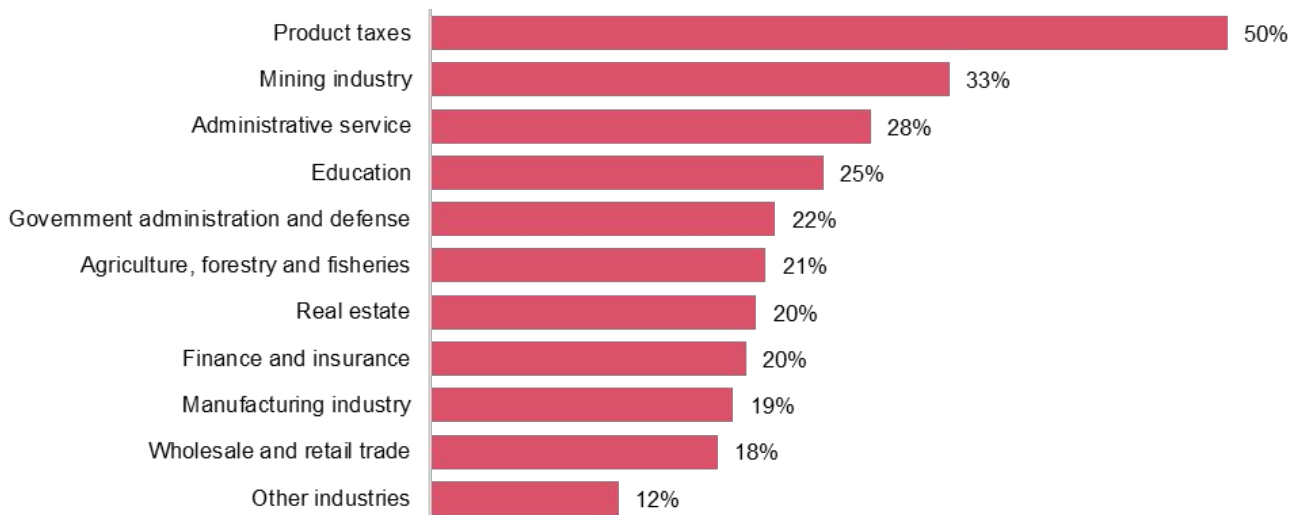
Global events of historical level, both global and local, continue to storm the social, economic and political environment of most countries in the world. Kazakhstan is no exception. Failing to fully recover from the effects of the COVID-19 pandemic, Kazakhstan suffered the tragic January unrest earlier this year. Despite the tragic January events, the active military conflict between Russia and Ukraine remains the main risk and factor determining macroeconomic trends and growth of both the economy of Kazakhstan and the world as a whole. The war in Ukraine has a strong impact on many economies around the world - with similar trends that are reflected in macroeconomic indicators - increasing food and energy prices, disruptions in import-export logistics chains, rising base interest rates etc.

Despite the current situation in the world, most experts believe that the economy of Kazakhstan is at the stage of recovery or is growing (64% of respondents) and only 29% believe that the economy is at the stage of recession or depression. Most experts identified a predictable macroeconomic environment as the most important factor influencing changes in the economy of Kazakhstan, while in previous quarters of 2022, developed infrastructure (including digital) was the most important factor. In addition to the factors shown in Figure 2 below, the experts also note that “diversifying the economy and reducing dependence on imports will also have a positive impact on the country’s economy”.

Figure 2. Factors affecting changes in the economy of Kazakhstan (%)



Source: PwC Kazakhstan Macroeconomic Report, Q3 2022

Figure 3. Changes in Kazakhstan's GDP by economic sectors, % (9M2022/9M2021)

Source: PwC Kazakhstan Macroeconomic Report, Q3 2022. Based on stat.gov.kz data

“The economy of Kazakhstan demonstrates a strong dependence on raw materials, and accordingly, the main drivers are the mining industry and metallurgy. It also has an impact on the economy and the trade sector, however this sector depends on business activity and macroeconomic indicators. Against the backdrop of high inflation and base rates, a slowdown in the economy and business activity is expected. The main driver of GDP growth this year, I believe, was the increase in the cost and production volume of raw materials” - notes the Director of Centras Securities - Marzhan Melanich

Sectors that will have the strongest impact on GDP growth in 2022, according to respondents, still include: mining - 38%, metallurgy, metalworking, engineering - 31%, transport and warehousing - 19%.

In general, the nominal GDP of Kazakhstan increased by 22% over January-September 2022 compared to the same period in 2021, mainly due to higher oil prices. 53% of respondents believe that the increase in nominal GDP of the Republic of Kazakhstan in 2022 will be from 2% (inclusive) to 5% compared to 2021 GDP. The growth of the economy of Kazakhstan in January-October 2022 amounted to 2.5% according to the Minister of National Economy of the Republic, Alibek Kuantirov. He added that “growth in the real sector amounted to 2.8%, and in the service sector - 1.6%”.

The analysis of the development of various economic sectors shows that the majority of respondents (36%) consider the retail sector (including retail e-commerce) the fastest growing (according to the analysis of the retail e-commerce market in Kazakhstan conducted by PwC Kazakhstan, the volume of the retail e-commerce market amounted to 501 billion tenge in the first half of 2022, which is 18% higher than in the first half of 2021), while the slowest growing industries are agriculture and energy (29% and 43% respectively).

“Industrial growth will be driven by ‘geographical determinism’: what we should have had, other things being equal, but didn’t due to some unwritten distribution between PEPs. This factor is disappearing, it is rational to build something in Kazakhstan, with 100% export and close to it” - No name

The analysis of data on imports and exports of the Republic of Kazakhstan shows that total exports increased by 48%, while imports increased by only 16%, which in turn led to a significant increase in the trade balance by 54% for January-September 2022 compared to the same period in 2021. This increase in the positive trade balance to a large extent had an impact on the occurred current account surplus of the country. According to the NBRK, the trade surplus amounted to USD 5.7 billion in January-October 2022, compared to a deficit of USD 3.8 billion in the same period of 2021.

Dialogue with Experts

What is the main driver of money supply growth in Kazakhstan in your opinion?

“

Growth in government spending and the readiness of banks to meet customer loan applications.

- **Sabit Khakimzhanov**
*Advisor to the Chairman
of the National Bank of RK*

“

Consumer lending and government incentives through mortgage programs and benefits.

- **Marzhan Melanich**
*Director of the Analytical Department,
Centras Securities JSC*

Are there alternative ways to fund the budget?

“

Any deficit is financed through an increase in net debt, that is, either through net issuance of debt or through asset sales (NF, privatization). This is not my opinion - this is an accounting fact.

- **Sabit Khakimzhanov**
*Advisor to the Chairman
of the National Bank of RK*

“

I think no. There are several types of budget revenues: tax and non-tax revenues, income from capital transactions. Income growth probably requires stimulating the economy and entrepreneurship.

- **Marzhan Melanich**
*Director of the Analytical Department,
Centras Securities JSC*



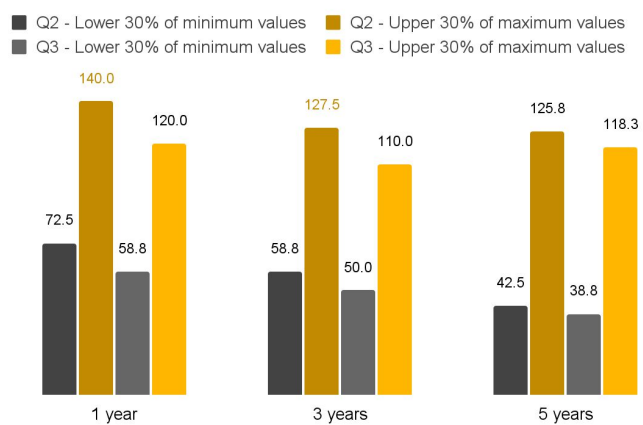
II - BRENT Crude Oil Price Forecasts

In your opinion, what will be the price per barrel of Brent crude oil in US dollars for the forecasted periods?

Figure 4. Forecasted oil prices in US dollars per barrel



Figure 5. Top and bottom forecasted oil prices in US dollars per barrel



Source: PwC Kazakhstan Macroeconomic Report, Q3 2022

The increase in oil prices that occurred at the beginning of the year, provoked by the geopolitical crisis and demand recovering after the pandemic, continues to be the main driver of nominal GDP growth in Kazakhstan: 22% of nominal GDP growth in January-September 2022 compared to the same period in 2021 falls on the mining industry, while maintaining the amount of output in this sector*.

According to the survey results for Q3 2022, the range of expected median, minimum and maximum values for forecast oil prices has decreased in all periods, which reflects the general downward trend in crude oil prices. In a one-year perspective, the medians of the minimum and maximum forecast values decreased by 15% and 14%, respectively; in a three-year perspective by 11% and 18%, and in a five-year perspective by 9% and 14%. According to the interviewed experts, geopolitical risks will have the greatest impact on oil prices in the horizon of one year: the military conflict in Ukraine (including sanctions against Russia) was indicated in 32% of cases and the geopolitical situation in the Middle East (including sanctions against Iran) in 28% of cases.

In Q3 2022, oil prices continued their active fall, which began in June of this year, receiving signals of an impending recession in the form of tightening monetary policy of the world's leading central banks and more frequent cases of COVID-19 in China, the second largest consumer of oil in the world. A fall in monthly average Brent oil prices compared to the same month amounted to 11% in July, and 7% each in August and September, dropping from \$118 per barrel in June to \$91 per barrel in September 2022**.

However, oil prices in Q3 2022 were supported by an increase in demand, which amounted to 99.5 million b/d (an increase of 0.8 million b/d)***, driven by seasonally high fuel consumption and gas substitution in generation in Europe on the background of its high prices. Despite the increase in consumption volumes, the balance of supply and demand in the market formed with a significant excess of 1.6 million b/d, due to the release of strategic reserves of IEA member countries to the market in order to put pressure on supply.

Given the existing surplus to support price quotes, on 5th October 2022 OPEC+ countries agreed to the largest cut in 2.5 years in production by 2 million b/d in November and December 2022 and extended the agreement for 2023. As a result, the Brent crude oil price jumped by 10.2% from \$88.86 a barrel on 3rd October to \$97.92 on 7th October. At the time of writing the report, the average benchmark oil price for October-November was \$93 per barrel.

Sources:

*PwC Kazakhstan Macroeconomic Report, Q3 2022 Based on stat.gov.kz and Bloomberg data

**US Energy Information Administration October Report (EIA)

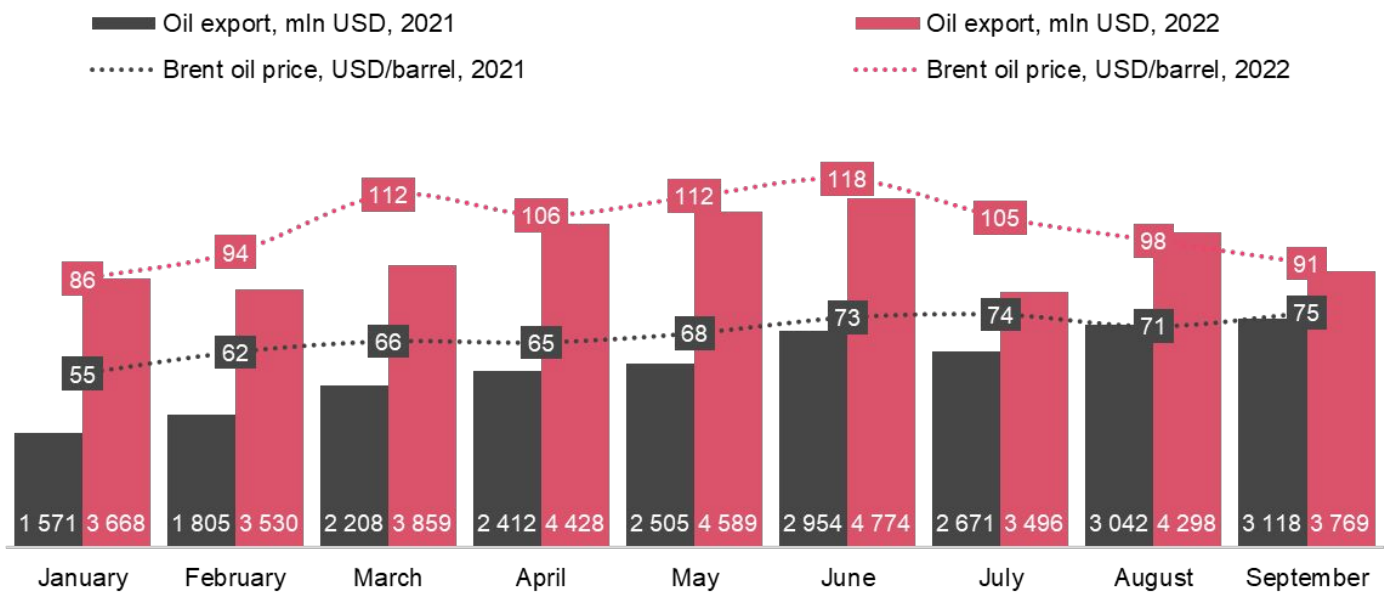
***Fitch Solutions: Kazakhstan Oil & Gas Report

According to the BNS ASPR RK, oil production in Kazakhstan for January-October 2022 amounted to 68.4 million tons, which is 2.5% less than in the same period of the previous year. The backlog in production is due to the suspension of production in August at Kashagan (18.6% of total production in 2021) due to an identified gas leak and planned repairs at the Karachaganak field (14% of total oil production in 2021).

In August, the Head of the Ministry of Energy of Kazakhstan announced a reduction in oil production plans for 2022 from 87.5 million tons to 85.5 million tons, citing export routes and shipping options among the reasons for the decline. The main volume of oil produced in Kazakhstan is exported (79% in 2021), the key threat to increasing oil production remains dependence on the operation of the Caspian Pipeline (CPC), which accounts for more than 2/3 of Kazakhstani crude oil exports. However, on August 22, CPC limited the shipment of Kazakhstani oil for the fourth time in a year by stopping the operation of two out of three single-point mooring (SPM) due to identified malfunctions. Only on November 12, the consortium announced the completion of the repair work at SPM-1 and is preparing to repair SPM-2.

All of the above cases of suspension in production and exports contributed to a 14% decrease in oil exports in Kazakhstan in Q3 2022 compared to the same period of the previous year*. Due to the high vulnerability of Kazakhstan's exports and, consequently, Kazakhstan's production volumes to possible disruptions at the CPC in the absence of comparable alternative routes in the foreseeable future, S&P rating agency downgraded Kazakhstan's sovereign rating from "Stable" to "Negative" in September.

Figure 6. Oil export in Kazakhstan and Brent oil price (CO1 Comdty)



Source: Based on Bloomberg and stat.gov.kz data

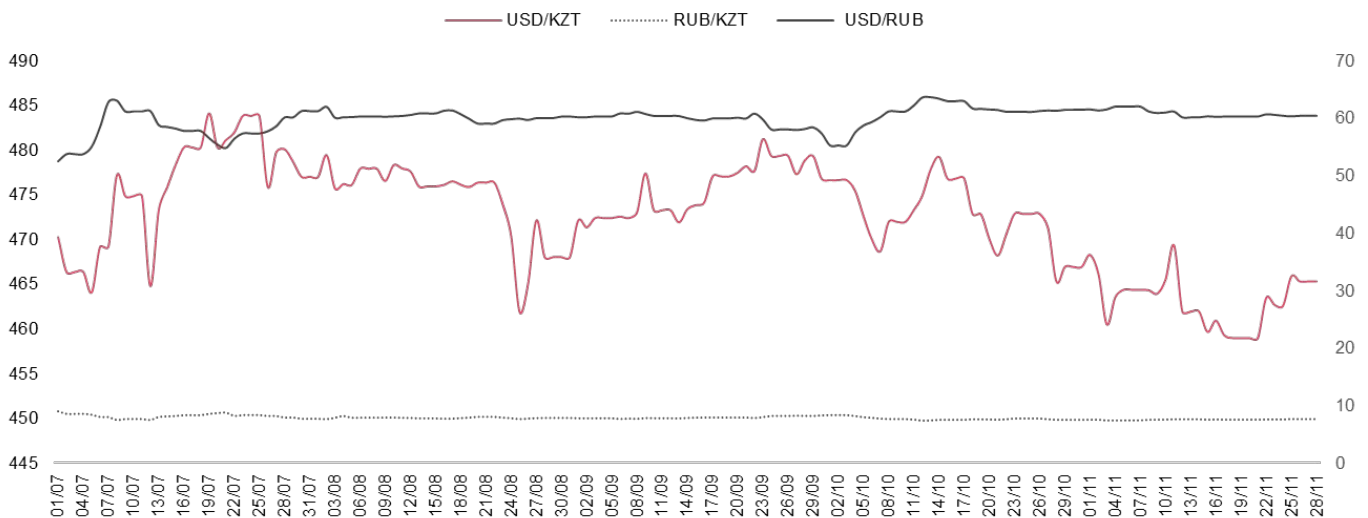
*Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan



III - Exchange Rate Forecasts

Volatility continues to persist in the currency markets of most countries in the world. In September 2022 the focus continued to be on the rise of the US dollar to its 20-year highest value against most currencies. Thus, at the end of September 2022, the DXY dollar index once again updated the price highs, reaching 114.7 p., but already at the end of November, the DXY declined to 105.5 p. This was also reflected in the continued volatility of tenge, which fluctuated from a minimum value of 461.98 tenge to a maximum value of 483.88 tenge per US dollar during the third quarter of this year. However, if we look at the monthly averages of tenge exchange rate, we can see that they remained relatively stable during the third quarter of 2022, remaining at an average level of 474.6 tenge per US dollar. This signals that after the macroeconomic and geopolitical shocks experienced at the beginning of the year, the tenge exchange rate gradually stabilized during the third quarter, showing a growing trend against the US dollar in October-November of this year.

Figure 7. Dynamics of KZT rate against USD and RUB for the period from July 1 to November 27, 2022



Source: PwC Kazakhstan Macroeconomic Report, Q3 2022. Based on *NBRK* and *Bank of Russia* data.

The dynamics of KZT/RUB exchange rate showed more significant volatility compared to USD exchange rate. In early July, tenge weakened against RUB to 8.98, but by the end of August it appreciated to 7.70 with an average volatility of 2.67%. In general, considering the dynamics of changes in the exchange rates of USD/KZT, RUB/KZT and USD/RUB, it can be noted that tenge remains extremely volatile throughout 2022.

Out of the internal factors in the current period, we can single out the last tax week of 2022, which took place in August and influenced the temporary strengthening of tenge. This is also reflected by a sharp drop in the USD/KZT rate by 4.5% from 483.88 tenge on July 25 to 461.98 tenge at the end of August.

In general, considering the currency purchase dynamics in Kazakhstan’s exchange market, it can be noted that the instability of the foreign exchange market has a significant impact on the volume of purchased currencies. According to the Kazakhstan Stock Exchange KASE, the share of the volume of US dollars purchased for tenge fell from 97.3% in January-October 2021 to 68.9% for the same period in 2022. At the same time, the share of the volume of RUB purchased for tenge increased from 1.6% in January-October 2021 to 10.2% in 2022. The share of Euro purchased for US dollars also increased from 0.3% in January-October 2021 to 16.8% in 2022. This probably reflects a growing tendency to diversify the currency package.

III Exchange Rate Forecasts: USD/KZT

In your opinion, what values of the USD/KZT exchange rate are assumed to be the most significant for the forecasted periods?

In Q3 2022, despite the increase in energy prices, there is a depreciation of tenge against US dollar. According to the official NBRK exchange rate, in June the tenge rate depreciated to 470.24 tenge per dollar, or by 13.3%. In general, tenge dynamics is in line with the global trend: the strengthening of the US dollar due to the growth in yields of government bonds (US GS) put pressure on many currencies. The weakening of tenge was also affected by a decrease in supply against the backdrop of an increase in demand for the dollar currency. The decrease in the supply of US dollars is associated with a decrease in its sales by exporters, who at the end of May realized foreign exchange earnings for quarterly tax payments, which affected the decrease in the volume of currency in the market in June. The growth in demand was largely due to the start of dividend payments by KASE index companies, which in April-May 2022 announced decisions on dividend payments based on the results of 2021.

July and August 2022 were a relatively stable period for tenge. At the end of August, the tenge exchange rate strengthened to 465 tenge per dollar, including as a result of the aforementioned last tax week of the current year. The strengthening of tenge continued in October: at the end of October, tenge appreciated by almost 2% compared to the rate at the end of September. The main reasons were the rise in oil prices and the increase in foreign exchange earnings of Kazakhstani producers. The increase in the base rate and the sale of currency by the subjects of the quasi-public sector also supported tenge. Thus, the weighted average USD rate in November was 463 tenge.

Figure 8. Forecasted USD/KZT exchange rates

■ Q2 - Median of minimum values ■ Q2 - Median of maximum values
 ■ Q3 - Median of minimum values ■ Q3 - Median of maximum values

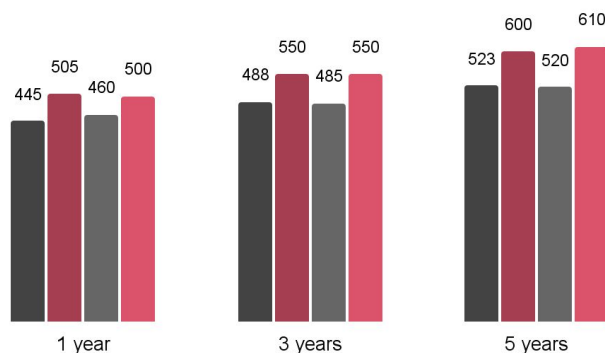
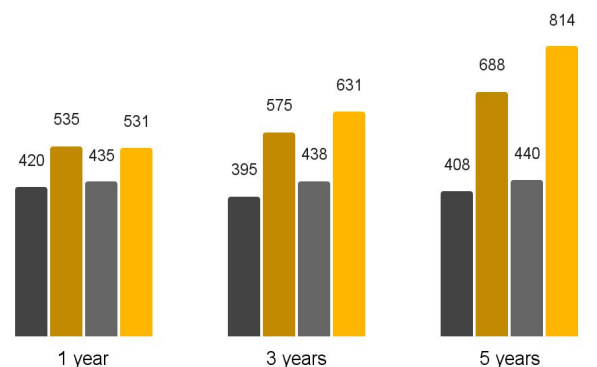


Figure 9. Top and bottom forecasted exchange rates

■ Q2 - Lower 30% of minimum values ■ Q2 - Upper 30% of maximum values
 ■ Q3 - Lower 30% of minimum values ■ Q3 - Upper 30% of maximum values



Source: PwC Kazakhstan Macroeconomic Report, Q3 2022

Respondents' forecasts for the third quarter of 2022 regarding the USD/KZT currency pair in the short term remained approximately at the level of the second quarter: the median of the maximum values remained almost did not change in the horizon of one year and three years. However, in the long term, respondents' forecasts in the third quarter became less optimistic compared to the survey results for the previous quarter: the median of the maximum values increased by 10 tenge or 2% to 610 tenge. In relation to the median minimum values, there is a slight increase in the horizon of one year by 15 tenge or 3% - up to 460 tenge, while the forecasts for the horizons of 3 and 5 years remained the same.

Compared to the previous quarter, the values of the upper limit of the USD/KZT currency pair decreased by 0.7% in the one-year horizon to 531, but increased by 10% in the three-year horizon to 631, and by 18% to 814 in the five-year horizon. It should be noted that the lower limit of the predicted values also increased: in the horizon of one year - by 3.6%, in the horizon of three years - by 11%, in the horizon of five years - by 8%.

III Exchange Rate Forecasts: USD/RUB

In your opinion, what values of the USD/RUB exchange rate are assumed to be the most significant for the forecasted periods?

In Q3 2022, the USD/RUB currency pair was also characterized by a weakening after the strengthening of Russian Ruble in Q2 2022, which was caused by the abolition of the budget rule and a drop in imports, which reduced the demand for dollars on the exchange. At the same time, the demand for rubles increased due to the increase in oil prices and the rule of selling 50% of foreign exchange earnings by exporters, as well as the quarterly payment of taxes.

According to the Central Bank of the Russian Federation, the USD exchange rate increased by 17% in July from 52.5 rubles at the beginning of July to 61.3 by the end of July. The weakening of the ruble was caused by an increase in imports, as well as the corresponding decision of the government of the Russian Federation to weaken the ruble through the purchase of currencies of friendly countries and an indirect impact on the value of the dollar through cross rates. So, in July, Russia began to actively buy up the yuan, which led to a sharp rise in USD. By the end of July, the daily trading volume in the yuan/ruble pair on the Moscow Exchange set a record, exceeding 70 billion rubles.

In August and September 2022, the dollar exchange rate remained in the range of 60.1-61.4 rubles. At the end of September, the ruble also appreciated by more than 3% to 58.45 rubles, which was affected by the inflow of export earnings and restrictions on capital movements. Also, the demand for dollars fell sharply due to the risks of a possible blocking of currency trading on the Moscow Exchange in the event of US sanctions against the National Clearing Center.

In October and November 2022, the dollar exchange rate returned to the mark in the range of 60.2-61.5 rubles.

Figure 10. Forecasted USD/RUB exchange rates

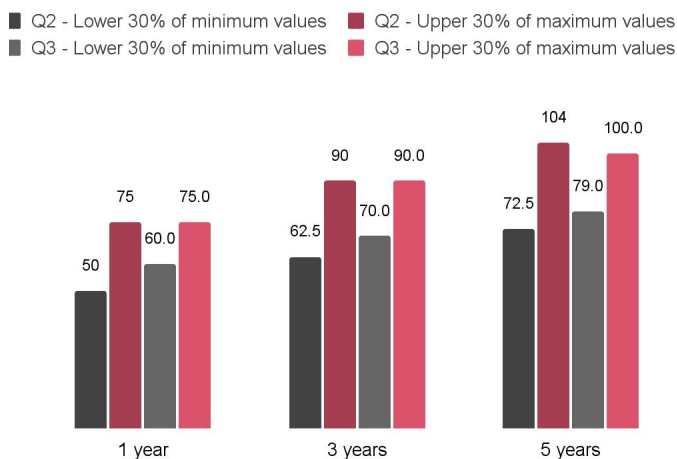
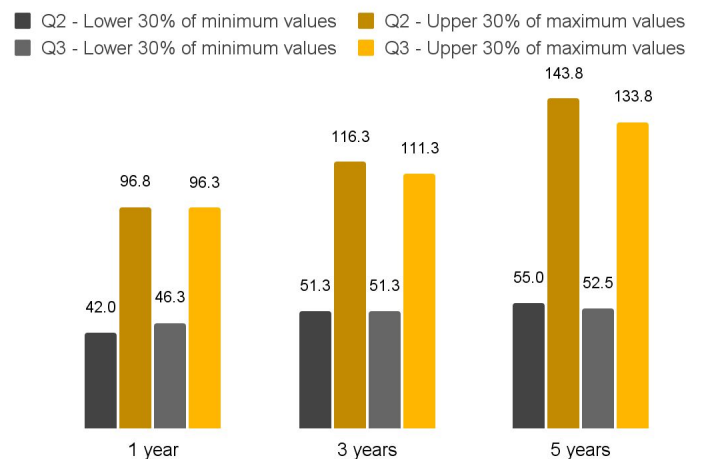


Figure 11. Top and bottom forecasted exchange rates



Source: PwC Kazakhstan Macroeconomic Report, Q3 2022

When comparing the survey results for the second and third quarters of the current year, one can see that the respondents' forecasts regarding the USD/RUB pair have stabilized compared to the forecasts in the second quarter. Compared with the second quarter of 2022, the median of the minimum value increased for all periods: for the horizon of one year by 10 rubles - up to 60, for the three years by 7.5 rubles - up to 70, and for the horizon of five years by 6.5 rubles - up to 79. The median of the maximum value in the horizons of one year and three years did not change and remained at the same levels, and for the horizon of five years it decreased by 4 rubles to 100.

Compared to the previous quarter, the values of the upper limit of the USD/RUB currency pair slightly decreased in the horizon of all periods: by 0.5% for the horizon of one year (96.3), by 4% for the horizon of three years (111.3) and by 10% to 133.8 in the horizon of five years. It should be noted that the bottom limit of the predicted values in the horizon of one year increased by 10%, while bottom limits for the horizons of three and five years remained approximately at the same level.

IV - Consumer Price Index

In your opinion, what inflation indicators (in particular, the consumer price index-CPI) in Kazakhstan are most likely for the forecasted periods?

The pandemic started global inflationary pressures by disrupting supply chains, increasing production costs, and stimulating the economy of many countries through monetary easing. As you can see in Figure 15, since mid-2020, there has been a strong increase in inflation in both developed and developing economies. Growth also continued due to the military conflict in Ukraine, which continues to destabilize the global economy. The humanitarian crisis has led to an increase in housing and fuel prices in Europe, and hinders the growth of economic activity. Thus, in 2022, the highest inflation growth was observed in developed economies since 1982, and in Kazakhstan, the inflation rate reached its 15-year peak (since 2007).

Continued barriers to economic activity are also reflected in the decline of experts' forecasts regarding economic growth. The high level of uncertainty reinforces persistent expectations of rising inflation. Despite the fact that the results of a survey of experts in Q3 2022 regarding CPI values showed that 64% of respondents expect that the inflation rate in the horizon of one year will not exceed 15% on average, in the horizon of three years more than 80% of experts expect that value will not exceed 12%. While in the horizon of five years, more than 70% of respondents believe that the value of inflation will be below 10% instead of the expected 8% in the second quarter.

Q3 2022 survey results, compared to the previous one, reflected more optimistic expectations of respondents. In the short term, respondents lowered their expectations of a maximum headline for inflation, followed by a decline in the long term. In the horizon of all periods, respondents' expectations regarding the bottom threshold of median inflation values slightly decreased: one year - by 1.3%, three years and five years - by 0.3%. The increase in the base rate could have contributed to the slowdown in inflation growth expectations.

Figure 12. Median CPI forecasts, %

■ Q2 - Median of minimum values ■ Q2 - Median of maximum values
 ■ Q3 - Median of minimum values ■ Q3 - Median of maximum values

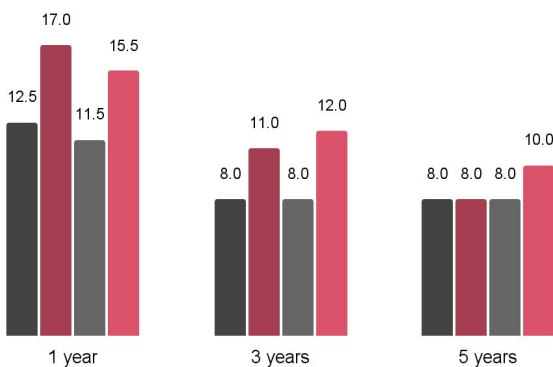
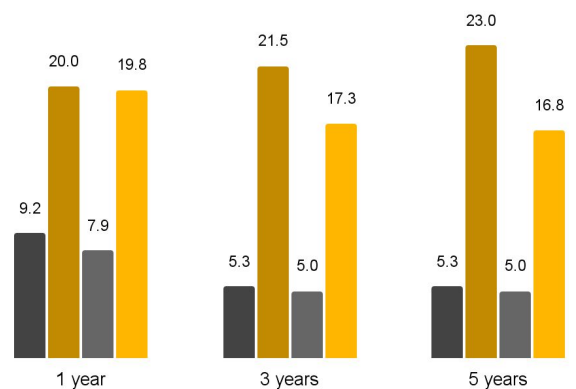


Figure 13. Upper and lower CPI forecasts, %

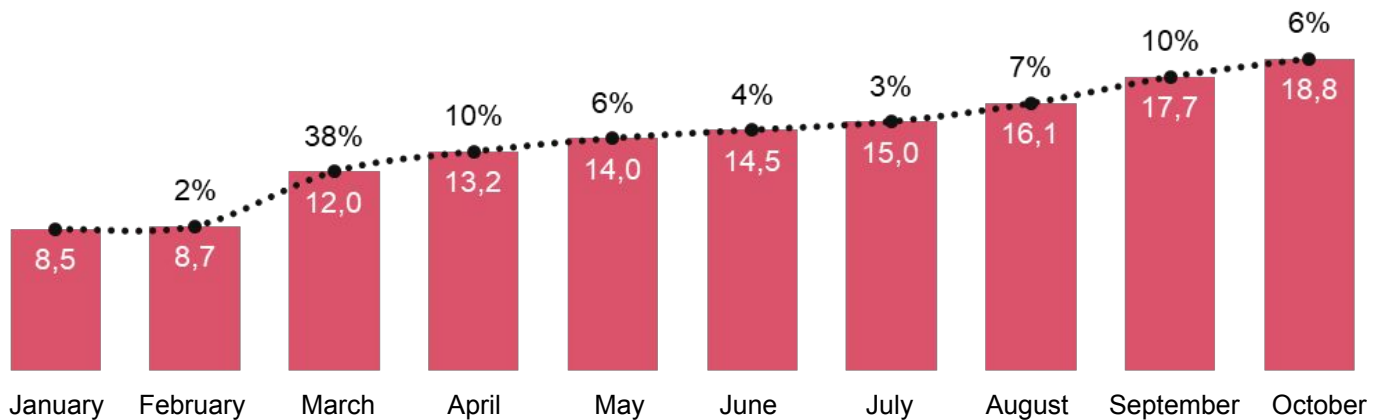
■ Q2 - Lower 30% of minimum values ■ Q2 - Upper 30% of maximum values
 ■ Q3 - Lower 30% of minimum values ■ Q3 - Upper 30% of maximum values



Source: PwC Kazakhstan Macroeconomic Report, Q3 2022



Figure 14. Dynamics of changes in annual inflation by months, %



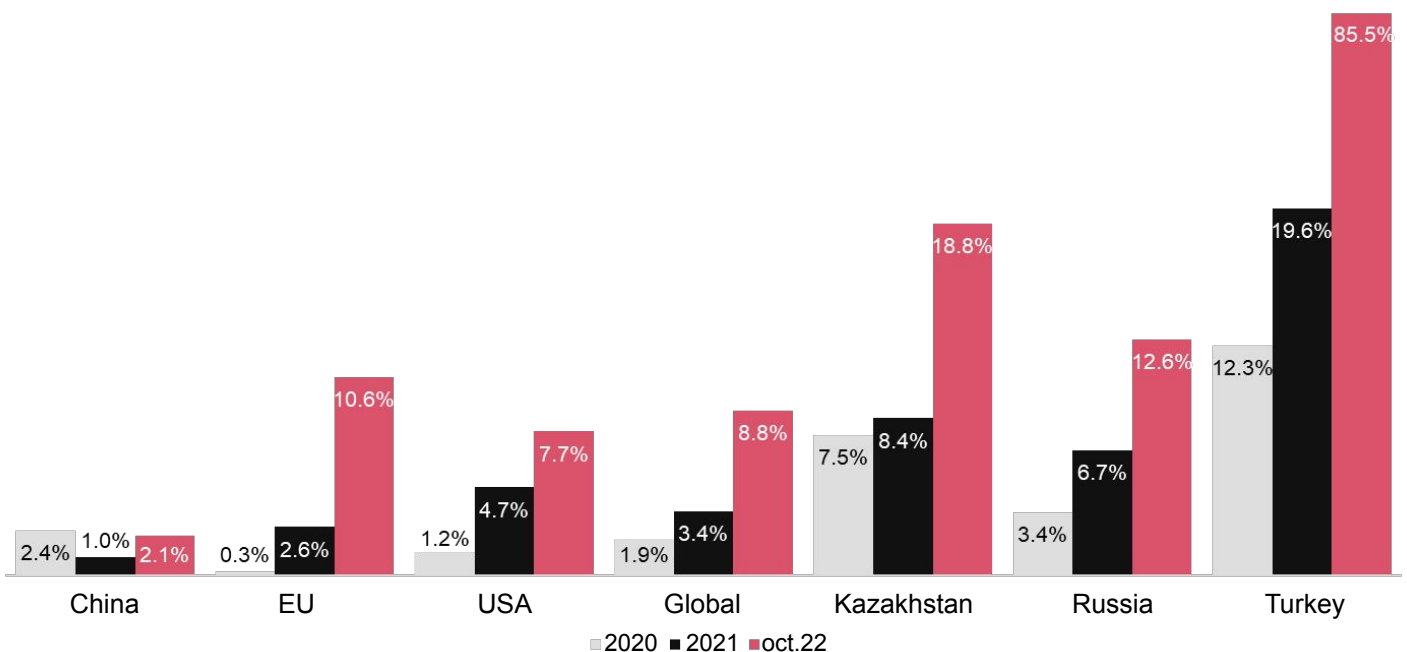
Source: Based on stat.gov.kz data

Since March 2022, inflation has been in double digits, which directly affects the income of the population and growing social inequality. The current situation affects the entire population of the country, but especially the low-income strata of the population (those strata in which more than half of their spending falls on consumer spending). In Q2 2022, the share of the population with incomes below the subsistence level (60 thousand tenge) increased by 11% compared to the previous quarter and amounted to 5.1%.*

“The state will introduce a new methodology for determining the minimum wage, which will allow it to be gradually increased. I have decided to raise the minimum wage from 60 to 70 thousand tenge. This will directly affect the incomes of 1.8 million citizens”, - President of Kazakhstan Kassym-Jomart Tokayev.

According to the results of the second quarter of 2022, in Kazakhstan, food products account for an average of 51% of consumer spending and 49% of average household income.* The set of goods and services consumed by people with low and high incomes differ even in a period of rapidly growing inflation, essential goods rise in price faster. The level of the consumer products index is growing at a moderate pace, reaching an annual inflation rate of 23.1% in October 2022 compared to the same period in 2021. Annual inflation of paid services reached 13.5% in October 2022. These values are 15-year highs since the mortgage crisis in 2007.*

Figure 15. Dynamics of annual inflation in the world, %



Source: Based on [Trading Economics](https://www.tradingeconomics.com), stat.gov.kz and [International Monetary Fund](https://www.imf.org) data

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Figure 16. Dynamics of monthly median salary

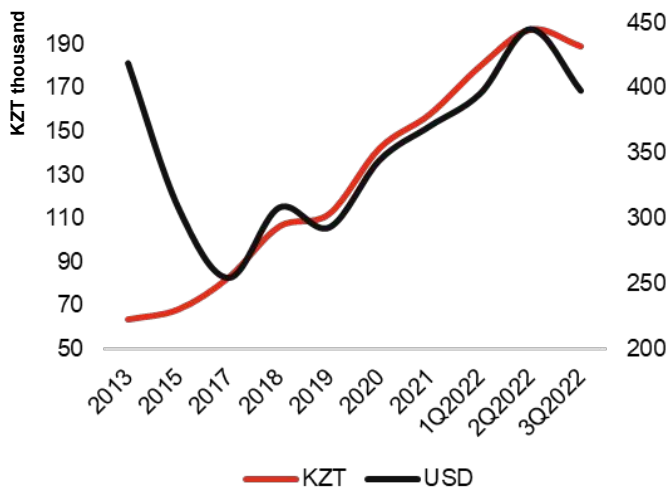
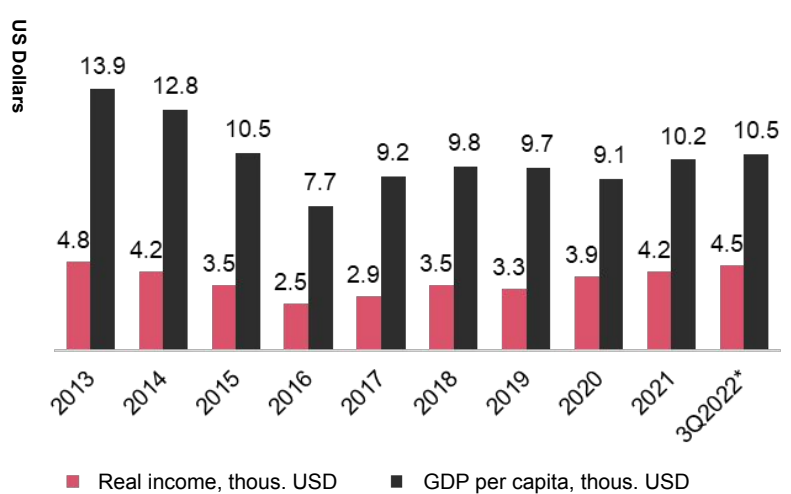


Figure 17. Indicator of the real well-being of the population



Source: Based on stat.gov.kz data

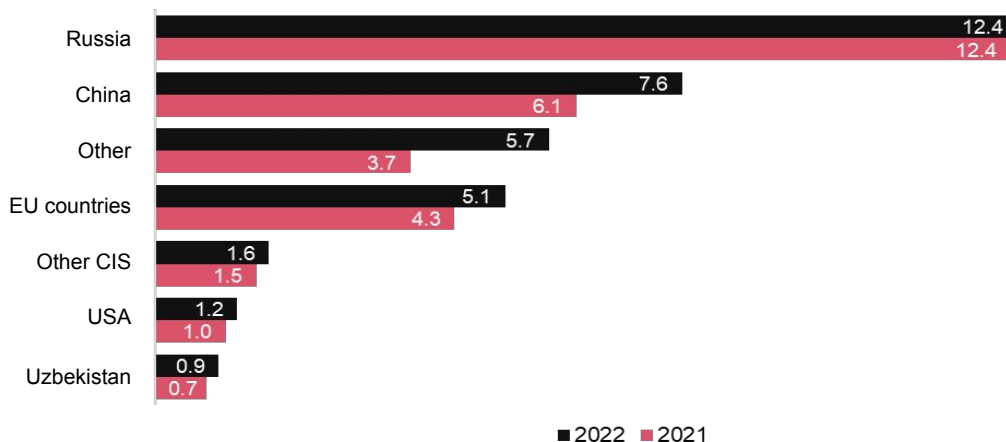
* S&P Global Ratings expectations were used to calculate 2022 GDP

Following the increase in inflation, there is also an increase in the average wage. Thus, the level of median wages for the third quarter in Kazakhstan increased by 7% compared to the end of 2021 but decreased by 11% compared to the previous quarter. In dollar terms, the median salary in 2022 reached the level of 2013 (before the tenge devaluation in 2014). However, the solvency of the population has not reached the level of the end of 2013, when the level of spending on food products was 43% of all consumer spending and 42% of household cash income, while in 2022 the shares of spending on consumer goods were 51% and 49% respectively.**

Continued exchange rate volatility also has a strong impact on prices: consumers pay more to buy the same imported products, and firms that rely on imported materials in their manufacturing processes face higher production costs.

It is interesting to note that Russia continues to take the bulk of imports, as shown in Figure 18, while the national currency depreciated by 54% against the Russian Ruble from 5.0 tenge per ruble on March 1 to 7.7 tenge on November 28, 2022. At the same time, the nominal amount of imports from Russia was \$12.4 billion and did not change significantly from 2021, but its share of total imports decreased from 42% in 2021 to 36% in 2022. The imposed sanctions on Russia and the rise in the price of Russian imports have led to partial import substitution of some goods and materials for alternative products from other countries.

Figure 18. Dynamics of changes in imports to Kazakhstan, billion US dollars



Source: Based on stat.gov.kz data

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IV - NBRK Base Rate

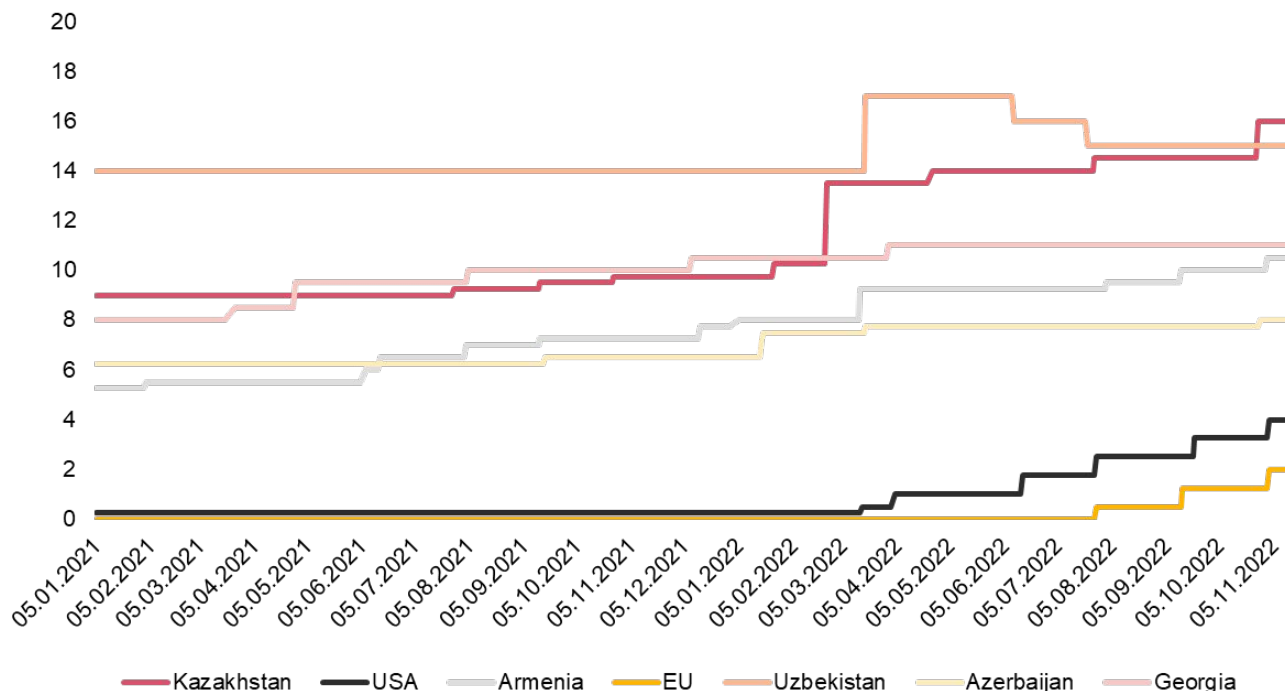
In your opinion, what NBRK base rate values are most likely for the time horizons under consideration?

Central banks around the world continue to raise the base rate, on October 26, 2022, the NBRK decided to raise the rate to 16%, which is a 7-year peak since 2015. As IMF analysts note, in such an unstable economic situation in the world, there are risks of both insufficient and excessive tightening of monetary policy. Insufficient tightening would further bolster inflation and worsen public expectations, which would only increase the cost of controlling inflation, while excessive tightening could leave financial markets unable to cope with the rapid pace of tightening.

The slowdown in the economy and the resulting financial instability creates the need for a turn towards easing monetary policy, but most central banks continue to curb inflation. At such moments, the state is set to support socially vulnerable segments of the population through fiscal policy, increasing government spending and increasing the money supply, which leads to a higher cost of curbing inflation.

According to the NBRK comments: “Stronger fiscal stimulus is a significant source of pro-inflationary pressure in the economy. This is expressed through the impact of fiscal policy on the growth of the money supply (M3), which has grown by 7.9% or 2.4 trillion tenge since the beginning of the year. In 2022, state budget expenditures are formed significantly higher than last year. Growth for 9 months of 2022 amounted to 18.9% in annual terms. The outstripping growth of budget expenditures in the current year requires a compensatory response from the monetary policy of the National Bank.” Analysts at the Economist Intelligence Unit estimate that the budget deficit in 2022 will be 3.9% of GDP, while spending will increase from 21.9% in 2021 to 22.5% of GDP in 2022.**

Figure 19. Base rate dynamics in the world, %

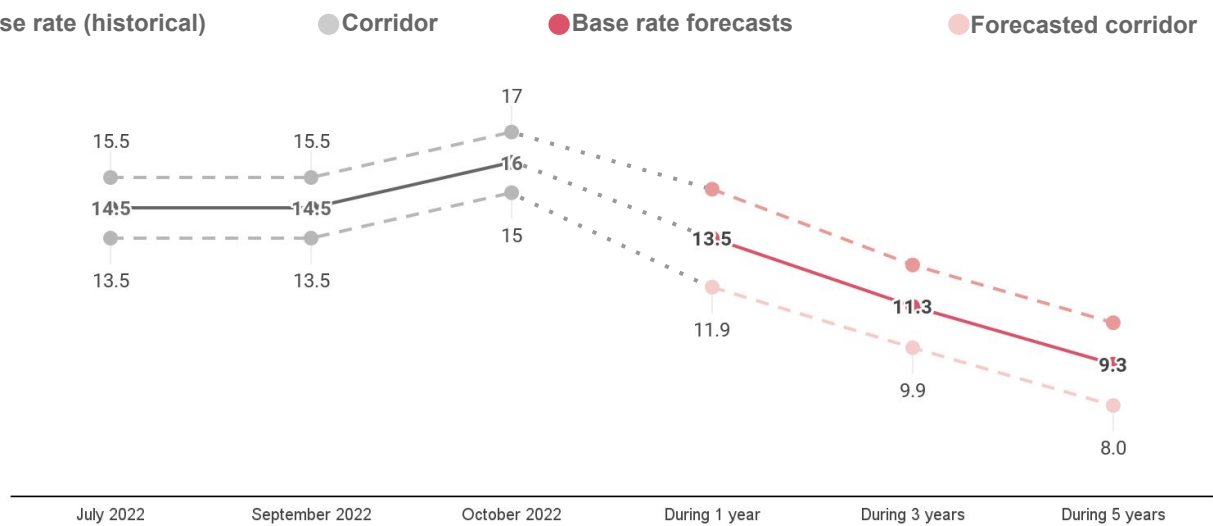


Source: Based on *Trading Economics* u *stat.gov.kz* data

*Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan

***Economist Intelligence Unit*

Figure 20. Changes in expectations for the NBRK base rate

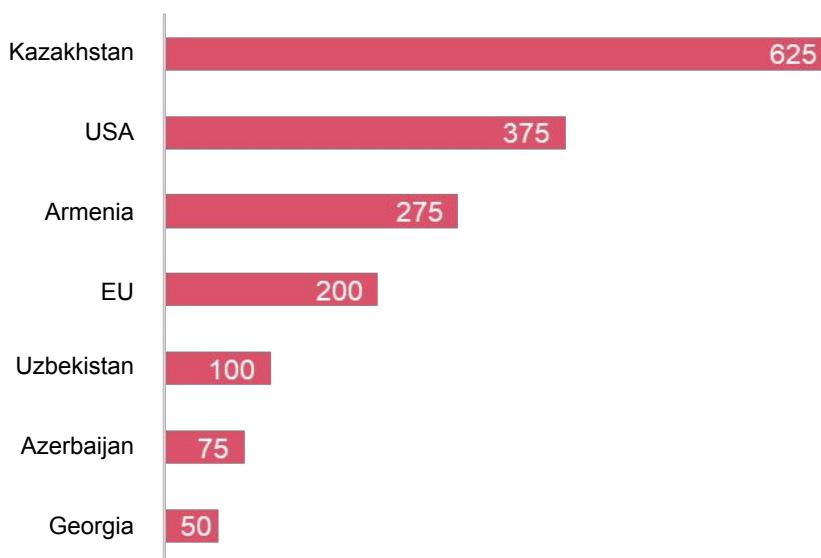


Source: PwC Kazakhstan Macroeconomic Report, Q3 2022 and NBRK

The survey results for the third quarter show that experts expect a slight decrease in the base rate compared to the current value set on October 26, 2022 at 16.0%. Thus, in the perspective of one year, the respondents predict the value of the base rate at the level of 13.1%, which is lower by 0.8% than the experts' expectations in the previous report for the first half of the year. Tighter-than-expected financial conditions could trigger debt and external stresses, as well as risks to financial stability.

According to the figure below, you can see that Kazakhstan accounts for the largest change in the base rate of the selected economies for the period from January to November 2022 inclusive.

Figure 21. Change in the base rate in the world during the period from 1st January - 28th November 2022, basis points



Source: Based on Trading Economics and stat.gov.kz data



Summary Table of Indicators

Section	Indicator	Period	Q2-21	Q3-21	Q4-21	Q1-22	Q2-22	Q3-22
Oil price	the median of minimum values	1 year	57.0	60.0	68.0	77.5	83.5	77.5
		3 years	54.5	53.5	60.0	62.5	75.0	65.0
		5 years	56.0	50.0	50.0	52.5	60.0	50.0
	the median of maximum values	1 year	71.0	77.5	90.0	105.0	120.0	103.5
		3 years	72.5	80.0	85.0	92.5	100.0	100.0
		5 years	75.0	80.0	85.0	80.0	100.0	90.0
	bottom 30% of minimum values	1 year	45.0	45.0	51.7	66.3	89.3	58.8
		3 years	39.0	42.0	46.7	52.5	81.0	50.0
		5 years	35.0	40.0	40.0	41.3	79.3	38.8
	top 30% of maximum values	1 year	77.8	85.0	101.7	117.5	109.5	120.0
		3 years	79.0	89.0	118.3	118.0	98.3	110.0
		5 years	88.0	99.0	123.3	126.3	98.8	118.3
USD/KZT exchange rate	the median of minimum values	1 year	420.0	422.5	420.0	425.0	445.0	460.0
		3 years	430.0	432.5	430.0	445.0	487.5	485.0
		5 years	440.0	440.0	440.0	460.0	522.5	520.0
	the median of maximum values	1 year	445.0	450.0	446.0	450.0	505.0	500.0
		3 years	463.0	490.0	480.0	500.0	550.0	550.0
		5 years	493.0	500.0	500.0	550.0	600.0	610.0
	bottom 30% of minimum values	1 year	407.8	408.0	412.0	402.5	420.0	435.0
		3 years	413.4	404.0	407.0	407.5	395.0	438.0
		5 years	413.6	404.0	400.0	397.5	407.5	440.0
	top 30% of maximum values	1 year	470.6	490.0	517.0	507.5	535.0	483.0
		3 years	522.2	565.0	640.0	557.5	575.0	501.0
		5 years	572.8	640.0	743.0	687.5	687.5	513.0
RUB/KZT exchange rate	the median of minimum values	1 year	5.5	5.6	5.6	5.3	6.0	6.0
		3 years	5.5	5.6	5.7	5.4	5.3	5.0
		5 years	5.5	5.6	5.7	5.4	5.0	5.0
	the median of maximum values	1 year	6.0	6.0	6.4	6.0	9.3	8.0
		3 years	6.2	6.2	6.5	6.2	8.3	8.0
		5 years	6.2	6.1	6.4	6.5	7.8	8.0
	bottom 30% of minimum values	1 year	5.1	5.2	5.3	5.0	4.0	4.8
		3 years	4.9	5.3	5.2	4.9	3.7	4.0
		5 years	4.8	5.2	5.0	4.5	3.8	3.5
	top 30% of maximum values	1 year	6.1	6.2	7.0	6.3	10.5	7.2
		3 years	6.8	6.7	7.9	6.7	11.2	6.1
		5 years	7.4	6.9	8.7	6.8	12.1	5.8

Summary Table of Indicators

Section	Indicator	Period	Q2-21	Q3-21	Q4-21	Q1-22	Q2-22	Q3-22
USD/RUB exchange rate	the median of minimum values	1 year	71.0	70.0	70.0	71.5	50.0	60.0
		3 years	71.0	71.0	70.0	73.5	62.5	70.0
		5 years	73.0	75.0	75.0	75.0	72.5	79.0
	the median of maximum values	1 year	79.0	77.0	75.0	82.0	75.0	75.0
		3 years	80.0	80.0	80.0	85.0	90.0	90.0
		5 years	83.5	84.0	83.0	89.5	104.0	100.0
	bottom 30% of minimum values	1 year	66.2	67.0	65.0	66.0	42.0	46.3
		3 years	66.2	64.8	64.0	65.8	51.3	51.3
		5 years	65.7	64.4	63.0	65.5	55.0	52.5
	top 30% of maximum values	1 year	81.0	81.0	82.0	92.5	96.8	67.5
		3 years	87.4	86.8	85.0	97.5	116.3	72.0
		5 years	93.0	94.4	93.0	111.3	143.8	75.0
CPI expectations	the median of minimum values	1 year	6.0	7.0	7.5	7.5	12.5	11.5
		3 years	5.0	5.0	6.0	6.0	8.0	8.0
		5 years	4.4	4.5	5.0	6.0	8.0	8.0
	the median of maximum values	1 year	7.5	8.4	8.9	9.5	17.0	15.5
		3 years	6.5	7.3	8.0	8.8	11.0	12.0
		5 years	6.0	6.8	7.0	8.5	8.0	10.0
	bottom 30% of minimum values	1 year	4.1	5.7	5.3	6.5	11.7	7.9
		3 years	3.2	4.6	4.2	5.3	6.5	5.0
		5 years	2.8	3.9	3.7	5.3	6.5	5.0
	top 30% of maximum values	1 year	12.2	11.1	11.2	10.8	14.4	19.8
		3 years	12.3	10.8	11.3	11.0	8.4	17.3
		5 years	13.4	10.6	15.7	12.1	6.3	16.8
Base rate expectations	Base rate	1 year	8.6	8.6	8.6	10.8	13.9	13.5
		3 years	7.8	7.8	7.8	9.2	10.8	11.3
		5 years	7.2	7.2	7.2	8.1	8.9	9.3
	Corridor	1 year	1.1	1.1	1.1	0.9	1.5	1.6
		3 years	1.0	1.0	1.0	1.0	1.2	1.4
		5 years	1.0	1.0	1.0	1.1	1.3	1.4

Acknowledgements

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