



Quarterly Macroeconomic Report

Expert Survey Results Q1-Q2 2022

Important Note

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

The survey centers on projections of the following macroeconomic indicators in time horizons of one to five 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 participants' 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 twice, for the first quarter in mid-February, and for the second quarter in mid-July 2022. All forecasted values, as well as text materials presented in the report for the Q1-Q2 2022 reflect the macroeconomic situation in Kazakhstan and in the world, taking into account the events that occurred in the first half of 2022.



Introduction



Natalya Lim

Partner,
Eurasia Advisory Leader

*2022 anticipated all expectations and forecasts. “To be or not to be” is no longer a question. Utopian thoughts have become close reality. The quote chosen for this issue is **“love one another, but let’s try not to possess one another”** from Paulo Coelho’s controversial novel “Eleven Minutes”. Perhaps, we should act this way everywhere: in politics, in economics and in life-and then we might save our world...*

The post-COVID-19 world has provided us with an unprecedented opportunity to correct the course of our economies and create stronger and better versions of our societies. And everyone has a role to play in this new consciousness. In our regular Macroeconomic Report for Q1-Q2 2022, we explore the performance of Kazakhstan's macroeconomic environment where leaders, investors and politicians make their decisions to create a new vision to strengthen and develop the economy.

Collectively, the situation in Ukraine and the sanctions against Russia bring a huge dose of uncertainty and instability to economic decision-making, therefore heightening risks for global outlook. Energy prices have already risen, while the conflict is jeopardizing supply chains, and these are factors that could boost inflation and dampen economic growth. Central banks around the world are raising rates to curb the inflation, but the mechanism has launched, and if you imagine that this is a train, then it is only gaining momentum. The ESG agenda may take the back seat as everyone needs cheap electricity, but every decision entails a responsibility. By solving the current needs of the population, we will sacrifice the future of humanity. Against this background, even greater uncertainty is created for the prospects of the global economy growth. Moreover, since the 1962 Caribbean Crisis, the world has never been so close to a nuclear war...

We bring to your attention the eighth issue of the Quarterly Macroeconomic Report for Q1-Q2 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

Table of Contents

Survey Methodology	p. 6
Key Findings	p. 7
I Economy and Investment Climate of Kazakhstan	p. 8
II BRENT Crude Oil Price Forecasts	p. 11
III Exchange Rate Forecasts	p. 13
IV Inflation and NBRK Base Rate Forecasts	p. 17
Summary Table of Indicators	p. 23
Acknowledgements	p. 25
Contact Information	p. 26

Survey Overview and Objectives

Twelve 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.

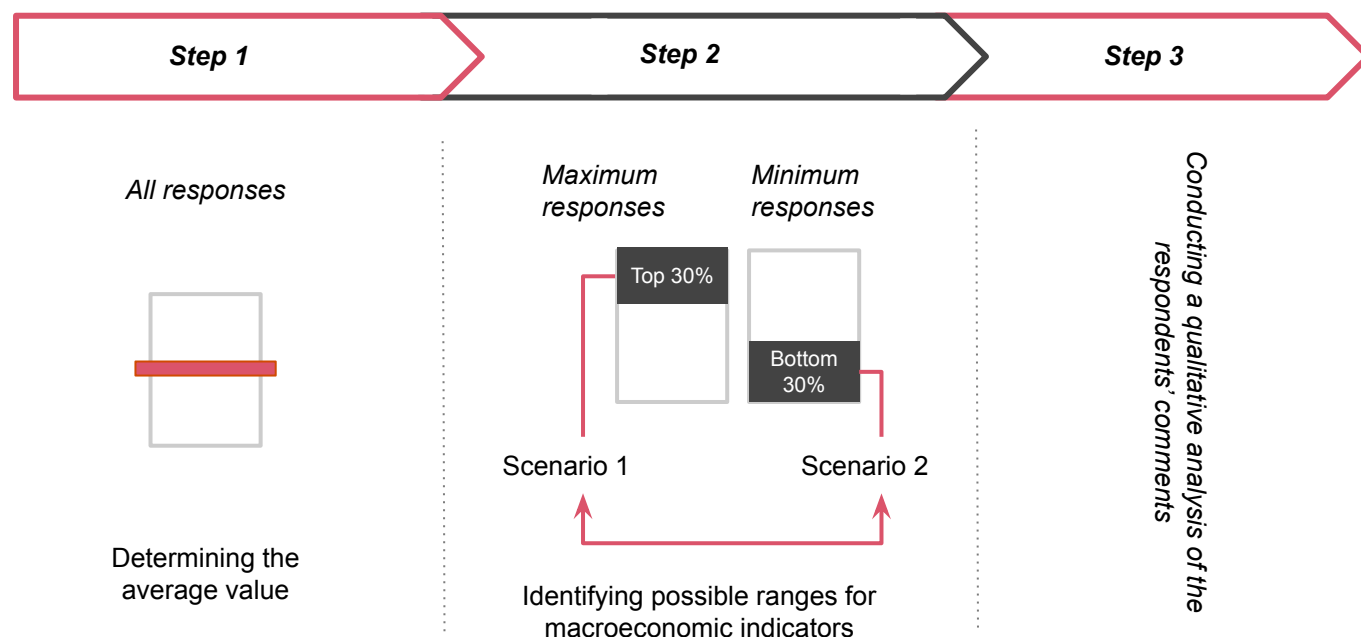
Conducted regularly, such analyses can improve the quality of computational models commonly used and facilitate a more flexible response to dynamic changes in the economic environment. In our practice, we have encountered situations when computational models, despite high levels of detailing and elaboration, 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 twice: for the first quarter in mid-February and for the second quarter in mid-July 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.



To calculate the population's real well-being indicator, we estimated the real income of the population using the median wage and the percentage of the employed population in Kazakhstan (Real income = median wage x % of employed population x 12 months).

Key Findings:

Kazakhstan's Economy

Page 8

Stage of “recovery and growth”

75% of respondents believe that Kazakhstan is at the stage economic recovery and growth

Oil Prices

Page 11

Above \$120 per barrel

66% of respondents expect the price of Brent oil to be above \$120 per barrel during the year

Exchange Rates

Page 13

Up to 510

55% of respondents expect the USD/KZT rate to be no higher than 510 during the year

Inflation (CPI)

Page 17

Less than or equal to 17%

92% of respondents expect inflation during the year to be less than or equal to 17%

NBRK Base Rate

Page 20

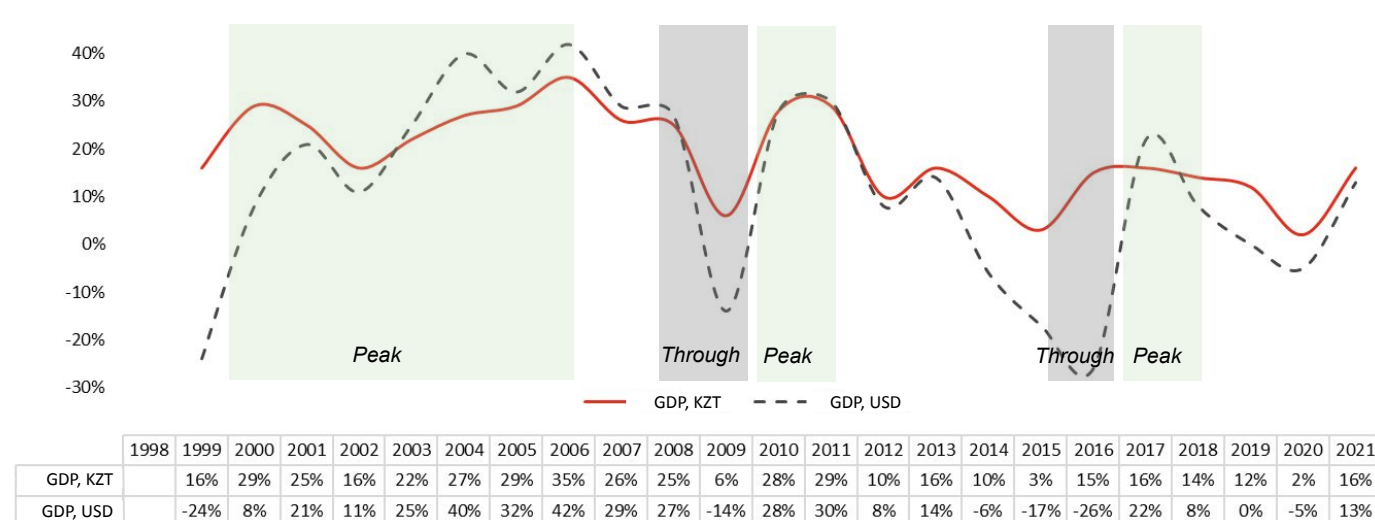
Less than or equal to 14.5%

75% of respondents expect the NBRK base rate to be less than or equal to 14.5% during the year



Economy and Investment Climate of Kazakhstan

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



The COVID-19 pandemic is no longer a headline of global news. On the agenda now—the situation in Ukraine, food crisis (which is only getting worse), disruptions in supply chains and rising global inflation. A year and a half after the start of the pandemic, it became clear that the worst economic scenarios did not become a reality. Kazakhstan's GDP grew to 82.2 trillion tenge in 2021 (at the end of 2020, GDP was 70.6 trillion tenge), which corresponds to a 16% nominal growth in tenge terms. According to 75% of experts Kazakhstan's economic cycle is at the stage of recovery and growth after the experienced shocks in recent years. In 2022, according to the forecasts of 75% of experts, the GDP of Kazakhstan may grow from 2% to 5% compared to the GDP of 2021 and reach a value of 83.9 to 86.3 trillion tenge. Genadiy Rau, Economic Affairs Specialist from ADB notes that **“Removing the COVID-19 related restrictions will lift the service sector in the short term. Meanwhile, the completion of ongoing projects to expand oil and gas production will lead to GDP growth in the medium term”**.

The global economy faced a new challenge related to geopolitical division even before it had fully recovered from the COVID-19 pandemic. The split between “West and East” has a significant impact on the Kazakhstan economy, which is heavily dependent on three main partners: Russia has always been a key trade and political partner of Kazakhstan, and the conflict in Ukraine has affected the growth of the Chinese and EU markets. According to experts, the main factor that may have the greatest impact on Kazakhstan's large-scale economic growth is a developed infrastructure (including digital infrastructure), but this requires a systematic approach and large investments.

Developed infrastructure
(including digital
infrastructure)

18%

The supremacy of law in all
spheres of state activity

12%

Predictable
macroeconomic
environment

12%

Fighting against
corruption and bribery

10%

Investment
attractiveness
of the country

12%

Greater income
equality

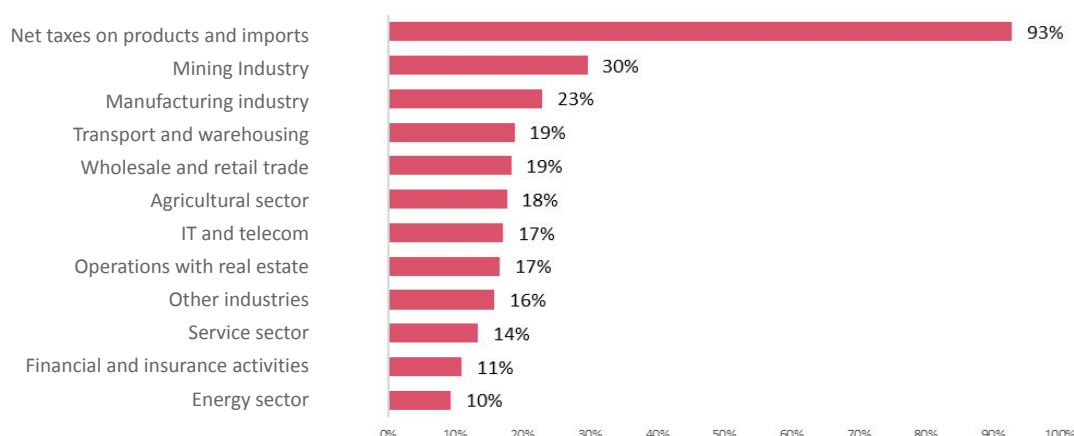
10%

A skilled and
adaptable workforce

12%

An effective
tax system

7%

Changes in Kazakhstan's GDP by economic sectors, % (Q1 2021-Q1 2022)

Source: PwC Kazakhstan Macroeconomic Report, Q1-Q2 2022. Based on stat.gov.kz data

It was noted by Kairat Mynbaev, Economics Professor, KBTU-***“The war in Ukraine caused the strongest shifts in the world economy. Their impact on Kazakhstan is difficult to predict. Sectors where we already have prerequisites should develop faster”***.

Events in Ukraine continue to change the trajectory of economic activity in various sectors. The current impact of COVID-19 exacerbates the challenges countries are facing as they need to balance support for economic recovery, rising inflation and welfare. Experts named the transport and industrial sectors, as well as the financial sector (banks, insurance/brokerage companies, FinTech) as the fastest recovering ones. The most important in the current conditions are agriculture and energy. According to respondents, the planned increase in oil production under the OPEC + agreement to balance supply and demand in the market will support the growth of the Kazakhstan economy. Sectors that will have the strongest impact on GDP growth in 2022, according to respondents are: mining-34%, metallurgy, metalworking, engineering-31%, transport and logistics-24%. According to the results of the first quarter of 2022, the gross inflow of investments into Kazakhstan amounted to \$6.9 billion, which is 54% higher than in the same period of the previous year (in first quarter of 2019, this figure was \$6.5 billion). Meanwhile, investments in the oil and gas sector amounted to only 41%, while in 2020-2021 their share was equal to more than 50%, investments in the manufacturing industry increased from 12% to 19%.

Olzhas Dzhunusov noted: ***“The growth of industry will be due to a decrease in the “personification” of state functions and the new policy tending to “institutionalize” such functions. In this case, investors will have to rely more on rational decisions, discarding political risks. Then, taking into account such factors as a rich resource base, demand for resources and immediate redistribution, proximity to raw materials, the growth of industry is possible.”***

Currently 13 special economic and 36 industrial zones which provide a preferential investment regime have been created in Kazakhstan. However, tax preferences alone are not enough for the growth of foreign direct investments (FDI), since the most important aspects for investors (especially foreign ones) are improvements in legislation (including those related to PPP), a stable tax regime and the rule of law.

Head of the state Kassym-Jomart Tokayev noted in his speech the need to ensure safe and uninterrupted export of domestic products. With a solid political and economic base Kazakhstan today is the "gateway" to the world's largest markets with a volume of more than 1 billion potential consumers, including the EAEU and China, and is rightfully considered a transit hub in Central Asia. There have been several priorities noted for the development of Kazakhstan as a hub: strengthening the railway fleet and overhauling tracks, transforming ports, particularly strengthening the navy and creating a container hub in the port of Aktau, as well as working out the best option for implementing the Trans-Caspian route, with the possibility of attracting investors.

Dialogue with Experts

How do you think the imposition of sanctions against Russia may affect the economy of Kazakhstan?

“

Some sanctioned goods are likely to pass through Kazakhstan. So far, sanctions have bypassed our country. Some experts say that this is the merit of Kassym-Jomart Tokayev's diplomacy. The West turns a blind eye to this rather because the volume of this commodity flow is small. The consequences for us will be more serious if the volume of transit increases or we start passing high-tech goods. I think a slapdown from the West would be useful, as it would be an excuse not to give in to Russian pressure. In addition, it would force the government to wake up from the euphoria caused by the influx of Russian business and get more into real production.

- **Kairat Mynbayev**
KBTU Professor

“

In relation to our economy, at the beginning of the period there were concerns about the introduction of any secondary sanctions due to close trade and economic ties with Russia. However, currently there were no direct or secondary sanctions applied against our country, and if all the restrictions imposed against Russia are observed, we believe that there is little likelihood of (secondary) sanctions against the Republic of Kazakhstan. Needless to say that the imposed sanctions against Russia have an indirect impact on the economy of Kazakhstan. We believe that there are positive and negative sides. The positive aspects include the opening opportunities for the implementations in the tourism area-the transit potential of our country. At the same time, there are certain restrictions associated with the imposed sanctions against the financial sector of Russia, which limits the activities of Kazakhstan banks and entrepreneurs. In addition, we have seen that our Tenge has highly correlated with the Russian Ruble and the parity between the Ruble and the Tenge is currently increasing, which would likely put pressure on importers of Russian goods.

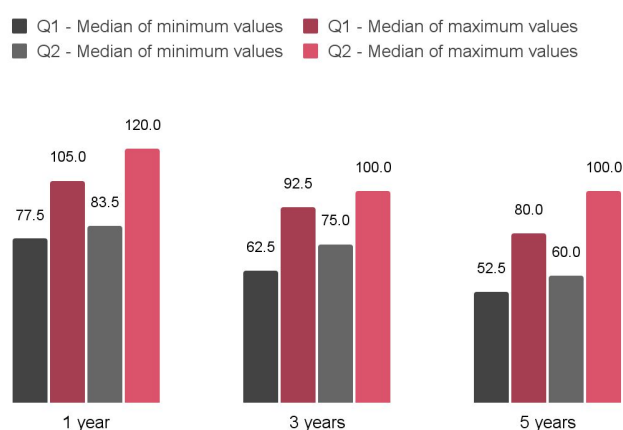
- **Marzhan Melanich**
Director of the Analytical Department, Centras Securities JSC



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?

Forecasted oil prices in US dollars per barrel



Top and bottom forecasted oil prices in US dollars per barrel



Source: PwC Kazakhstan Macroeconomic Report, Q1-Q2 2022

According to the results of the survey for second quarter 2022, the range of expected median minimum and maximum values for forecast oil prices has increased in all periods. In the perspective of one year, the medians of the minimum and maximum forecast values increased by 8% and 14%, in the perspective of three years-by 20% and 8%, and in the perspective of five years-by 14% and 25%.

Benchmark oil futures have fallen by more than \$20 per barrel since early June while trading at the level of \$100 for a barrel (price as at the report date). According to the IEA* report, global oil demand growth in 2022 will reach 99.2 million barrels per day, while in 2021 demand reached 96.4 million barrels per day. The observed world oil reserves have increased by only 5 million barrels as the increase in world crude oil reserves was offset by lower reserves in countries of the Organization for Economic Co-operation and Development (OECD).

As KBTU Economics Professor, Kairat Mynbayev, notes: ***“The West wants to minimize imports from Russia. The countries of the Middle East can quickly increase oil exports. They are restrained only by OPEC agreements. The US can also quickly increase production. OPEC will start to cut the price when the US market share starts to grow strongly”.***

According to the Fitch Solutions** report, Kazakhstan's exports will reach 1.61 million barrels per day in 2022, which is 4.0% higher than 1.55 million barrels per day in 2021 and will peak at 1.65 million barrels per day in 2023. Originally the main export markets for Kazakhstan oil have been the United States, the European Union and Southeast Asia. However, the military conflict in Ukraine in February-March 2022 significantly affected the export of Kazakhstan oil.

*Monthly Report of International Energy Agency (IEA).

**Fitch Solutions: Kazakhstan Oil & Gas Report

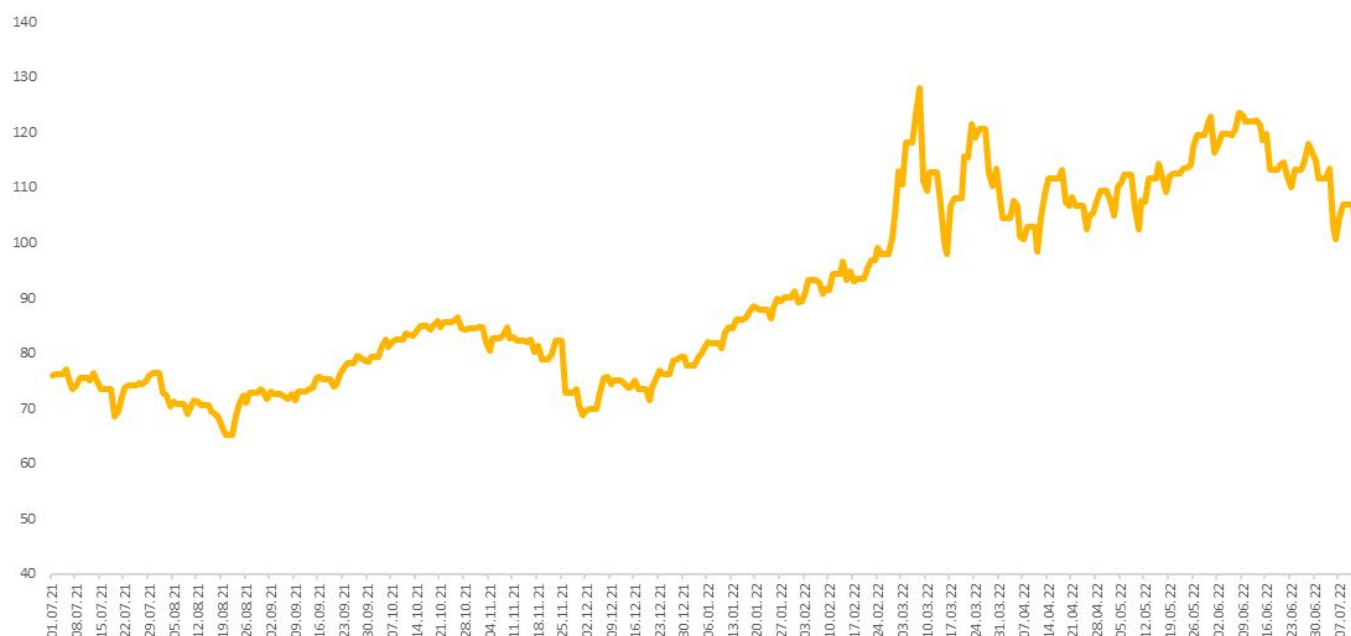
More than ⅔ of Kazakhstan's crude oil exports pass through the Caspian Pipeline (CPC), which runs through Kazakhstan and Russia with a capacity of up to 1.4 million barrels per day, which is equivalent to 2.5% of world maritime trade. Despite the fact that the CPC passes through the territory of Russia, the US and the EU exempted the export of Kazakhstan oil through this pipeline from sanctions. However, in March 2022, the Russian leadership declared this route unsuitable for Kazakhstan exports due to damage to the infrastructure of the sea terminal caused by a storm, and then in July 2022, its suspension due to environmental violations. Nevertheless, the latest decision of the Primorsky Court was cancelled, but according to the head of the union of oilfield service companies-Kazakhstan incurred losses in the amount of 300 billion tenge.

In July 2022, the President of Kazakhstan Kassym-Jomart Tokayev in a telephone conversation with the President of the European Council Charles Michel expressed the readiness to help the EU to overcome the current energy shortage. The President of Kazakhstan also called for "cooperation in the development of alternative transcontinental corridors, including the Trans-Caspian International Transport Route".

Alternative ways of delivering Kazakhstan oil to Europe (including through Aktau-Azerbaijan, Georgia, Turkey and further Europe) have their limitations (difficulties in logistics, much lower capacity (compared to CPC), high tariffs, etc.), therefore CPC will remain the most basic and cheapest route for the delivery of Kazakhstan oil for a long time to come.

Sabit Khakimzhanov noted: ***“Our dependence on oil does not mean that economic policy should be based on oil price forecasts. It would be more useful to conduct a survey of development issues and policies, not focusing on oil”***.

Brent oil price dynamics (CO1 Comdty), in US dollars



Source: PwC Kazakhstan Macroeconomic Report, Q1-Q2 2022. Based on Bloomberg data.

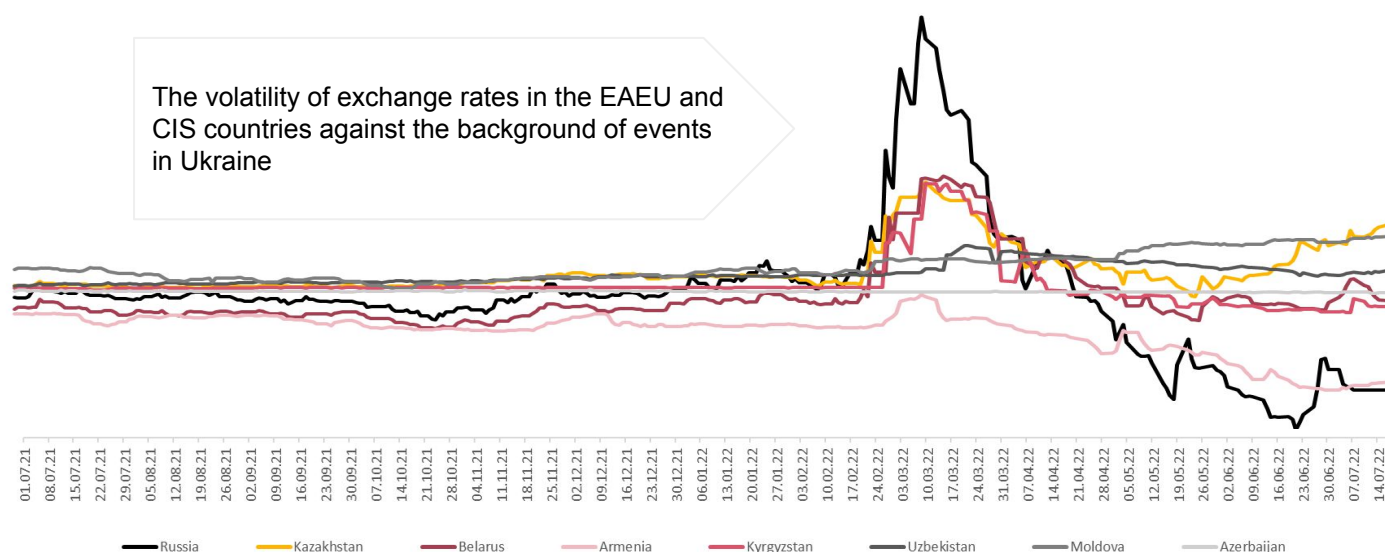


III-Exchange Rate Forecasts

Since the beginning of 2022, many national currencies of the CIS countries have shown slight growth against the US dollar despite the rising oil price. The main trigger that sharply worsened the situation in the foreign exchange market was the situation in Ukraine and the imposition of sanctions against Russia. The currencies of the EAEU countries were especially subjected to pressure. The graph shows that the national exchange rates of Kazakhstan, Belarus, Kyrgyzstan and Armenia have a very strong correlation with the depreciation of the Russian Ruble against the US Dollar. It is noteworthy that other CIS countries which are non-members of the economic union also followed the trend, but their correlation was not as strong as that of the EAEU countries. In 2022 The Kyrgyz Som, the Armenian Dram and the Belarusian Ruble showed a strong correlation with the Russian Ruble of 0.89, 0.89 and 0.94, respectively. Tenge also correlated with the Ruble, but not as strong as the currencies of other EAEU countries-0.62.

According to Sabit Khakimzhanov, ***“The medium-term uncertainty in the exchange rate now is primarily the uncertainty in fiscal policy. What will be the deficit of the public sector, including state-owned companies, and how much it will be financed from the National Fund and external debt”***.

Dynamics of the exchange rate of the national currencies of the CIS and EAEU countries against the US Dollar



Source: PwC Kazakhstan Macroeconomic Report, Q1-Q2 2022. Based on Bloomberg data.

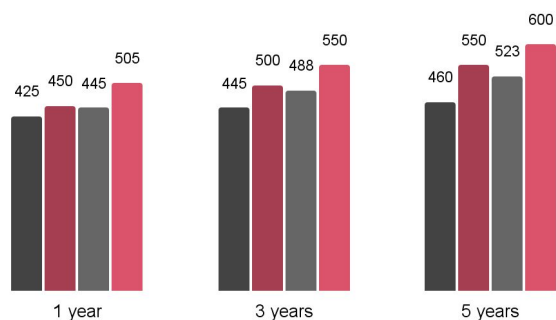
III Exchange Rate Forecasts: USD/KZT

Over the past six months tenge has experienced many external and internal risks. According to the official NBRK exchange rates, during the first six months of 2022, the national currency depreciated only by 7.7% against the US dollar from 431.8 to 465.1 tenge, however during this period of time tenge suffered strong exchange rate fluctuations, with a minimum and maximum values equal to 414.7 and 512.2 tenge per US dollar. The January events did not have a strong impact on the Kazakhstan tenge-the weighted average rate for January was 435 tenge. Yet, on the 24th of February, due to the commenced military conflict, the rate spiked to the level of 466.0 tenge per US dollar and the National Bank reacted with a raise of the base rate to 13.5% to protect tenge deposits. Despite the fact that in March tenge overcame the mark of 500 and reached its peak value of 512.2 tenge per US dollar, by the end of March the rate was at the level of 470 tenge per US Dollar. By analyzing the first quarter of 2022, it can be judged that tenge follows the Russian Ruble and weakens or strengthens its positions according to ruble movements, since Russia has been and still is a strategic trading partner for Kazakhstan. In the second quarter, due to the imposed sanctions and other political decisions, tenge continued to fluctuate-the weighted average rates for April, May and June were 453.3, 430.7 and 442.4 tenge respectively. By mid-July, the USD/KZT currency pair was traded at the level of 480 tenge per US dollar - its maximum value since the end of March this year.

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

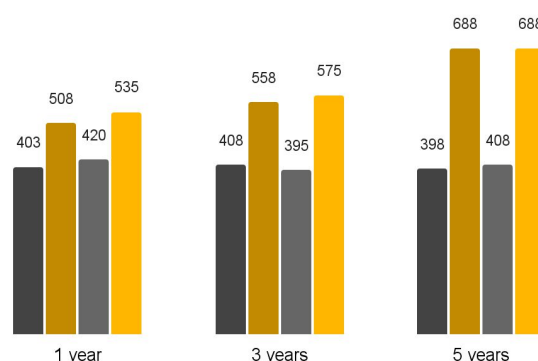
Forecasted USD/KZT exchange rates

■ Q1 - Median of minimum values ■ Q1 - Median of maximum values
■ Q2 - Median of minimum values ■ Q2 - Median of maximum values



Top and bottom forecasted exchange rates

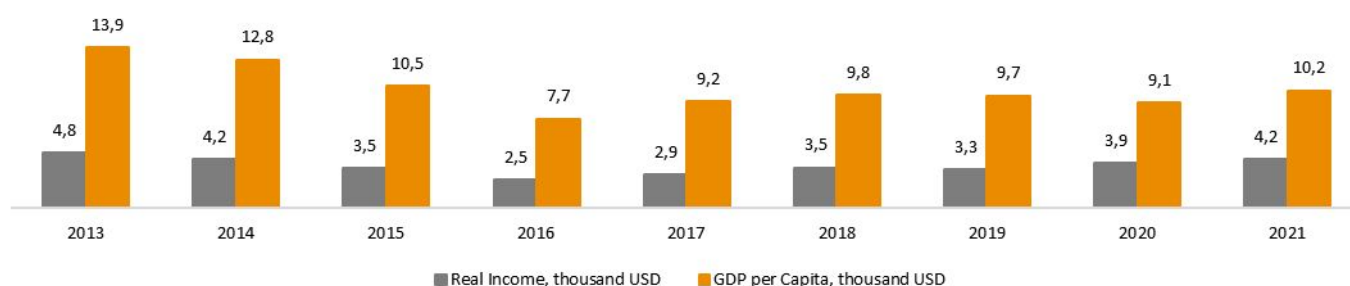
■ Q1 - Lower 30% of minimum values ■ Q1 - Upper 30% of maximum values
■ Q2 - Lower 30% of minimum values ■ Q2 - Upper 30% of maximum values



Source: PwC Kazakhstan Macroeconomic Report, Q1-Q2 2022

Respondents' forecasts for the second quarter of 2022 regarding the USD/KZT currency pair became less optimistic compared to the results of the survey for the first quarter: the medians of the maximum and minimum values increased in all forecast periods. The median of maximum values increased in the horizon of one year by 55 tenge up to 505 tenge, three years and five years-by 50 tenge up to 550 and 600 tenge, respectively. In relation to the median minimum values, the increase was not high: in the horizon of one year-by 20 tenge up to 445 tenge, three years-by 43 tenge up to 488 tenge and five years-by 63 tenge up to 523 tenge. Compared to the previous quarter, the values of the top limit of the USD/KZT currency pair increased by 5% in the one-year horizon to 535 and by 3% in the three-year horizon to 575, while in the five-year horizon they remained at the same level of 688. It should be noted that the bottom limit of the forecasted values increased in the horizon of one year and five years by 4% and 2%, and decreased by 3% in the horizon of three years.

Population's real well-being indicator



According to the latest data from the Bureau of National Statistics and the NBRK, high inflation and a high base rate will keep tenge under pressure. As Sabit Khakimzhanov noted in his interview with Forbes* magazine, "To reduce inflation in a sustainable way, we need a more restrained government spending policy in the long run, in which the real exchange rate is kept at a consistently low level". He also noted that "The inclusion of economic growth in the mandate of the National Bank will not increase the dynamics of GDP, but will only worsen the quality of GDP filling and weaken long-term growth prospects." At the end of 2021, the median wage of one employee was ~ 158 thousand tenge, and the median annual income accordingly was ~ 1.9 million tenge. The median wage index compared to 2020 was 111%. However, the real income of the population (according to the PwC methodology) in annual terms due to rising inflation and the unemployment factor amounted to ~ 1.8 million tenge, which is 5% less than the nominal indicator. The situation is aggravated by the weakening of the national currency. Despite the fact that the salary in tenger terms is growing, in dollar terms-it is falling. Annual real income in 2021 was ~ \$4.2 thousand, which complies with 2014 indicators.

* Advisor to the Chairman of the National Bank: There is no need to make a cult out of GDP growth

Dialogues with Experts

In May 2022, the National Bank conducted an intervention to purchase an excess supply of foreign currency in the amount of USD 110.5 million. Thus, by conducting a reverse intervention to weaken the national currency. In your opinion, which part of the economy benefits from a strong Tenge? Is strong Tenge beneficial for the population? In particular, will the strengthening of Tenge affect the level of median wages and the level of employment (people's well-being-a derivative of two factors)?

“

A strong tenge is a double-edged sword. Imports are cheaper, but exports suffer, and with it, gold and foreign exchange reserves suffer. It is better to focus not on strength, but on the stability of Tenge, as stability enables businesses and banks to plan better. The countries of Southeast Asia also suffered from the dual role of a strong national currency and found a way out. It is necessary to regulate imports and exports in order to stimulate the manufacturing sector. This improves the country's export opportunities and also increases the ability to regulate the national currency rate. The stability of Tenge is also needed for the stability of personal income. My income since 2016 has not changed in nominal terms, but in reality my purchasing power has fallen by 40%.

- **Kairat Mynbayev**
KBTU Professor

“

A strong tenge is beneficial, first of all, for importers of goods and services. Because they bear foreign exchange expenses and have profitability denominated in tenge. In addition to importers, a strong tenge has a positive impact on the population as well, as costs can be lower. However, our economy is export-oriented, and the budget is replenished by tax payments from our largest exporters, as a result, a weaker tenge exchange rate is beneficial for our economy. However, we believe that the stability of the national currency exchange rate is most important for the economy and business, since with high currency volatility, the risks of uncertainty increase, which forces businesses to move into less risky and reliable assets.

Regarding the question of whether the tenge exchange rate will affect wages, we believe that, most likely, this influence may be indirect, since wages within the country are not tied to the US dollar exchange rate and are paid in tenge. We believe that the level of wages is more influenced by economic activity in the country, economic growth and inflation.

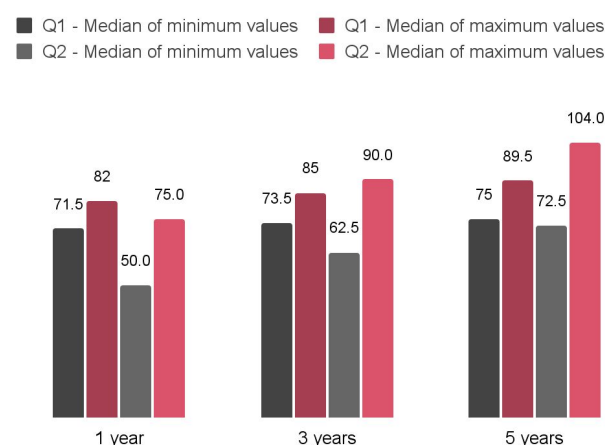
- **Marzhan Melanich**
Director of the Analytical Department, Centras Securities JSC



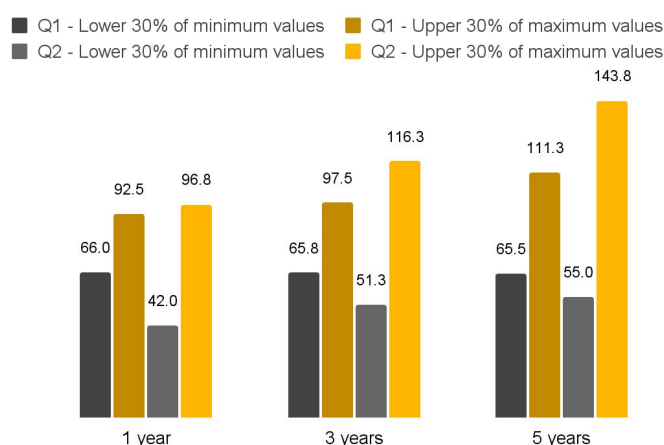
III Exchange Rate Forecasts: USD/RUB

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

Forecasted USD/RUB exchange rates



Top and bottom forecasted exchange rates



Source: PwC Kazakhstan Macroeconomic Report, Q1-Q2 2022

When comparing the survey results for first and second quarters of the current year, one can notice that the respondents' forecasts regarding the USD/RUB exchange rate are very volatile. This trend is associated with the continued imbalance of demand and supply of foreign currency in the Russian market, which depends on sanctions (the sharp strengthening of the Russian Ruble is due to the fact that the volume of imports and demand for US dollars have fallen sharply, while Russia continues to export goods).

By the end of 2021, the Russian Ruble depreciated slightly against the US dollar. However, from the end of January, and then from mid-February 2022, the RUB/USD currency pair began to update its historical highs, after which the Central Bank of Russia announced its refusal to buy foreign currency on the domestic market. At the same moment, Russia's foreign exchange reserves reached a historic high of \$640 billion and, for the first time since December 2014, the Bank of Russia announced the start of its own foreign currency interventions.

Compared to the first quarter of 2022 the median of the minimum value decreased for all periods: for a one-year horizon by 21.5 up to 50.0 rubles, for three years by 11.0 up to 62.5 rubles, and for a five-year horizon by 2.5 up to 72.5 rubles. The median of the maximum value decreased in the horizon of one year by 7 to 75 rubles, while it increased in the horizon of three and five years by 5 to 90 rubles and by 14.5 to 104.0 rubles, respectively.

The high ruble exchange rate is also supported by the absence of foreign trade relations. Imports have decreased, as well as foreign investments and tourism. The Central Bank of Russia banned non-residents from withdrawing capital from the country. Previously, this foreign currency inflow was offset by purchases of foreign currency by the Ministry of Finance under the fiscal rule and capital outflows. However, after the imposition of Western sanctions, both of these channels of currency sterilization have been closed, and the ruble may continue to strengthen.

IV-Consumer Price Index

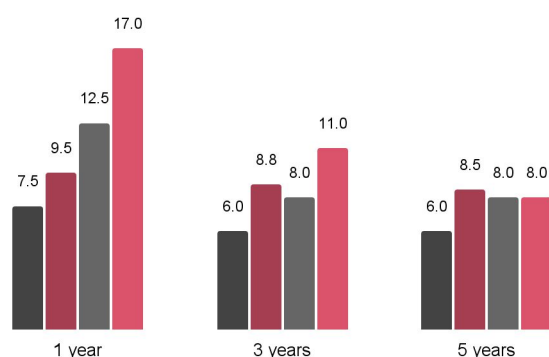
In your opinion, what inflation indicators (in particular, the consumer price index-CPI) in Kazakhstan are most likely for the forecasted periods?

The global economy is experiencing a significant increase in inflation for the second year consecutively. Against the background of geopolitical risks, since the beginning of 2022 high inflation has been observed in the global economy despite the tightening of the monetary policy of many central banks of the world. Inflation remains at a high level not only in the CIS countries, but also in developed countries.

Annual inflation in June amounted to 14.5%, and in June-1.6%. The experts' survey results in the second quarter of 2022 regarding CPI values revealed that, according to the expectations of 92% of respondents, the inflation rate in the one year horizon will not exceed 17% on average. Over a three year horizon, more than 60% of experts expect that inflation will not exceed 11%. As for the five year forecasts, more than 50% of respondents believe that inflation will be below 8%. For the purpose of reducing inflation, the country's government is taking comprehensive measures: raising the base rate, a ban on the export of products (experiencing a deficit) outside the Republic of Kazakhstan.

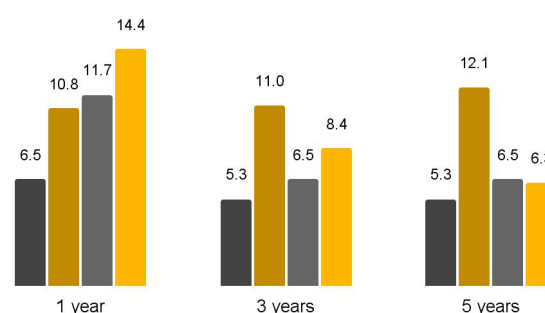
Forecasted CPI, %

■ Q1 - Median of minimum values ■ Q1 - Median of maximum values
■ Q2 - Median of minimum values ■ Q2 - Median of maximum values



Top and bottom CPI forecasts, %

■ Q1 - Lower 30% of minimum values ■ Q1 - Upper 30% of maximum values
■ Q2 - Lower 30% of minimum values ■ Q2 - Upper 30% of maximum values



Source: PwC Kazakhstan Macroeconomic Report, Q1-Q2 2022

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Inflation is a stable macroeconomic indicator that responds to monetary policy with a lag of up to 1 year. The West has already begun to raise interest rates. We have not, which means that our inflation will last longer. In the long term, the weakness of our economy and the populist policies of the government will be manifested.

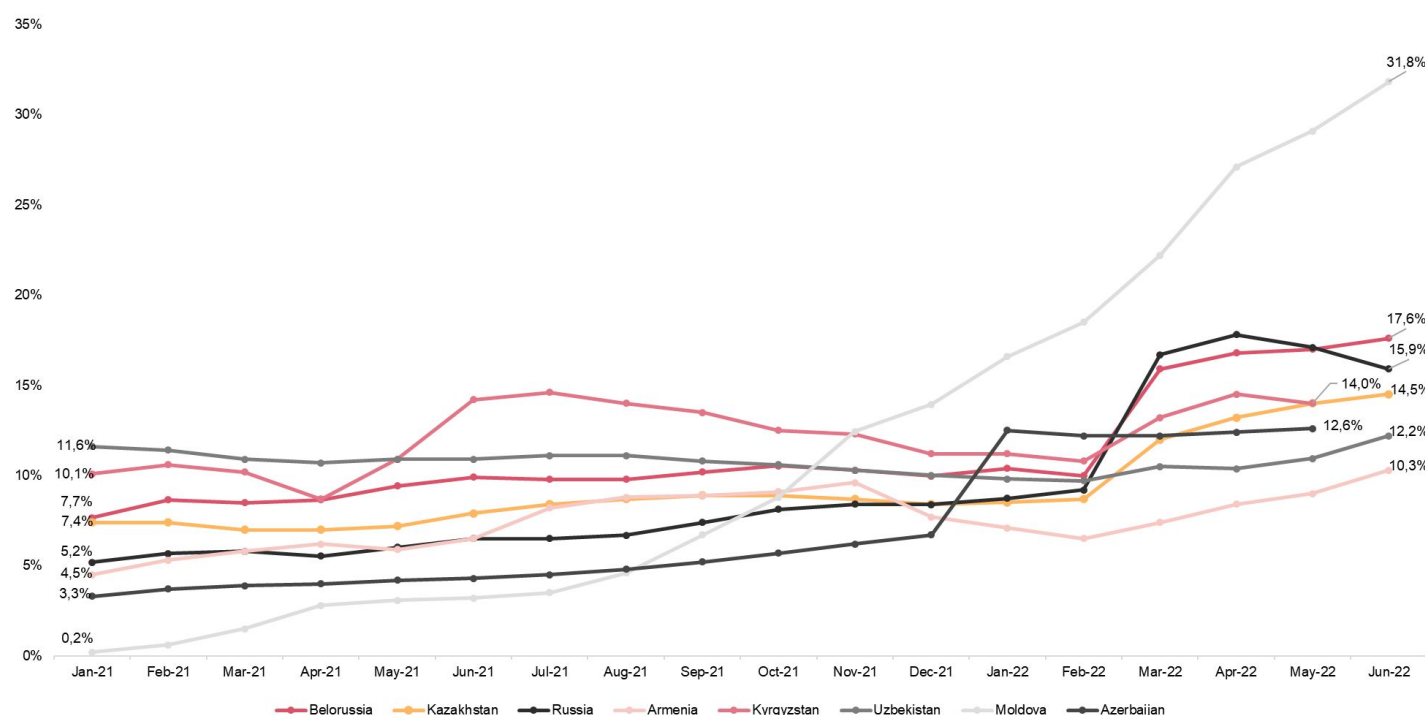
- **Kairat Mynbayev**
KBTU Professor

Survey results for the second quarter of 2022, compared to the previous one, reflected the moderately pessimistic expectations of respondents. In the short term, respondents expect an increase in inflation, followed by a decline in the long term. In the horizon of all periods, respondents' expectations regarding bottom median inflation increased: one year by 7.9%, three years and five years by 1.2%, respectively. However, top median values increased in the period of one year and three years, and decreased in the horizon of five years. The values for one year were 17.0% and 12.5%, for three years - 11.0% and 8.0%, for five years - 8.0%. An increase in inflation expectations between the quarters of 2022 could be driven by inflation growth trends around the world, a recovery in consumer activity and a revival in the service sector, as well as concerns about inflationary pressure from Russia on the national economy.

Production costs, and subsequently the prices for the manufactured products, are rising at a record pace due to reduced supply and/or disruption of logical supply chains. In the context of a difficult international situation, the relevance of food security is multiply increasing. Rising prices for grain products are due to the highest inflation for wheat in the world, which relates to the imposition of a ban on wheat exports in India, restrictions on wheat exports by Russia and a decrease in expected production in Ukraine as a result of the conflict. Record prices for sugar are caused by Kazakhstan's high dependence on imported products. According to PwC Kazakhstan's analysis of changes in food prices (for the period January-June 2022), prices for imported sugar increased by 41%, and prices for sugar produced within a country fell by 14%. The prices for cereals and beans imported from Russia rose by 550%, while prices for local products rose only by 20%.

Despite the fact that Kazakhstan by the end of 2021 showed an optimistic trend of slowing inflation to 8.4%, since the beginning of the aggravation of the political situation, inflation accelerated in March to a record 3.7% compared to the previous month, reaching an annual inflation rate of 12.0% in March. However, after the primary shock, monthly inflation in Kazakhstan began to slow down to 2.0% and to 1.4% in April and May respectively, but at the same time remained at the same high level. At the end of June, annual inflation reached a record level of 14.5% since 2016. It is worth noting that there was strong growth in the food sector of 19.2%. This trend has affected not only Kazakhstan but also the territory of the EAEU member states. The graph shows that since the beginning of 2021, inflation in Kazakhstan, Belarus and Russia has been moving with the most similar trend, compared to countries outside the EAEU. Other CIS countries showed a more multidirectional trend: Uzbekistan's inflation rate was declining throughout 2021, while inflation in Moldova and Azerbaijan began to grow rapidly after August 2021. Despite multidirectional trends over the entire analyzed period, all CIS countries have been feeling inflationary pressure since March 2022 caused by sanctions against Russia.

Dynamics of inflation in the CIS and EAEU countries, %



Source: PwC Kazakhstan Macroeconomic Report, Q1-Q2 2022. Based on Trading Economics data.

Dialogue with Experts

How do you think high inflation and GDP contraction in Russia will affect Kazakhstan? From an economic point of view, which position is beneficial for Kazakhstan: to remain in or leave the EAEU?

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I have read some documents from the pre-war past and they clearly show that the EAEU as a whole has never been good for us. There were individual advantages, but they could be achieved through bilateral agreements. The export of Russian inflation to Kazakhstan will occur, first of all, due to the inflow of Rubles. Regarding our banking system, allowing such an influx will be a crime for which the entire population will have to answer, not just an omission. Basically, it would be possible to make money on the contraction of Russia's GDP by producing what Russia lacks, but not with our raw materials focus.

- **Kairat Mynbayev**
KBTU Professor

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Kazakhstan is also experiencing high inflation and a slowdown in GDP growth. This trend is similar now for many countries around the world.

The creation of the EAEU made it possible for the member states to ensure the freedom of movement of goods, services, capital and labor. Moreover, Kazakhstan was once one of the founders of this union. Certainly, there has been a lot of speculation lately about membership in the EAEU. However, we believe that at present, the benefits of membership in the EAEU for Kazakhstan are greater than from leaving the union.

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

IV-NBRK Base Rate

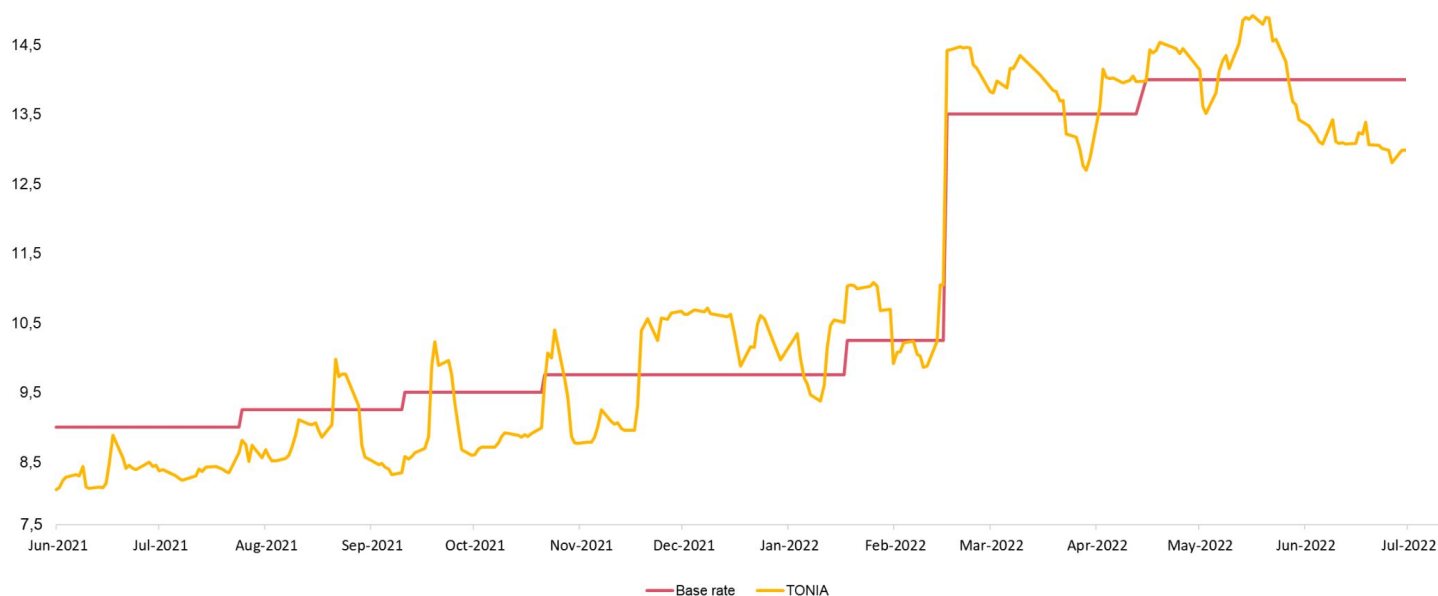
In your opinion, what NBRK base rate values are most likely for the time horizons under consideration?

Since the beginning of 2022, the TONIA indicator has mostly been above the level of the national base rate amid geopolitical risks. Statistical data shows that in the period of urgent need for tenge borrowing by money market participants, for example, during tax weeks or the need to preserve foreign exchange assets, the level of TONIA interest yield exceeds the base rate level.

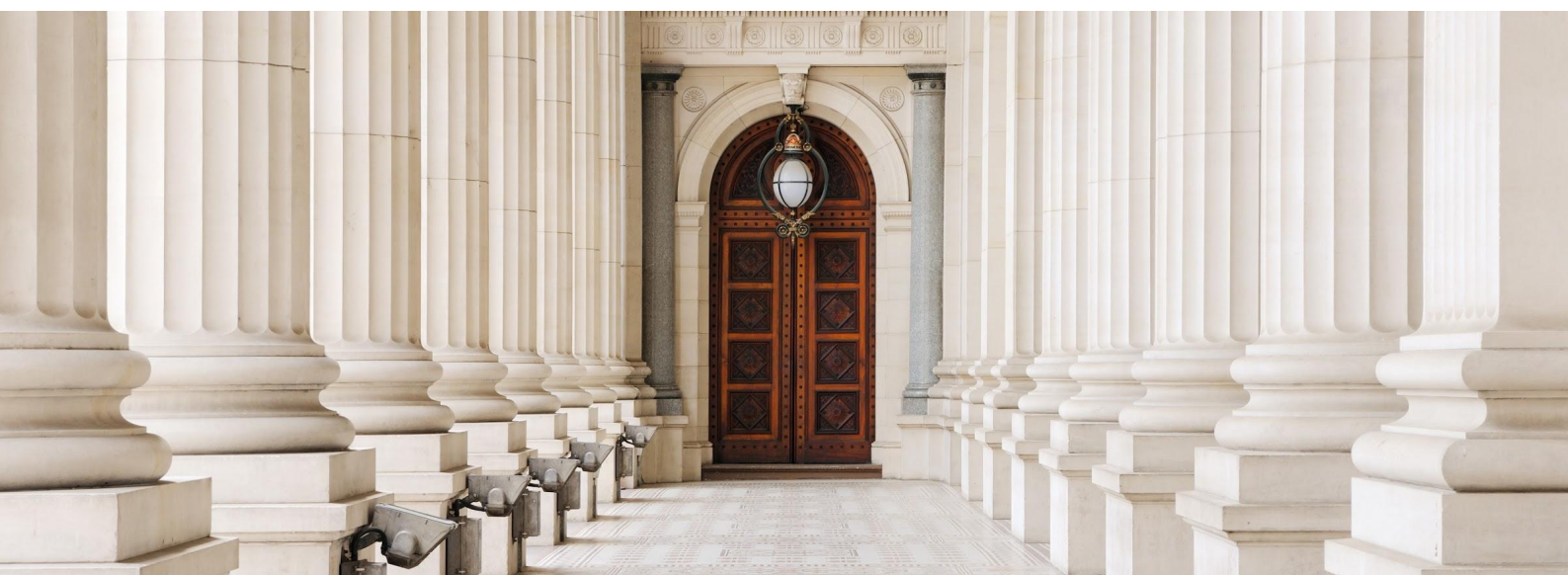
At the time of growing demand for tenge, money market players very clearly reflected the general mood, pledging government securities instead of foreign currency assets. At this point, the TONIA index rose to 11.0% with a base rate of 10.25%. Another indicator of the market reaction was the growth of the index to 14.4%, with a base rate of 13.5%, in February 2022, when sanctions were imposed against Russia due to the aggravation of the conflict with Ukraine.

For the first time since March 2020, the index reached its historical high and continued to keep this level until June 2022 with an exception of early April. At the same time, the National Bank raised the base rate several times from 10.25% to 14.0%.

Changes in base rate and TONIA index



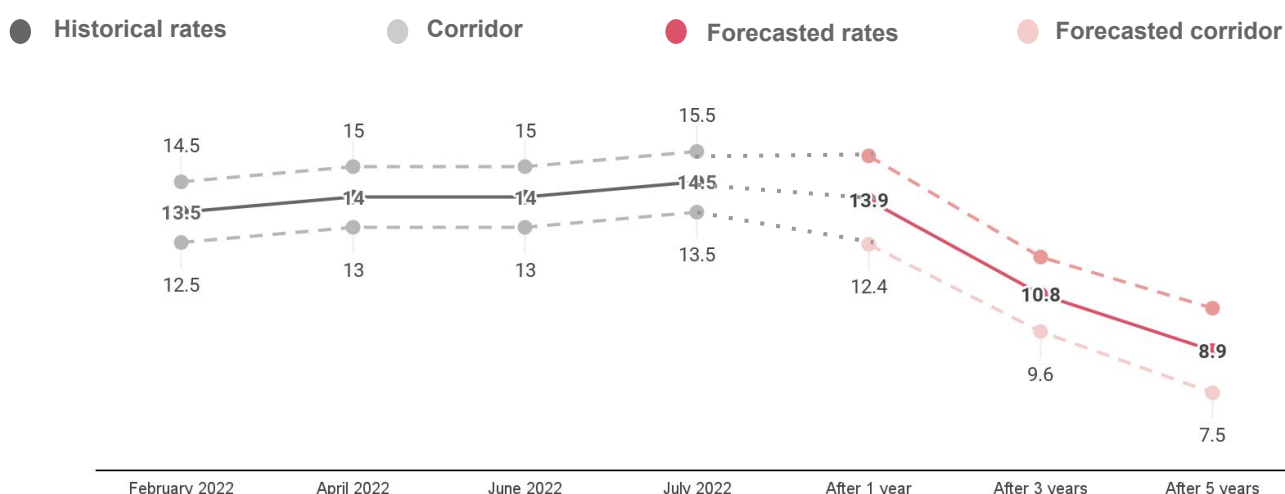
Source: PwC Kazakhstan Macroeconomic Report, Q1-Q2 2022. Based on KASE and NBRK data.



According to the latest decision of the NBRK*, the current value of the base rate was raised to 14.5% with a corridor of ± 1 p.p. According to the press release, this decision was made taking into account the significant excess of actual inflation over the forecast trajectory against the background of accelerating inflationary expectations. Both the stable component of consumer prices and the general price levels are rising. The inflation in May and June of this year shows that its peak has not been passed. High inflation expectations increase pro-inflationary pressures. According to the NBRK, the current decision is aimed at stabilizing and slowing down inflationary processes and expectations in 2023, as well as bringing inflation closer to the target in the medium term.

The results of the survey for second quarter show that experts expect a slight decrease in the base rate, compared to the current value set on the 26th of July 2022 of 14.5%, and in the perspective of one year, respondents predict its value at 13.9%. Earlier, in February, at an extraordinary meeting due to the geopolitical factor of Russia and Ukraine, the base rate increased immediately by 325 basis points. It could be assumed that the increase in a base rate is a temporary measure of Kazakhstan financial regulator to support the sharply falling tenge, however, in April and further in July, the regulator again raised the base rate by 50 basis points due to the realization of geopolitical risks, increase in prices world wide and within the countries-trade partners of Kazakhstan, which led to increase in domestic prices. Compared to one-year forecasts, on the horizon of three and five years, experts predict changes in the base rate down to 10.8% and 8.9%, respectively.

Changes in expectations for the NBRK base rate



Source: PwC Kazakhstan Macroeconomic Report, Q1-Q2 2022 (forecast values), NBRK (historical values)

* NBRK press release on maintaining the Base Rate to 14.5% dated July 26, 2022

Pro-inflationary risks in the economy do not allow to weaken monetary policy, specifically the reduction of the base rate. As analysts note, it is impossible to lower the base rate below the level of inflation, since tenge depreciation will only give an impetus to accelerate inflation. However, the Ministry of Finance of the Republic of Kazakhstan notes that this indicator affects not only inflation but also all rates in the economy: deposits, loans, coupon securities, etc. Due to the high interest rates, it is more difficult for Kazakhstan to raise funds for lending to the economy.



Dialogue with Experts

Currently, the National Bank of the Republic of Kazakhstan and the Ministry of Finance disagree on the base rate level. Is there a base rate level that can satisfy both parties? In your opinion, what are alternative ways/methods to support economic growth?

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The situation with the government economic policy has not changed: there is still no meaningful and large-scale plan for country's industrialization. This is reflected in the disagreements between NBK and the Ministry of Finance. These disagreements would not matter much if there were a common strategy. We have at least 7 ministries that, if posing the right question, should collaborate with NBK. The correct strategy exists and is described in detail in the literature in relation to South Korea. In South Korea, during a period of high growth of its economy, the base rate reached 20%, and inflation reached 30%. There were many other shortcomings. However, the economy grew rapidly as the right industrial policies were applied. The most radical method for us would be to develop an industrial policy with the help of the South Korean government.

- **Kairat Mynbayev**
KBTU Professor

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We also believe that a high base rate could put pressure on the economy, which could lead to a slowdown or decline in business activity in the country. Whereas with the current events in the world economy, it is very significant to support our economy. However, high inflation and tenge depreciation are now forcing the regulator to maintain a tight monetary position, as regulators around the world are doing. Unfortunately, it is generally believed that one of the effective measures to combat inflation is the tightening of monetary policy-raising the base rate, reducing the amount of cash in the economy. However, such measures, in a weak economy, lead to a decrease in business activity in the country and the risks of a recession. The higher the rate, the more effective the fight against inflation is likely to be. Unfortunately, at present, we see no improvement in inflation. The latest data for June showed an increase in inflation in Kazakhstan to 14.5%, but in April we observed a decrease in prices for socially significant goods, which suggests that the regulator will still consider options for raising the rate.

In addition to tightening monetary policy, the government is taking other measures to support the economy. For example, as a subsidy of socially important areas of lending (mortgages, SMEs, etc.), price containment by prohibiting price increases for socially significant goods, food and services, currency control, foreign exchange interventions, purchasing and selling government bonds in the domestic market. These measures require quite a lot of funding from the budget.

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

Summary Table of Indicators

Section	Indicator	Period	Q1-21	Q2-21	Q3-21	Q4-21	Q1-22	Q2-22
Oil price	the median of minimum values	1 year	50.0	57.0	60.0	68.0	77.5	83.5
		3 years	52.5	54.5	53.5	60.0	62.5	75.0
		5 years	50.5	56.0	50.0	50.0	52.5	60.0
	the median of maximum values	1 year	60.0	71.0	77.5	90.0	105.0	120.0
		3 years	65.0	72.5	80.0	85.0	92.5	100.0
		5 years	70.0	75.0	80.0	85.0	80.0	100.0
	bottom 30% of minimum values	1 year	42.4	45.0	45.0	51.7	66.3	89.3
		3 years	39.0	39.0	42.0	46.7	52.5	81.0
		5 years	35.0	35.0	40.0	40.0	41.3	79.3
	top 30% of maximum values	1 year	69.6	77.8	85.0	101.7	117.5	109.5
		3 years	77.0	79.0	89.0	118.3	118.0	98.3
		5 years	87.0	88.0	99.0	123.3	126.3	98.8
USD/KZT exchange rate	the median of minimum values	1 year	415.0	420.0	422.5	420.0	425.0	445.0
		3 years	440.0	430.0	432.5	430.0	445.0	487.5
		5 years	467.0	440.0	440.0	440.0	460.0	522.5
	the median of maximum values	1 year	440.0	445.0	450.0	446.0	450.0	505.0
		3 years	480.0	463.0	490.0	480.0	500.0	550.0
		5 years	538.0	493.0	500.0	500.0	550.0	600.0
	bottom 30% of minimum values	1 year	400.0	407.8	408.0	412.0	402.5	420.0
		3 years	404.0	413.4	404.0	407.0	407.5	395.0
		5 years	402.0	413.6	404.0	400.0	397.5	407.5
	top 30% of maximum values	1 year	480.0	470.6	490.0	517.0	507.5	535.0
		3 years	570.0	522.2	565.0	640.0	557.5	575.0
		5 years	670.0	572.8	640.0	743.0	687.5	687.5
RUB/KZT exchange rate	the median of minimum values	1 year	5.5	5.5	5.6	5.6	5.3	6.0
		3 years	5.6	5.5	5.6	5.7	5.4	5.3
		5 years	5.7	5.5	5.6	5.7	5.4	5.0
	the median of maximum values	1 year	6.0	6.0	6.0	6.4	6.0	9.3
		3 years	6.2	6.2	6.2	6.5	6.2	8.3
		5 years	6.3	6.2	6.1	6.4	6.5	7.8
	bottom 30% of minimum values	1 year	5.1	5.1	5.2	5.3	5.0	4.0
		3 years	5.1	4.9	5.3	5.2	4.9	3.7
		5 years	5.0	4.8	5.2	5.0	4.5	3.8
	top 30% of maximum values	1 year	6.7	6.1	6.2	7.0	6.3	10.5
		3 years	7.8	6.8	6.7	7.9	6.7	11.2
		5 years	8.7	7.4	6.9	8.7	6.8	12.1

Summary Table of Indicators

Section	Indicator	Period	Q1-21	Q2-21	Q3-21	Q4-21	Q1-22	Q2-22
USD/RUB exchange rate	the median of minimum values	1 year	70.0	71.0	70.0	70.0	71.5	50.0
		3 years	71.0	71.0	71.0	70.0	73.5	62.5
		5 years	73.5	73.0	75.0	75.0	75.0	72.5
	the median of maximum values	1 year	79.0	79.0	77.0	75.0	82.0	75.0
		3 years	82.0	80.0	80.0	80.0	85.0	90.0
		5 years	85.0	83.5	84.0	83.0	89.5	104.0
	bottom 30% of minimum values	1 year	66.0	66.2	67.0	65.0	66.0	42.0
		3 years	62.4	66.2	64.8	64.0	65.8	51.3
		5 years	62.0	65.7	64.4	63.0	65.5	55.0
	top 30% of maximum values	1 year	80.0	81.0	81.0	82.0	92.5	96.8
		3 years	88.0	87.4	86.8	85.0	97.5	116.3
		5 years	96.5	93.0	94.4	93.0	111.3	143.8
CPI expectations	the median of minimum values	1 year	6.0	6.0	7.0	7.5	7.5	12.5
		3 years	5.0	5.0	5.0	6.0	6.0	8.0
		5 years	4.5	4.4	4.5	5.0	6.0	8.0
	the median of maximum values	1 year	8.0	7.5	8.4	8.9	9.5	17.0
		3 years	7.0	6.5	7.3	8.0	8.8	11.0
		5 years	6.0	6.0	6.8	7.0	8.5	8.0
	bottom 30% of minimum values	1 year	4.7	4.1	5.7	5.3	6.5	11.7
		3 years	3.8	3.2	4.6	4.2	5.3	6.5
		5 years	3.4	2.8	3.9	3.7	5.3	6.5
	top 30% of maximum values	1 year	14.0	12.2	11.1	11.2	10.8	14.4
		3 years	13.7	12.3	10.8	11.3	11.0	8.4
		5 years	13.0	13.4	10.6	15.7	12.1	6.3
Base rate expectations	Base rate	1 year	8.5	8.6	8.6	8.6	10.8	13.9
		3 years	7.8	7.8	7.8	7.8	9.2	10.8
		5 years	7.1	7.2	7.2	7.2	8.1	8.9
	Corridor	1 year	1.0	1.1	1.1	1.1	0.9	1.5
		3 years	1.0	1.0	1.0	1.0	1.0	1.2
		5 years	1.1	1.0	1.0	1.0	1.1	1.3

Acknowledgements

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